



Montana Fish, Wildlife & Parks

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August 10, 2000

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Mark Taylor, 139 N Last Chance Gulch, Helena, 59601

Ladies and Gentlemen:

The enclosed draft Environmental Assessment (EA) has been prepared for BCD Land & Livestock alternative livestock facility expansion as proposed by David, Craig, and Brian Tutvedt, and is submitted for your consideration.

Questions and comments will be accepted or must be postmarked no later than 5:00 p.m., August 31, 2000. Please direct your questions or comments to Game Warden Brian Sommers, Montana Fish, Wildlife & Parks, 490 N. Meridian Road, Kalispell, MT 59901. Thank you.

Sincerely,


Dan Vincent
Regional Supervisor

DV/nli
Enclosure

Flathead

DRAFT

**ENVIRONMENTAL
ASSESSMENT**

**PROPOSED EXPANSION OF
TUTVEDT'S BCD LAND & LIVESTOCK
ALTERNATIVE LIVESTOCK OPERATION**

AUGUST 2000

**Montana Fish, Wildlife & Parks
Region 1
490 North Meridian Road
Kalispell, Montana 59901**

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SUMMARY

DRAFT ENVIRONMENTAL ASSESSMENT PROPOSED EXPANSION OF TUTVEDT'S BCD LAND & LIVESTOCK ALTERNATIVE LIVESTOCK OPERATION

INTRODUCTION

Montana Fish, Wildlife & Parks (FWP) is required to perform an environmental analysis in accordance with the Montana Environmental Policy Act (MEPA) for each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment (Administrative Rules of Montana [ARM] 12.2.430). FWP uses environmental assessments (EAs) in the Alternative Livestock Operation licensing process to identify and evaluate environmental impacts of a proposed Alternative Livestock Operation. EAs also determine whether the impacts would be significant and whether, as a consequence, FWP would perform a more detailed environmental impact statement (EIS).

When preparing an EA, FWP reviews environmental impacts of the Proposed Action, impacts of the No Action Alternative, and impacts of other alternative actions which include recommended and/or mandatory measures to mitigate the project's impacts. A mitigated EA includes alternatives with enforceable requirements (stipulations) which reduce impacts of the Proposed Action below the level of significance. The EA may also recommend a preferred alternative for the FWP decision maker.

This EA is prepared by FWP for a proposed expansion of Tutvedt's BCD Land & Livestock Alternative Livestock Operation located between Kalispell and Whitefish, Montana based on its review of the alternative livestock operation license application.

OBJECTIVES

This EA has been prepared to serve the following purposes in accordance with FWP MEPA rules (ARM 12.2.430):

- ensure that FWP uses natural and social sciences in planning and decision making;
- to be used in conjunction with other agency planning and decision-making procedures to make a determination regarding the Proposed Action;
- assist in the evaluation of reasonable alternatives and the development of conditions, stipulations, and modifications to the Proposed Action;
- determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the Proposed Action;
- ensure fullest appropriate opportunity for public review and comment on the Proposed Action; and
- examine and document the effects of the Proposed Action on the quality of the human environment.

PUBLIC PARTICIPATION

Public involvement in the EA process includes steps to identify and address public concerns. The Draft EA will be available for public review and comment from August 10, 2000 until 5 pm August 31, 2000 from the Region 1 FWP office. Comments regarding this EA should be submitted to FWP at the location specified below:

Mr. Dan Vincent, Regional Supervisor
Fish, Wildlife & Parks, Region 1
490 North Meridian Road
Kalispell, Montana 59901
Phone: (406) 752-5501

PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

FWP received an initial application dated April 14, 2000 from Brian, Craig, and David Tutvedt to expand their alternative livestock facility in Flathead County, Montana. FWP received the application on April 18, 2000, and accepted the application as complete in a letter to the Tutvedts dated May 16, 2000. The proposed expansion to the BCD Land & Livestock alternative livestock facility is located between the towns of Kalispell and Whitefish, Montana (approximately 7 miles northwest of Kalispell and 10 miles southwest of Whitefish) (Figure 1). Relatives of the applicants live adjacent to the proposed expansion site (Figure 2).

The proposed expansion site is located immediately south of the existing licensed alternative livestock facility (license no. 132) (Figure 2). The proposed alternative livestock expansion is located in the SW $\frac{1}{4}$ of Section 3 and SE $\frac{1}{4}$ of Section 4, Township 29 North (T29N), Range 22 West (R22W) and would add 82 acres to the existing 38-acre facility. The existing facility is licensed for up to 200 elk in the same sections listed above. An EA and Decision Document were prepared by FWP in 1997 for the 38-acre alternative livestock facility.

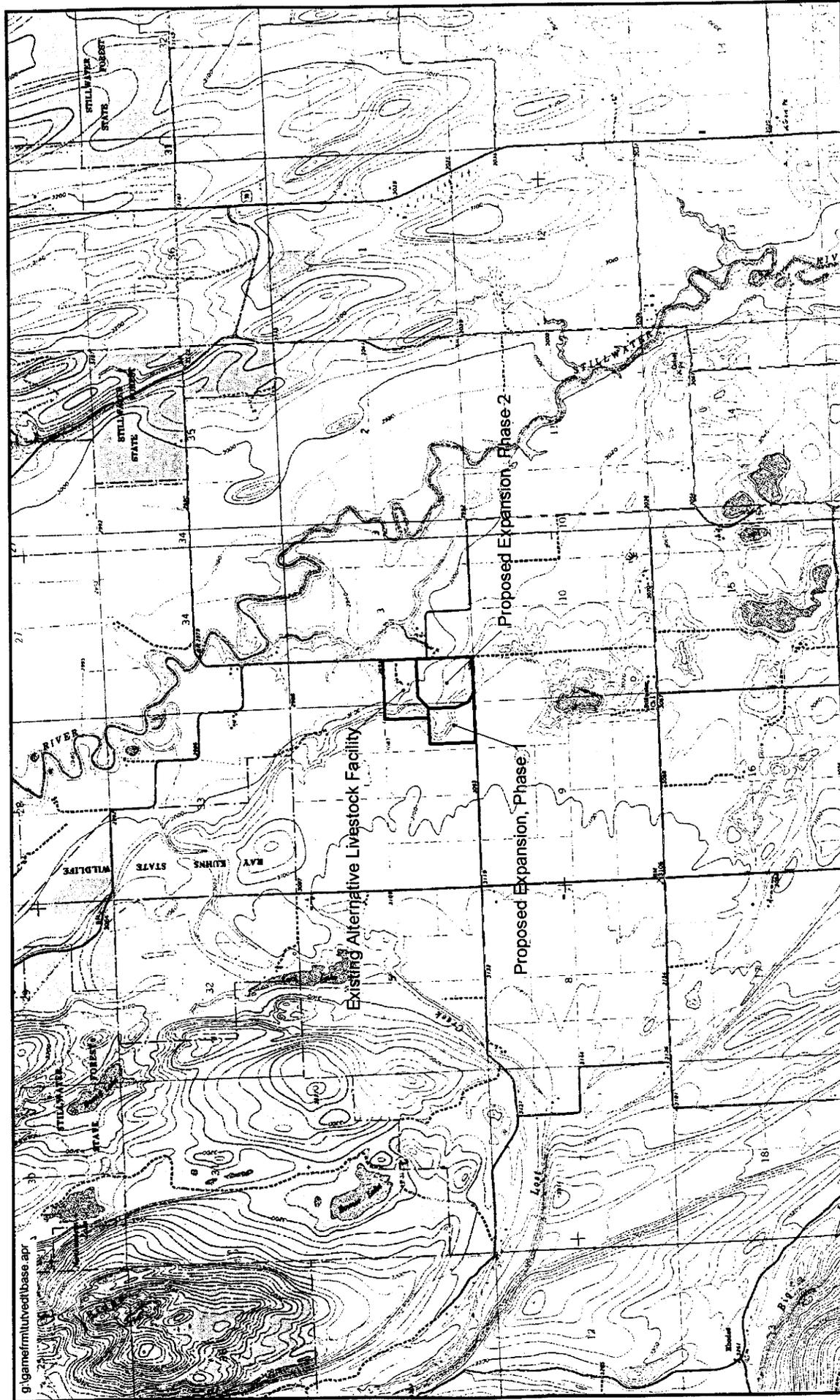
The applicants propose that up to 600 alternative livestock (elk) be allowed in the 120-acre enclosure (proposed 82-acre enclosure and existing 38-acre facility) on a year-round basis. The expansion is proposed to be completed in two phases: Phase 1 = 34 acres, and Phase 2 = 48 acres, both of which are expected to be completed by the fall of 2003.

Purposes of the proposed alternative livestock facility include: breeding stock, meat production, and antler production. According to the applicants, no public shooting of alternative livestock would be allowed in the enclosure. Alternative livestock to occupy the expanded facility would be procured from licensed facilities; however, none have been identified at this time. Wild animals would be removed from the enclosure prior to licensing by FWP.

Fence construction would be completed in accordance with requirements of FWP under ARM 12.6.1531. Fencing would consist of 8-foot high, high-tensile, Tightlock steel wire fencing on steel posts. The fence bottoms would be installed to provide not more than 3 inches of ground clearance. Five exterior gates would be constructed for the proposed expansion fence (Phases 1 and 2; Figure 2). A handling and quarantine facility located in the existing 38-acre alternative livestock facility (Figure 2) would be used for the proposed new facility. Water for the proposed expansion would come from a well that also supplies water for the existing facility.

ALTERNATIVES

One alternative (No Action alternative) is evaluated in this EA. Under the No Action alternative, FWP would not issue a license for expanding the existing 38-acre BCD Land & Livestock alternative livestock operation as proposed. Therefore, no alternative livestock would be placed in the proposed enclosure. Implementation of the No Action alternative would not preclude other activities allowed under local, state, and federal laws to take place at the proposed alternative livestock site.



Site Map
 Tutvedt - BCD Land and Livestock
 Alternative Livestock Facility Expansion
 Flathead County, Montana
 FIGURE 1

Land Ownership

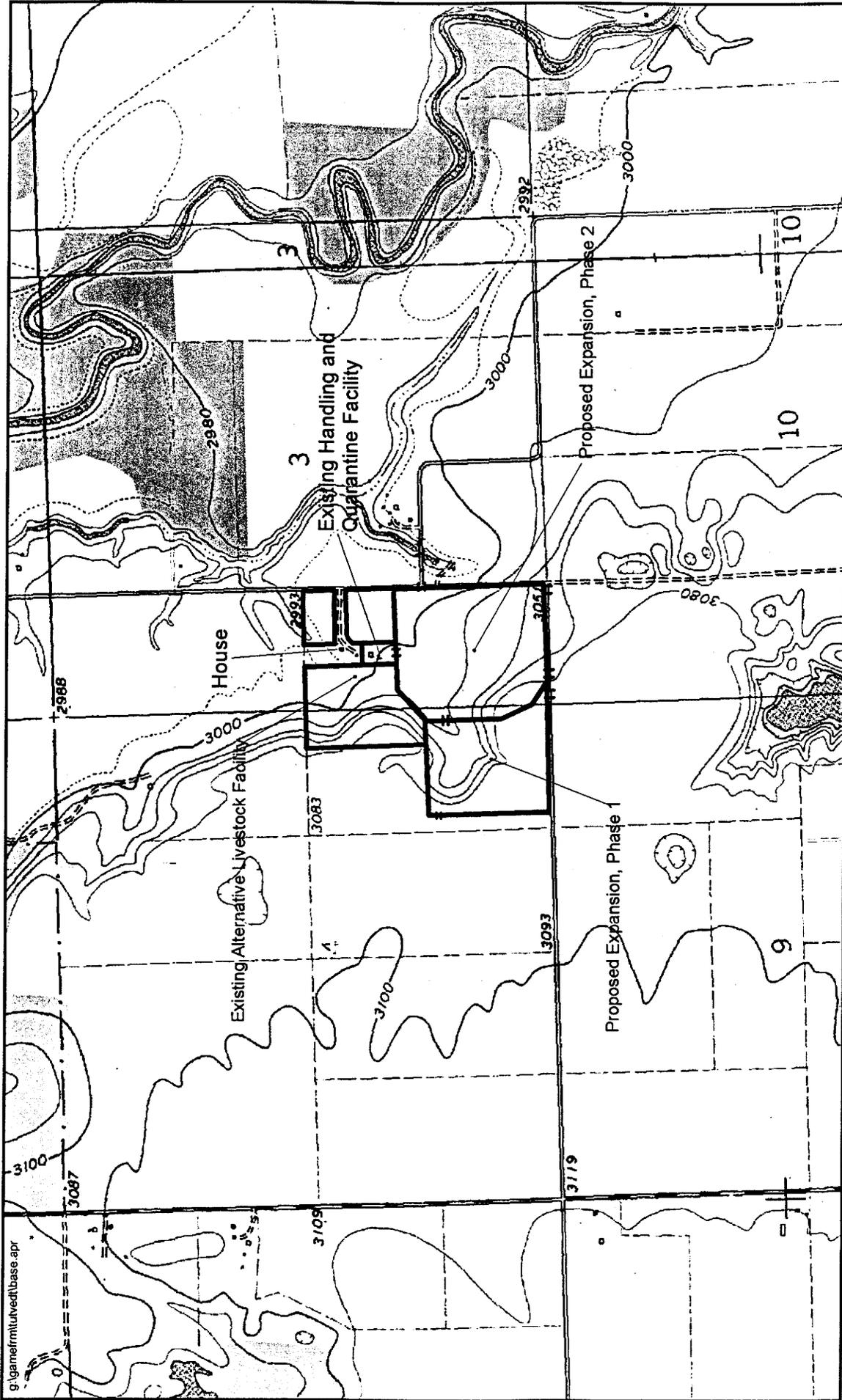
-  Private
-  National Forest
-  State

Note: Ownership data derived from
 Bureau of Land Management
 Montana Public Lands, 1:100,000
 Scale Quadrangles. Topographic
 base derived from U.S.G.S.
 1:24,000 scale quadrangles.



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Land Use / Land Cover
 Tutved - BCD Land and Livestock
 Alternative Livestock Facility Expansion
 Flathead County, Montana
FIGURE 2

|| Gate
 Landuse/Landcover
 Mixed Forest
 Crop/Pasture

Note: Land use data comes from the U.S. Geological Survey's Geographic Information Retrieval and Analysis System (GIRAS), 1:250,000 Scale Quadrangles. Topographic base derived from U.S.G.S. 1:24,000 scale quadrangles.



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PURPOSE AND NEED OF THE PROPOSED ACTION

Expansion of the existing BCD Land & Livestock alternative livestock operation would be a private commercial enterprise that would provide for breeding stock, meat production, and antler production. These activities do not currently occur on the 82-acre property for which the proposed operation would be located; however, they do occur on the existing 38-acre alternative livestock facility located adjacent to the proposed enclosure.

ROLE OF FWP AND DOL

Montana Fish, Wildlife & Parks (FWP) is the lead agency in preparing this EA for the proposed project. This document is written in accordance with the Montana Environmental Quality Council (EQC) MEPA Handbook and FWP statutory requirements for preparing an EA under Title 75, Chapter 1, Part 2 Montana Code Annotated (MCA) and FWP rules under ARM 12.6.1520 et seq. The FWP has primary jurisdiction over alternative livestock sites with regard to licensing, reports and record keeping, exterior fencing, removal of game animals, inspection, and enforcement of these functions (87-4-408, MCA).

FWP shares regulatory responsibilities for new and expanding alternative livestock operations with the Montana Department of Livestock (DoL). The DoL is responsible for regulating the health, transportation, and identification of alternative livestock (87-4-408, MCA). Rules for DoL to implement regarding alternative livestock facilities are included in ARM 32.4.101 et seq. During the application process, all quarantine area plans and specifications are submitted to DoL for approval.

PRIOR ENVIRONMENTAL REVIEW AND LICENSE

The existing 38-acre alternative livestock facility (Figure 2) owned and operated by the Tutvedts was subject to an EA completed by FWP in 1997. The EA included an evaluation of potential impacts to the physical environment (land, air, water, vegetation, fish, and wildlife) and human environment (noise, land use, risk/health, community, public service/taxes/utilities, aesthetics/recreation, and cultural/historic resources). A Decision Document was completed by FWP on October 14, 1997 to allow up to 200 elk in the 38-acre enclosure. License no. 132 was granted to Brian, Craig, and David Tutvedt for the 38-acre BCD Land & Livestock alternative livestock facility (previously referred to as "game farm"). One stipulation is included with the Decision Document and license:

1. Licensee must report to FWP the ingress of any game animal or any predators of ungulates (e.g., mountain lion, black bear, grizzly bear or wolf) immediately upon the discovery, and the reason for such ingress.

Key environmental impacts noted in the EA for the 38-acre BCD Land & Livestock alternative livestock operation include the following:

- Spread of a contagious wildlife disease from alternative livestock may reduce the number of wild deer and elk.
- The enclosure may alter local movement of some individual wild deer or transitory elk. Wild deer could enter the enclosure during periods of drifted or otherwise deep snow accumulations.
- Potential for minor impacts to surface water and groundwater quality from elk fecal matter and sediment in the vicinity of the alternative livestock facility, including a wetland area within the enclosure.
- Decreasing forage availability, reduced ground cover, increased soil erosion, and invasion of noxious weeds if intensity of stocking rate is high (i.e., up to 200 elk on 38 acres).

For the 1997 EA, a total of two written comments were received by FWP during the public comment period.

AFFECTED ENVIRONMENT

The proposed Tutvedt expansion of the BCD Land & Livestock alternative livestock facility is located on leased land between Kalispell and Whitefish, Montana. This section summarizes primary environmental resources in the project area.

LAND RESOURCES

The proposed 82-acre alternative livestock expansion site (site) is located at an elevation of about 3000 feet in the Stillwater River drainage. The river is approximately ¾-mile east and north of the proposed enclosure (Figures 1 and 2). Approximately three-quarters of the proposed site is situated on level ground, while the remaining area is a moderately sloping (20 to 30 percent) hillside (Figure 2). General topography of the area was formed by glaciers and subsequent alluvial features produced as the ice melted and retreated. The glacial features include the Lost Creek outwash fan, kettle holes, swales, and hummocky topography characteristic of ground moraine. Soil at the site is primarily sand and silt loam with some clay.

AIR RESOURCE

The proposed alternative livestock site is situated in an agricultural area in the Stillwater River Valley between Kalispell and Whitefish. Scattered residences are located within 1 mile of the proposed enclosure. County roads border the east and south sides of the proposed enclosure. The area has no apparent history of air quality problems, and is not classified for air quality attainment status (Montana DEQ, 1997).

WATER RESOURCES

The Stillwater River, located about ¾-mile east-northeast of the proposed enclosure, is the prominent hydrologic feature in the study area. A former channel of the river located about ¼-mile east of the site contains water year-round from springs and seeps. A spring/seep area and associated pond are located near the north side of the existing 38-acre enclosure; water from this seep drains to the former river channel and Stillwater River. No wetland areas are located within the proposed 82-acre expansion area. Stock water would be supplied to the alternative livestock from an existing well located near the enclosure; this water source is also used for the existing facility.

Direction of groundwater flow in the vicinity of the proposed alternative livestock facility is likely easterly toward the Stillwater River. Depth to unconfined groundwater in unconsolidated alluvial and glacial sediments along the valley bottom in the east side of the proposed enclosure is relatively shallow (10 to 50 feet). Due to shallow clay material, however, the primary water-producing zones are in deeper semi-confined and confined sand and gravel units at depths in excess of 200 feet below ground surface.

Montana's Section 303(d) list shows that the lower section of the Stillwater River adjacent to and downstream of the alternative livestock site (44.1-mile reach of B-2 use classification) is impaired for aquatic life, cold water fisheries, and drinking water. Several water rights are held for groundwater wells and surface water (primarily Stillwater River) within a mile of the proposed alternative livestock facility.

VEGETATION RESOURCES

The 82 acres with the proposed BCD alternative livestock expansion area is irrigated cropland (barley/grass hay). No trees are located along the proposed perimeter fence. Forage production for the proposed expansion area is estimated at 5,000-8,000 pounds per acre due to irrigation; therefore, total forage for the proposed 82-acre enclosure would be in excess of 410,000 pounds (205 tons) on an annual basis. No federally-listed threatened or endangered plant species were observed within the proposed enclosure site. The proposed site does contain noxious weeds (e.g., Canada thistle).

FISH AND WILDLIFE

The BCD alternative livestock site is located near white-tailed deer winter range and just within the edge of elk summer and winter habitat (Figure 3). This area, however, is not considered important wildlife winter range. The Kuhns Wildlife Management Area, located ¾-mile to the northwest, and the Stillwater River, located about ¾-mile to the east-northeast, are important deer winter range (Figure 3). The general area of agricultural land surrounding the proposed enclosure is used by white-tailed deer during other seasons as well. Mule deer use the western portion of the white-tailed deer winter range, and moose frequent areas just west of the proposed enclosure area (Figure 3). These wild animals located outside of the proposed enclosure potentially could be subject to hybridization risk from the alternative livestock. Bald eagles, a federally-listed species, winter along the Stillwater River. Other wildlife species known or expected to use the area, at least on a transient basis, include black bear, mountain lion, coyote, and fox.

NOISE AND ELECTRICAL EFFECT

The existing 38-acre alternative livestock facility is located on the south side of the proposed enclosure. The area surrounding the proposed alternative livestock facility is sparsely populated. A relative of the applicants lives near the north side of the existing facility (Figure 2), and another house is located near the northwest corner of the proposed expansion area. Several other residences are scattered within a mile of the alternative livestock site.

LAND USE/COMMUNITY

Principal land use of the alternative livestock site and vicinity is livestock grazing and irrigated cropland. The proposed operation would be consistent with existing land uses and is surrounded by private residential and farmland. The Stillwater State Forest is located approximately 1 mile northeast and 1½ miles west-northwest of the proposed enclosure (Figure 1). The nearest federally-owned land is National Forest located about 3 miles west of the site (Figure 1). There are several sparsely located residences (other than the one located at the alternative livestock site) located within one mile of the site (Figure 2). County roads extend along the east and south sides of the proposed enclosure (Figures 1 and 2). The proposed alternative livestock facility is located approximately 7 miles northwest of Kalispell and 10 miles southwest of Whitefish.

RISK/HEALTH HAZARDS

Traditional domestic livestock are currently pastured in the vicinity of the property. There are resident populations of elk and deer in the vicinity of the proposed enclosure. These domestic and wild animals located outside of the proposed enclosure potentially could be subject to disease transmission from the alternative livestock. In addition, several residents are sparsely located within a mile of the facility that could be indirectly exposed to health hazards from the proposed alternative livestock facility. In order for disease transmission to occur, the organism causing the disease needs to be present. Any alternative livestock introduced to this facility would be tested for tuberculosis and brucellosis and would be in compliance with DoL disease regulations (monitoring for chronic wasting disease, etc.) prior to movement to the facility.

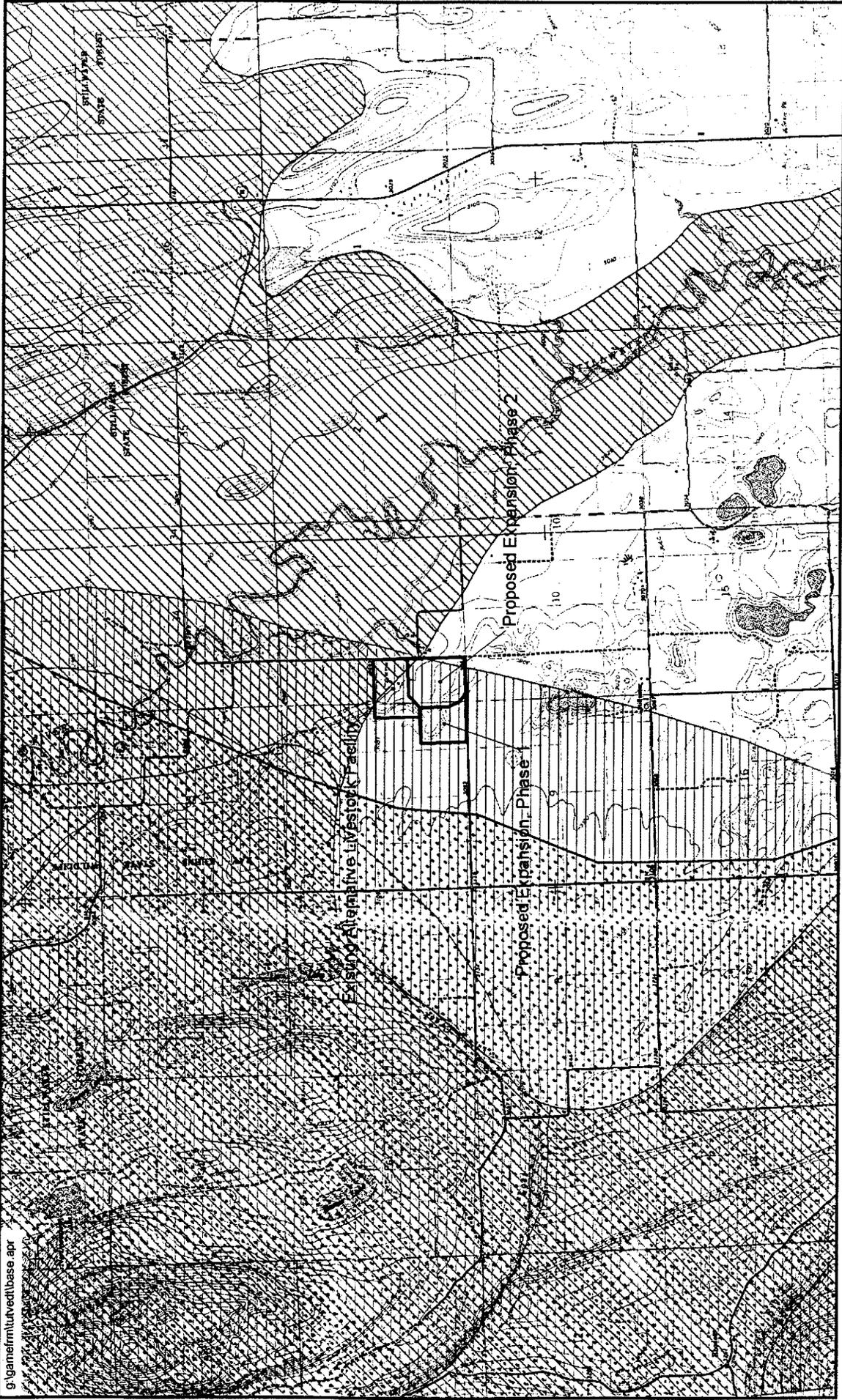
ENVIRONMENTAL CONSEQUENCES

Only primary resources that have potential adverse effects from the Proposed Action are summarized in this section. A detailed discussion of environmental consequences is contained in *Part II* of this EA.

LAND RESOURCES

Environmental impacts to land and soil resources associated with the Proposed Action of expanding the existing alternative livestock facility by 82 acres to accommodate up to 600 elk at full capacity are directly related to the stocking rate. The western portion of the proposed expansion area contains moderately-steep slopes (20 to 30 percent) where the soil, while somewhat resistant to erosion due to a considerable amount of gravel, would erode if an adequate vegetative cover is not maintained. The eastern portion of

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Wildlife Habitat

-  White-tail Deer Winter Range
-  Elk - Summer and Winter Habitat
-  Moose - General and Winter Range
-  Mule Deer - General and Winter Range

Note: Big game data comes from the Montana Fish, Wildlife & Parks 1:100,000 and 1:250,000 Scale map data. Topographic base derived from U.S.G.S. 1:24,000 scale quadrangles.

**Big Game Distribution
Tutvedt - BCD Land and Livestock
Alternative Livestock Facility Expansion
Flathead County, Montana
FIGURE 3**

the proposed expansion is on more gentle slopes where wind erodibility is more of a concern on disturbed areas and areas where vegetative cover could be significantly reduced due to excessive grazing. Maintaining an adequate vegetative cover is integral to reducing potential impacts to soil productivity from erosion. This would be possible using irrigation in conjunction with a proper stocking rate (see CAFO discussion in checklist portion of EA below).

AIR RESOURCES

The presence of up to 600 alternative livestock in the 120-acre enclosure would produce some odors from fecal matter, but is expected to cause only minor odor problems to residences within about a ¼-mile radius of the facility. In general, the area is a sparsely populated, agricultural region.

WATER RESOURCES

Increased runoff and erosion could occur in some areas of the proposed enclosure if pasture use is such that vegetative cover is diminished. The proposal to pasture up to 600 alternative livestock on the site would reduce vegetative cover. Areas of the enclosure that would be most susceptible to erosion problems are on the steeper slopes (20 to 30 percent). The extent to which erosion would occur is dependent primarily on animal density, season, and duration of use. The exterior enclosure fence would not cross any perennial streams or ponds. Any runoff that may occur from the proposed enclosure would enter the ditch along the county road on the east side of the fenceline.

Alternative livestock fecal matter and nutrient-enriched water may have a minor effect on the quality of groundwater in the vicinity of the alternative livestock site (dependent upon animal density and waste management practices), primarily during periods of snow-melt and major precipitation events when recharge to the subsurface system would occur.

VEGETATION RESOURCES

The occupancy period for alternative livestock would be on a year-long basis. The proposed site would supply an estimated 30 to 40 percent of forage needs when fully stocked with 600 animals. The maximum stocking rate of approximately 5 animals per acre is considered high and would contribute to the long-term decline of vegetation resources on the site, both in terms of plant species composition and productivity. Use of irrigation, however, would minimize impacts to vegetation. Supplemental feed (hay/grain) would be needed to sustain the animals during the non-growing season and some feed should be provided during the growing season to help reduce animal use of vegetation and to reduce potential impacts on ground cover. There are no native plants, including threatened or endangered plant species in this area.

Noxious weed spread is possible at this site and, under an intensive grazing regime, with no weed management, would be expected to invade and subsequently increase in abundance. Weeds would spread quickly to disturbed areas around any site that animals are fed or handled. Weed seeds could be imported into the area with animal feed. If BMPs are properly implemented and a reasonable stocking rate is maintained, impacts to vegetation would be minor.

WILDLIFE RESOURCES

The exclusion of wild game from 82 additional acres would displace a few resident deer and possibly elk from habitat in the drainage. Game moving through the area would be forced to travel a minimal distance to get to the same point(s) along the travel routes. Mountain lions, bears, and wolves would occasionally pass through this area and may be attracted to the alternative livestock.

A concern regards the escape of captive elk and the potential for interbreeding of wild elk with domestic elk whose genetic make-up has been altered through several generations of selective breeding or through interbreeding with domestic red-deer. Although red deer are now prohibited species in Montana, historically some alternative livestock operators did bring red-deer or red-deer hybrids into their facilities. The concern regarding red deer hybrids is partially mitigated through current regulations. Although the impact of genetic

pollution on wild elk herds is unknown, the effect is undesirable in terms of maintaining the genetic integrity of existing populations. The risk of hybridization would be minimal if fence integrity is maintained and the stipulations and/or mitigation measures described in this EA are followed.

NOISE AND ELECTRICAL EFFECT

Minor increases to existing noise levels are expected as a result of constructing the fence and from bull elk bugling during the mating season. Fence construction would be short-term. The magnitude of bugling noise would be dependent on the number of bull elk in the enclosure during the mating season.

LAND USE/COMMUNITY

The proposed expansion would be compatible with existing agricultural land uses. The alternative livestock facility would maintain the 82-acre expansion area as forage cropland. With respect to land use, no significant conflicts should result between operation of the ranch and the agricultural or residential areas. Additional homes could be constructed in the vicinity of the facility on private land. Potential effects of the alternative livestock facility on adjacent property values is difficult to evaluate because some nearby property owners may like the idea of the expansion, whereas others might find it undesirable.

Some local residents may feel the alternative livestock operation would decrease their quality of life. Neighbors harboring negative feelings about the operation would perceive a loss in their sense of social well-being. However, some neighbors and local residents may like the idea of an alternative livestock facility and enjoy viewing the elk. These people may feel the facility would add to their quality of life.

RISK/HEALTH HAZARDS

There is potential for transmission of water-borne disease pathogens, if present, to be transported into and out of the ranch, primarily from the ephemeral drainage on the north side of the alternative livestock site. This is expected to be a minor risk because of current animal disease testing requirements and lack of surface water flow from the site, except during conditions of significant precipitation events and snowmelt (spring runoff). The route of chronic wasting disease (CWD) transmission at this time is unknown; therefore, the potential for transmission by soil, water, or other media cannot be determined, nor impacts disclosed.

The risk of disease (e.g., brucellosis and tuberculosis) being passed from alternative livestock to wildlife and traditional livestock would be minimal if fence integrity is maintained and the stipulations and/or mitigation measures described in this EA are followed. Potential for disease transmission from ranch animals is also mitigated through DoL disease testing requirements. Each facility is required to have access to an isolation pen (quarantine facility) on the property or an approved quarantine plan to isolate any animals that are imported or become ill. Snow drift-prone areas along portions of the perimeter fence of the proposed enclosure have the potential to affect fence integrity. There is some risk of infection to hunters who field dress deer or elk infected with tuberculosis or brucellosis. Routine brucellosis and tuberculosis testing requirements for alternative livestock offer a measure of surveillance that minimizes that risk.

CUMULATIVE EFFECTS

The Proposed Action would add to impacts associated with the existing alternative livestock facility (license no. 132) located adjacent to the proposed facility (Figure 2). The existing operation is licensed for up to 200 elk on 38 acres. This facility, in combination with the proposed alternative livestock operation, could result in up to 600 alternative livestock (elk) on 120 acres in the Stillwater River Valley. The Spoklie Tobie Creek alternative livestock facility is located approximately 10 miles northwest of the BCD Land & Livestock site. The Proposed Action would result in potential impacts that are individually minor, but not cumulatively significant.

EA CONCLUSION

MEPA and alternative livestock licensing statutes require FWP to conduct an environmental analysis for proposed alternative livestock operations as described in the *Introduction* of this *Summary* section (p. 1). FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines that a project would have a significant impact that could not be mitigated to less than significant, then FWP would prepare a more detailed EIS before making a decision.

Based on the criteria evaluated in this EA, an EIS would not be required for the proposed expansion of Tutvedt's BCD Land & Livestock alternative livestock facility. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the Proposed Action have been accurately identified in the EA, and all identified significant impacts, if any, would be mitigated to minor or none.

STIPULATIONS AND MITIGATION MEASURES

The stipulation(s) and mitigation measures described in this section address potential impacts identified for the proposed expansion of Tutvedt's BCD Land & Livestock alternative livestock operation. Potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended to remain in compliance with state and federal environmental laws, but are not required.

REQUIRED STIPULATIONS

One stipulation is listed on page 5 of this EA that is part of license no. 132 for the existing 38-acre alternative livestock facility. This stipulation regarding the reporting of ingress immediately to FWP would no longer be needed for the proposed expansion because it is addressed in current regulations.

One stipulation would be imposed for the proposed expansion of the Tutvedt BCD alternative livestock facility regarding maintaining the perimeter fence in game-proof condition. This stipulation would apply to the existing 38-acre enclosure, as well as the proposed 82-acre enclosure.

1. If ingress or egress becomes a problem due to excessive snow accumulation or differential slope heights along the perimeter fence, fence height shall be increased in the identified problem areas.

The stipulation listed above is imposed to mitigate a potentially significant risk from potential ingress/egress of alternative livestock and wildlife due to fence height concerns from hillsides and potential snow accumulation. Some moderately-steep (20 to 30 percent) slopes exist in the northeast and south-central portions of the proposed enclosure. Typically, winter snow depths in this area can reach several feet, but usually are 1 to 2 feet at any given time. Blowing and drifting snow can also increase packed snow depths. Without the requirements specified in the stipulation, risk to livestock and wildlife from contact with alternative livestock would have the potential to be significant, due to the site being located in an area currently utilized by wild game and predators.

RECOMMENDED MITIGATION MEASURES

The following recommended mitigation measures address minor impacts identified in this EA for the proposed expansion of the BCD Land & Livestock alternative livestock facility for resources that have the potential to be affected by the Proposed Action:

Land Resources

- Maintain a reasonable stocking rate within the enclosure to minimize changes in soil structure and potential increases in runoff and erosion to surface water drainages from disturbed ground. A "reasonable stocking rate" could include internal fencing and rotational grazing strategies that limit periods of time that alternative livestock would be using any one pasture in order to reduce potential for devegetation and erosion.

Air Resources

- Employ one or more of the following best management practices (BMPs) to reduce odor problems if they occur: quickly incorporate accumulated waste into soil by plowing or disking as appropriate; spread waste during cool weather or in the morning during warm, dry weather; properly dispose of animal carcasses according to county solid waste regulations; carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads, or ditches; and, reduce stocking rate of alternative livestock.

Water Resources

- Maintain a reasonable stocking rate in the area to mitigate potential impacts from runoff and fecal matter. Potential water quality impacts also could be minimized by disposing of dead animals and excess fecal material at a site that is isolated from surface water and groundwater (disposal must meet county regulations for solid waste if applicable). On-site disposal of dead alternative livestock would be regulated by DoL under ARM 32.4.1002.
- For any areas that may have erosion and sedimentation problems, utilize best management practices (BMPs) where surface water could enter the Stillwater River. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences to be used on a seasonal basis.

Vegetation Resources

- Monitor the alternative livestock site for invasion of noxious weeds and treat affected areas in a timely manner. Should noxious weeds continue to be detected, a weed control program should be implemented, if not already in place, to control the weeds.
- Provide certified weed-free supplemental feed and minerals to the alternative livestock on a seasonal basis to reduce excessive grazing on preferred pasture plants.
- Create/utilize interior pastures such that rotational grazing strategies can be implemented to reduce the potential for adverse impacts to vegetation.

Fish and Wildlife

- Store feed away from exterior fences or enclose in bear-resistant containers or buildings.
- Feed alternative livestock at interior portions of the enclosure and not along the perimeter fence.

Noise and Electrical Effects

- If excess noise from bugling during the rut results in substantial complaints, reduce the number of bull elk and/or confine bulls to portions of the enclosure that are farthest from the nearest residential areas.

Risk/Health Hazards

- Mitigation measures recommended above for *Water Resources* and *Wildlife Resources* are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among alternative livestock can be minimized by maintaining a reasonable stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to alternative livestock.

Cultural & Historical Resources

- If archeological artifacts are observed during construction of the enclosure fence or from other activities, work should stop in the area and the discovery reported to the Montana Historical Society in Helena. If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs and preserve the artifact(s).

PART I. ALTERNATIVE LIVESTOCK OPERATION LICENSE APPLICATION

Montana Fish, Wildlife & Park's authority to regulate alternative livestock operations is contained in sections

ENVIRONMENTAL ASSESSMENT CHECKLIST

87-4-406 through 87-4-424, MCA and ARM 12.6.1501 through 12.6.1519.

1. **Name of Project:** Expansion of Tutvedt's BCD Land & Livestock Alternative Livestock Operation

Date of Acceptance of Completed Application: May 16, 2000

2. **Name, Address and Phone Number of Applicant(s):**

Brian Tutvedt
1145 Church Drive
Kalispell, MT 59901
Phone: 406-755-1959

Craig Tutvedt
2686 W. Valley Drive
Kalispell, MT 59901
phone: 406-755-5653

David Tutvedt
1141 Church Drive
Kalispell, MT 59901
phone: 406-257-4645

3. **If Applicable:**

Estimated Construction/Commencement Date: Fall of 2000

Estimated Completion Date: Fall of 2003

Is this an application for expansion of existing facility or is a future expansion contemplated?

Yes, expansion of existing 38-acre facility.

4. **Location Affected by Proposed Action (county, range and township):**

Flathead County, 82 acres in the following:
SW¼ of Section 3 and SE¼ of Section 4; Township 29 North, Range 22 West

5. **Project Size:** Estimate number of acres that would be directly affected that are currently:

(a) Developed:	(d) Floodplain..._____ acres
residential....._____ acres	(e) Productive:
industrial....._____ acres	irrigated cropland.. <u>82</u> acres
(b) Open Space/Woodlands/Areas...._____ acres	dry cropland....._____ acres
(c) Wetlands/Riparian Areas....._____ acres	forestry....._____ acres
	rangeland....._____ acres
	other....._____ acres

6. Map/site plan:

The following maps are included in the introductory summary of this EA:

- Figure 1:** Site Map
- Figure 2:** Land Use / Land Cover
- Figure 3:** Big Game Distribution

7. Narrative Summary of the Proposed Action or Project including the Benefits and Purpose of the Proposed Action:

FWP received an initial application dated April 14, 2000 from Brian, Craig, and David Tutvedt to expand their alternative livestock facility in Flathead County, Montana. FWP received the application on April 18, 2000, and accepted the application as complete in a letter to the Tutvedts dated May 16, 2000. The proposed expansion to the BCD Land & Livestock alternative livestock facility is located between the towns of Kalispell and Whitefish, Montana (approximately 7 miles northwest of Kalispell and 10 miles southwest of Whitefish) (Figure 1). Relatives of the applicants live adjacent to the proposed expansion site (Figure 2).

The proposed expansion site is located immediately south of the existing licensed alternative livestock facility (license no. 132) (Figure 2). The proposed alternative livestock facility is located in the SW¼ of Section 3 and SE¼ of Section 4, Township 29 North (T29N), Range 22 West (R22W) and would add 82 acres to the existing 38-acre facility. The existing facility is licensed for up to 200 elk in the same sections listed above. An EA and Decision Document were prepared by FWP in 1997 for the 38-acre alternative livestock facility.

The applicants propose that up to 600 alternative livestock (elk) be allowed in the 120-acre enclosure (proposed 82-acre enclosure and existing 38-acre facility) on a year-round basis. The expansion is proposed to be completed in two phases: Phase 1 = 34 acres, and Phase 2 = 48 acres, both of which are expected to be completed by the fall of 2003.

Purposes of the proposed alternative livestock facility include: breeding stock, meat production, and antler production. Alternative livestock to occupy the expanded facility would be procured from licensed facilities; however, none have been identified at this time. Wild animals would be removed from the enclosure prior to licensing by FWP.

Fence construction would be completed in accordance with requirements of FWP under ARM 12.6.1531. Fencing would consist of 8-foot high, high-tensile, Tigtlock steel wire fencing on steel posts. The fence bottoms would be installed to provide not more than 3 inches of ground clearance.

Five exterior gates would be constructed for the proposed expansion fence (Phases 1 and 2; Figure 2). A handling and quarantine facility located in the existing 38-acre alternative livestock facility (Figure 2) would be used for the proposed new facility. Water for the proposed expansion would come from a well that also supplies water for the existing facility.

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Approval Date and Number</u>
Department of Livestock	Approval of quarantine and handling facility	Using quarantine facility in nearby facility (license no. 132)

(b) Funding:

Agency Name _____ Funding Amount

None

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
- Montana Department of Livestock (DoL)	disease control
- Montana Department of Environmental Quality (DEQ)	water quality, air quality waste management
- Montana State Historical Preservation Office (SHPO)	cultural resources
- Montana Department of Natural Resources and Conservation (DNRC)	water rights; floodplain development
- Natural Resource Conservation Service (NRCS)	soil conservation
- Flathead County Conservation District	stream crossings
- Flathead County Weed Control District	weed control
- Flathead County Tax Department	tax assessment

9. List of Agencies Consulted During Preparation of the EA:

Montana Department of Livestock
Montana Department of Environmental Quality
Montana State Historical Preservation Office
Montana Department of Natural Resources and Conservation

REFERENCES:

Tutvedt, Brian, Craig, & David. 2000. Application for Expansion of BCD Land & Livestock Alternative Livestock Operation, dated April 14, 2000.

PART II. ENVIRONMENTAL REVIEW

This section of the EA presents results of an environmental review of the proposed expansion of Tutvedt's BCD Land & Livestock alternative livestock operation (Proposed Action). The assessment evaluated direct and indirect impacts and cumulative effects of the Proposed Action on the following resources of the physical environment: land, air, water, vegetation, fish and wildlife; and the following concerns of the human environment: noise, land use, human health risk, community impacts, public services and taxes, aesthetics and recreation, and cultural and historical resources. Impacts were determined to fall in one of four categories: unknown, none, minor and significant. For the purposes of this EA, and in accordance with ARM 12.6.1525, these terms are defined as follows:

EA DEFINITIONS

Cumulative Effects: Collective impacts on the physical and human environment of the Proposed Action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impacts statement evaluation, or permit processing procedures.

Unknown Impacts: Information is not available to facilitate a reasonable prediction of potential impacts.

Significant Impacts: A determination of significance of an impact in this EA is based on individual and cumulative impacts from the Proposed Action. If the Proposed Action results in significant impacts that can not be effectively mitigated, FWP must prepare an EIS. The following criteria are considered in determining the significance of each impact on the quality of the human environment:

- severity, duration, geographic extent and frequency of occurrence of the impact;
- probability that the impact would occur if the Proposed Action occurs;
- growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative effects;
- quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- importance to the state and to society of each environmental resource or value that would be affected;
- any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions with significant impacts or a decision in principle about such future actions; and
- potential conflict with local, state, or federal laws, requirements, or formal plans.

Reasonable Stocking Rate: The density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt. Factors to consider in determining an overall reasonable stocking rate include vegetation type and density, ground slope, soil type, and precipitation.

A. PHYSICAL ENVIRONMENT

1. <u>LAND RESOURCES</u> Will Proposed Action result in:	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Soil instability or changes in geologic substructure?		X				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?			X		Yes	1(b)
c. Destruction, covering or modification of any unique geologic or physical features?		X				
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?		X				

AFFECTED ENVIRONMENT:

The proposed expansion to the BCD Land & Livestock alternative livestock facility is located approximately 7 miles northwest of Kalispell, Montana in Flathead County. The proposed 82-acre expansion occupies low (0 to 10 percent) to moderately-steep (20 to 30 percent) northeast-facing slopes at an elevation of about 3000 feet above mean sea level. Approximately ¼-mile east-northeast of the site lies the Stillwater River, a major tributary to the Flathead River. A former channel of the river is situated approximately ½-mile east of the proposed expansion on the floodplain of the Stillwater River. This former river channel collects spring and seep water from the Lost Creek outwash fan, a fan-shaped deposit originated from the mouth of Lost Creek canyon, approximately 2 miles west of the site. Current land use of the expansion area is irrigated cropland.

General topography of the area is dominated by glacial features resulting from the late Wisconsin-age Cordilleran ice sheet which covered the land surfaces of northwest Montana to an elevation of 5100 feet (Johns, 1970), and subsequent alluvial features produced as the ice melted and retreated. Glaciofluvial features include the Lost Creek outwash fan, kettle holes, swales, and the hummocky topography characteristic of ground moraines. The expansion to the alternative livestock facility is situated on slopes of the glaciofluvial fan, which is composed of a mixture of glacial till and fluvially deposited sand.

Soil units on the expansion area are composed of Yeoman soils, and an association of Tally, Blanchard, and Flathead soils (USDA, 1960). The northeast corner of the proposed expansion area is occupied by soils on 0 to 3 percent slopes classified as Flathead Loam.

Yeoman soils occupy approximately 50 percent of the proposed expansion, primarily within the west portion of the site (Phase I enclosure) on moderately steep slopes. These soils have developed largely on glacial till and consist of deep, medium-textured soils that are well drained and moderately permeable. The Yeoman loam occupies the southwest corner of the expansion area on 3 to 7 percent slopes. The Yeoman gravelly loam is found on 3 to 20 percent slopes in the northwest portion of the expansion area. This soil has more gravel in the surface soil and a few larger stones. A gravelly sand is found in the subsurface at about 12 to 24 inches, which makes the soil somewhat droughty due to low moisture holding capacity in the subsurface.

Tally, Blanchard and Flathead soils occupy approximately 45 percent of the expansion area, primarily within the east portion or proposed Phase II enclosure on 3 to 12 percent slopes. This soil association occurs in irregular patterns on hummocky surfaces, but is generally fine-sandy loam and loamy sand. Permeability is moderately rapid. These soils may be excessively drained. Tally, Blanchard, and Flathead soils are highly erodible by wind (USDA, unpublished data).

The Kalispell series consists of deep, medium-textured well-drained soils that have developed on outwash fans and glacial lake and stream terraces. Slight wind erosion is evident on nearly all of this soil. In some areas, nearly all of the dark surface soil has been drifted into hummocks. Some sand has been blown onto this soil from adjoining very sandy soil.

PROPOSED ACTION:

1(b) – Environmental impacts to land and soil resources associated with the Proposed Action of expanding the existing alternative livestock facility by 82 acres to accommodate up to 600 elk at full capacity are directly related to the stocking rate. The western portion of the proposed expansion area contains moderately-steep slopes (20 to 30 percent) where the soil, while somewhat resistant to erosion due to a considerable amount of gravel, would erode if an adequate vegetative cover is not maintained. The eastern portion of the proposed expansion is on more gentle slopes (0 to 10 percent) where wind erodibility is more of a concern on disturbed areas and areas where vegetative cover is significantly reduced due to excessive grazing. Maintaining an adequate vegetative cover is integral to reducing potential impacts to soil productivity from erosion. This would be possible using irrigation in conjunction with a proper stocking rate.

NO ACTION:

Under the No Action alternative, the current condition of the property would not change relative to use by alternative livestock and no related impacts to soil and land resources are expected beyond those impacts due to current grazing and farming practices.

CUMULATIVE EFFECTS:

The Proposed Action would expand the existing 38-acre alternative livestock facility by an additional 82 acres, with up to 600 elk in the total enclosure area at full capacity. As a result, cumulative impacts to land/soil resources could develop if the maximum stocking rate is attained; however, the magnitude of these effects is expected to be minor to moderate on a cumulative basis, primarily due to irrigation of the area.

COMMENTS:

There is a moderate to high risk of corrosion to uncoated steel and concrete in many of the soil units located within the proposed expansion area. This characteristic should be considered when designing the exterior fence.

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

Maintain a reasonable stocking rate within the enclosure to minimize changes in soil structure and potential increases in runoff and water and wind erosion from disturbed ground. A "reasonable stocking rate" could include rotational grazing strategies that limit periods of time that alternative livestock would be using any one pasture in order to reduce potential for devegetation and erosion.

REFERENCES:

Johns, Willis M., 1970. Geology and Mineral Deposits of Lincoln and Flathead Counties, Montana. Montana Bureau of Mines and Geology, Butte, Montana. Bulletin 79,. 182 pages with maps.

U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), 1960. Soil Survey of the Upper Flathead Valley Area, Montana. USDA SCS in cooperation with Montana Agriculture Experiment Station. USDA Washington, D.S. Series 1946 No. 4, 67 pages with plates.

USDA, Natural Resources Conservation Service (NRCS). Unpublished Soil Survey Data provided by Gregory Snell, Soil Scientist Specialist, Kalispell, Montana field office, July 28, 1997.

2. <u>AIR RESOURCES</u> Will Proposed Action result in:	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Emission of air pollutants or deterioration of ambient air quality? (also see 13 (c))		X				
b. Creation of objectionable odors?			X		Yes	2(b)
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?		X				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		X				

AFFECTED ENVIRONMENT:

The proposed alternative livestock site is situated in an agricultural area in the Stillwater River Valley between Kalispell and Whitefish. Scattered residences are located within 1 mile of the proposed enclosure. County roads border the east and south sides of the proposed enclosure (Figures 1 and 2). The area has no apparent history of air quality problems, and is not classified for air quality attainment status (Montana DEQ, 1997).

PROPOSED ACTION:

2(b) – The presence of up to 600 alternative livestock in the 120-acre enclosure would produce some odors from fecal matter, but is expected to cause only minor odor problems to residences within about a ¼-mile radius of the facility. In general, the area is a sparsely populated, agricultural region.

NO ACTION:

The current level of minor odors in the area from the existing 38-acre alternative livestock facility and other agricultural activities would remain the same under the No Action alternative.

CUMULATIVE EFFECTS:

As a result of the adjacent existing 38-acre alternative livestock facility, cumulative odors could develop if the maximum stocking rate is attained; however, the magnitude of these effects would likely be minor.

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

Employ one or more of the following best management practices (BMPs) to reduce odor problems if they occur:

- Quickly incorporate accumulated waste into soil by plowing or disking as appropriate;
- Spread waste during cool weather or in the morning during warm, dry weather;
- Properly dispose of animal carcasses according to county solid waste regulations; carcasses and fecal matter should not be disposed of in or adjacent to water bodies, roads, or ditches; and
- Reduce stocking rate of alternative livestock.

These and other BMPs are described in "Guide to Animal Waste Management and Water Quality Protection in Montana" (MDEQ 1996).

REFERENCES:

Montana Department of Environmental Quality (DEQ). 1997. Montana Air Quality Non-Attainment Areas. Revised January 1997.

Montana DEQ, 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

3. WATER RESOURCES Will Proposed Action result in:	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?			X		Yes	3(a)
b. Changes in drainage patterns or the rate and amount of surface runoff?			X		Yes	3(b)
c. Alteration of the course or magnitude of floodwater or other flows?		X				
d. Changes in the amount of surface water in any water body or creation of a new water body?		X				
e. Exposure of people or property to water related hazards such as flooding?		X				
f. Changes in the quality of groundwater?			X		Yes	3(f)
g. Changes in the quantity of groundwater?		X				
h. Increase in risk of contamination of surface or groundwater?		X				
i. Effects on any existing water right or reservation?		X				
j. Effects on other water users as a result of any alteration in surface or groundwater quality?		X				
k. Effects on other users as a result of any alteration in surface or groundwater quantity?		X				

AFFECTED ENVIRONMENT:

The Stillwater River, located about ¼-mile east-northeast of the proposed enclosure, is the prominent hydrologic feature in the study area. Average annual precipitation at Whitefish for the period 1948 to 2000 is 22.6 inches, and average total snowfall is 74 inches/year (Western Regional Climate Center, 2000). A former channel of the river located about ¼-mile east of the site contains water year-round from springs and seeps. A spring/seep area and associated pond are located near the north side of the the existing 38-acre enclosure; water from this seep drains to the former river channel and Stillwater River. No wetland areas are located within the proposed 82-acre expansion area. Stock water would be supplied to the alternative livestock from an existing well located near the enclosure; this water source is also used for the existing facility.

General geologic and hydrologic conditions in the region are described by Johns (1970) and Spratt & Associates (1991). Direction of groundwater flow in the vicinity of the proposed alternative livestock facility is

likely easterly toward the Stillwater River. Depth to unconfined groundwater in unconsolidated alluvial and glacial sediments along the valley bottom in the east side of the proposed enclosure is relatively shallow (10 to 50 feet). Due to shallow clay material, however, the primary water-producing zones are in deeper semi-confined and confined sand and gravel units. Well records on-file with the DNRC and Montana Bureau of Mines and Geology (MBMG, 2000) indicate that most wells in the area are completed in principal water-bearing zones (sand and gravel) in excess of 200 feet below ground surface. One well reportedly encountered bedrock at a depth of nearly 600 feet below ground surface (MBMG, 2000). Approximately six private water wells are located west-northwest (i.e., downgradient) of the proposed alternative livestock facility.

Montana's Section 303(d) list shows that the lower section of the Stillwater River adjacent to and downstream of the alternative livestock site (44.1-mile reach of B-2 use classification) is impaired for aquatic life, cold water fisheries, and drinking water. Several water rights are held for groundwater wells and surface water (primarily Stillwater River) within a mile of the proposed alternative livestock facility (Montana Department of Natural Resources and Conservation (DNRC), 2000).

PROPOSED ACTION:

3(a) & 3(b) – Increased runoff and erosion could occur in some areas of the proposed enclosure if pasture use is such that vegetative cover is diminished. The proposal to pasture up to 600 alternative livestock on the site would reduce vegetative cover. Areas of the enclosure that would be most susceptible to erosion problems are on the steeper slopes. The extent to which erosion would occur is dependent primarily on animal density, season, and duration of use. The exterior enclosure fence would not cross any perennial streams or ponds. Any runoff that may occur from the proposed enclosure would enter the ditch along the county road on the east side of the fenceline.

If vegetative cover is reduced significantly, the operation could meet the definition of an "animal feeding operation" (ARM 17.30.1304(3)). If water containment structures are needed on the project site to control runoff and do not have the capacity for the 25-year, 24-hour storm, a "concentrated animal feeding operations" (CAFO) permit must be obtained from Montana DEQ to permit the discharge. The alternative livestock fence would not cross any perennial drainages or wetlands.

3(f) – Alternative livestock fecal matter and nutrient-enriched water may have a minor effect on the quality of water in the vicinity of the alternative livestock site (dependent upon animal density and waste management practices), primarily during periods of snow-melt and major precipitation events when recharge to the subsurface system would occur. Groundwater impacts would be minimal due to the low-permeable clayey glacial deposits and confined or semi-confined conditions. On-site disposal of dead alternative livestock would be regulated by DoL under ARM 32.4.1002. Potential transport of pathogens from the proposed enclosure into surface water is discussed in the following *Risk/Health Hazards* section (section no. 8).

NO ACTION:

Current hydrologic conditions are not expected to change under the No Action alternative; alternative livestock would continue to graze in the existing 38-acre alternative livestock facility if the proposed expansion is not approved and completed.

CUMULATIVE EFFECTS:

The existing alternative livestock facility, in combination with the proposed expansion, could result in up to 600 alternative livestock on 120 acres. As a result, cumulative impacts to water resources would develop if the maximum stocking rate were attained; however, the magnitude of these effects would likely be minor on a cumulative basis.

COMMENTS:

Due to potential minor impacts identified above from increased runoff and fecal matter, several mitigation measures are recommended. Other water quality protection practices may be required by the Montana DEQ if it is determined that a CAFO permit is necessary or if significant water quality problems develop. Refer to "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ, 1996) and "Common Sense and Water Quality, A Handbook for Livestock Producers" (Montana Department of Health and Environmental Sciences, 1994) for further information on mitigation measures and CAFO permits. The following management practices are recommended to minimize the risk of discharging pollutants to state water:

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

- Maintain a reasonable stocking rate in the area to mitigate potential impacts from runoff and fecal matter. Potential water quality impacts also could be minimized by disposing of dead animals and excess fecal material at a site that is isolated from surface water and groundwater (disposal must meet county regulations for solid waste, if applicable). On-site disposal of dead alternative livestock would be regulated by DoL under ARM 32.4.1002.
- For any areas that may have erosion and sedimentation problems, utilize best management practices (BMPs) where surface water could enter the Stillwater River. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences to be used on a seasonal basis.

REFERENCES:

- Johns, Willis M. 1970. Geology and Mineral Deposits of Lincoln and Flathead Counties, Montana. Montana Bureau of Mines and Geology, Butte, Montana, Bulletin 79. 182 pages with maps.
- Montana Bureau of Mines and Geology (MBMG), 2000. Groundwater Information Center Report for Wells in Sections 3 & 4 (T29N, R22W). Obtained on-line from Internet. July 2000.
- Montana Department of Environmental Quality (DEQ), 2000. Draft Montana 303D List, A Compilation of Impaired and Threatened Waters in Need of Restoration. April 2000.
- Montana DEQ, 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.
- Montana Department of Health and Environmental Sciences (DHES), 1994. Common Sense and Water Quality, A Handbook for Livestock Producers. Water Quality Division. Helena, MT.
- Montana Department of Natural Resources and Conservation (DNRC), 2000. Computer File Search of Water Rights. Obtained on-line from Internet. July 2000.
- Spratt & Associates, 1991. Groundwater Quality 1964-1990 in Principal Aquifers, Flathead County, Montana. Vol. I, Final Report, Vol. II Appendices. Flathead Conservation District, Kalispell, Montana.
- Western Regional Climate Center, 2000. Monthly Climate Summary for Whitefish, Montana (248902), Period of Record: 7/1/1948 to 4/30/2000. Obtained on-line from Internet. July 2000.

4. <u>VEGETATION</u> Will Proposed Action result in:	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?			X		Yes	4(a)
b. Alteration of a plant community?		X				
c. Adverse effects on any unique, rare, threatened, or endangered species?		X				
d. Reduction in acreage or productivity of any agricultural land?		X				
e. Establishment or spread of noxious weeds?			X		Yes	4(e)

AFFECTED ENVIRONMENT:

The 82 acres with the proposed BCD alternative livestock expansion area is irrigated cropland (hay/barley). No trees are located along the proposed perimeter fence. Forage production for the proposed expansion area is estimated at 5,000 to 8,000 pounds per acre due to irrigation; therefore, total forage for the proposed 82-acre enclosure would be in excess of 410,000 pounds (205 tons) on an annual basis. For the combined total area of 120 acres, total annual forage is between 600,000 and 960,000 pounds (300 to 480 tons). No federally-listed threatened or endangered plant species were observed within the proposed enclosure site. The proposed site does contain noxious weeds (e.g., Canada thistle).

PROPOSED ACTION:

4(a) – The Proposed Action would result in up to 600 alternative livestock (elk) on 120 acres for year-round occupation (38 acres existing and 82 acres proposed). Forage consumption over a 1-year period for 600 adult elk would be approximately 1,971,000 pounds (985 tons). Thus, the 120-acre alternative livestock site would supply about 30 to 40 percent of forage needs for the alternative livestock when fully stocked. This stocking rate of about five animals per acre is considered high and would contribute to the long-term decline of vegetation resources on the site, both in terms of plant species composition and productivity. No native plants, however, are present at the site. Use of irrigation, however, would reduce impacts to vegetation.

4(e) – Noxious weeds (Canada thistle) were apparent at this site and, under an intensive grazing regime, these weeds would be expected to increase in abundance. Weeds could spread quickly to disturbed areas around any site that alternative livestock are fed or handled. Weed seeds could also potentially be imported into the area with elk feed.

NO ACTION:

Current vegetative communities are not expected to change appreciably for the No Action alternative.

CUMULATIVE EFFECTS:

As a result of the nearby 38-acre alternative livestock operation, cumulative impacts to vegetation could develop if the maximum stocking rate is attained; however, the magnitude of these effects is expected to be minor on a cumulative basis.

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

- Monitor the proposed alternative livestock site for invasion of noxious weeds and treat affected areas in a timely manner. Should noxious weeds continue to be detected, a weed control program should be implemented, if not already in place, to control weeds.
- Provide certified weed-free supplemental feed and minerals to the alternative livestock on a seasonal basis to reduce excessive grazing on preferred pasture plants.
- Create/utilize interior pastures such that rotational grazing strategies can be implemented to reduce adverse impacts to vegetation.

5. FISH & WILDLIFE	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will Proposed Action result in:						
a. Deterioration of critical fish or wildlife habitat?			X		No	5(a)
b. Changes in the diversity or abundance of game animals or bird species?			X		Yes	5(b)
c. Changes in the diversity or abundance of nongame species?		X				
d. Introduction of new species into an area?		X				
e. Creation of a barrier to the migration or movement of animals?			X		No	5(e)
f. Adverse effects on any unique, rare, threatened, or endangered species?		X				
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?			X		Yes	5(g)

AFFECTED ENVIRONMENT:

The BCD alternative livestock site is located near white-tailed deer winter range and just within the edge of elk summer and winter habitat (Figure 3). This area, however, is not considered important wildlife winter range (FWP, 1997). The Kuhns Wildlife Management Area, located ¾-mile to the northwest, and the Stillwater River, located about ¼-mile to the east-northeast, are important deer winter range (Figure 3). The general area of agricultural land surrounding the proposed enclosure is used by white-tailed deer during other seasons as well. Mule deer use the western portion of the white-tailed deer winter range, and moose frequent areas just west of the proposed enclosure area (Figure 3). Bald eagles, a federally-listed species, winter along the Stillwater River. Other wildlife species known or expected to use the area, at least on a transient basis, include black bear, mountain lion, coyote, and fox. The Stillwater River is a trout fishery in the vicinity of the proposed alternative livestock operation.

PROPOSED ACTION:

5(a) – The proposed alternative livestock expansion site is located near white-tailed deer winter range, and is located in or near habitat for elk, moose, and mule deer. The exclusion of wild deer from 82 acres would displace a few resident deer from habitat near the Stillwater River. Game moving through the area would be forced to travel a minimal distance to get to the same point(s) along the travel routes. Mountain lions, bears, and wolves may occasionally pass through this area and may be attracted to the alternative livestock.

The proposed alternative livestock operation could increase the amount of sediment and nutrients to drainages that go to the Stillwater River; however, normal surface runoff would be contained in the immediate area of the enclosure. As a result, the magnitude of these impacts is expected to be minor.

5(b) – The exclusion of wild deer from 82 acres would displace a few resident deer from habitat near the Stillwater River. The proposed and existing adjacent alternative livestock enclosures have the potential to

disrupt normal movement and increase deer mortality during severe winters. These two factors may influence the diversity and abundance of big game species in this area to a minor degree.

There is a possibility that wild deer or elk could enter the proposed facility, especially during periods of deep snow accumulation or drifting in winter. The proposed enclosure fence crosses some moderately-steep slopes (20 to 30 percent), and snow drifting can reduce effective fence height in winter. Deer may also be able to crawl under game-proof fencing at sites dug by coyotes, though this is not considered likely under normal circumstances. Wild elk and/or deer may be attracted to the alternative livestock and may try to enter the facility, especially during the mating season. Wild deer or elk entering the proposed facility would likely be destroyed rather than released back to the wild to reduce any chance of disease transmission to wild herds. The licensee may request FWP to conduct disease testing, at the licensee's expense, of the ingressed animals to assure no disease exposure has occurred.

Mountain lions, wolves, bears, and coyotes could potentially pass through this area and may be attracted to the alternative livestock. Should a predator enter the enclosure, live capture and removal of the trespassing animal may be possible; however, this is not without risks to the animal. Predators that enter the enclosure and kill alternative livestock probably would be destroyed.

A concern regards the escape of captive elk and the potential for interbreeding of wild elk with domestic elk whose genetic make-up has been altered through several generations of selective breeding or through interbreeding with domestic red-deer. Although red deer are now a prohibited species in Montana, historically some alternative livestock operators did bring red-deer or red-deer hybrids into their facilities. The concern regarding red deer hybrids is partially mitigated through current regulations. All elk placed on a proposed alternative livestock facility are required to be tested for red-deer genes prior to movement to the facility. The required elk/red-deer hybrid test, however, may not effectively identify red-deer hybrids if the animal is more than two generations removed from a pure red-deer parent. Fencing requirements and stipulation(s) included in this EA would limit the potential for ingress and egress resulting in a low probability for ingress or egress and resulting interbreeding to occur.

5(e) – The proposed enclosure would create a partial barrier to the movement of wild deer and possibly elk near the Stillwater River (Figure 3). The proposed alternative livestock enclosure would extend about 2,000 feet across lowlands near the Stillwater River.

5(g) – Construction of the enclosure would result in conditions that increase stress on a relatively minor basis to deer living in this area by eliminating some habitat.

NO ACTION:

No wildlife-related impacts are expected to occur under the No Action alternative. The existing 38-acre alternative livestock facility likely would continue in operation.

CUMULATIVE EFFECTS:

As a result of the adjacent 38-acre alternative livestock enclosure, cumulative impacts to wildlife/fisheries would occur; although, these effects on fish and wildlife are expected to be minor on a cumulative basis.

REQUIRED STIPULATIONS:

1. If ingress or egress becomes a problem due to excessive snow accumulation or differential slope heights along the perimeter fence, fence height shall be increased in the identified problem areas.

The stipulation listed above is imposed to mitigate a potentially significant risk from potential ingress/egress of alternative livestock and wildlife due to fence height concerns from hillsides and potential snow accumulation. Some moderately-steep (20 to 30 percent) slopes exist in the northeast and south-central portions of the proposed enclosure. Typically, winter snow depths in this area can reach several feet, but usually are 1 to 2 feet at any given time. Blowing and drifting snow can also increase packed snow depths. Without the

requirements specified in the stipulation, risk to livestock and wildlife from contact with alternative livestock would have the potential to be significant, due to the site being located in an area currently utilized by wild game and predators. This stipulation would apply to the existing 38-acre enclosure, as well as the proposed 82-acre enclosure.

RECOMMENDED MITIGATION MEASURES:

The following management practices will help to minimize impacts to free-ranging wildlife species. Implementing these mitigation measures, most of which are standard practices, is highly recommended.

- Store feed away from exterior fences or enclose in bear-resistant containers or buildings.
- Feed alternative livestock at interior portions of the enclosure and not along the perimeter fence.

SUMMARY OF POTENTIAL IMPACTS TO WILDLIFE:

- 1) Wildlife use of the area and potential for through-the-fence contact with alternative livestock (consider year-round use, traditional seasonal habitat use, and location of travel routes and migration corridors).

Given year-round use of the area by deer and elk, the potential for nose-to-nose contact through the fence exists and would increase during the winter months. This risk of contact can be reduced by feeding alternative livestock at interior portions of enclosures rather than along exterior fences, and by closely monitoring exterior fences on a frequent basis.

Frequency of fence line contact between alternative livestock and wildlife and the risk that this contact might result in disease transmission is mitigated by disease testing requirements. In order for disease transmission to occur, the organism causing the disease needs to be present. Any alternative livestock introduced to this proposed facility would be tested disease-free for brucellosis and tuberculosis prior to movement to the facility, so the likelihood of transmission from domestic to wild animals is minimal.

- 2) Potential for escape of alternative livestock or ingress of wildlife (consider site-specific factors that could reduce the effectiveness of perimeter fences built to the standards outlined in Rule 12.6.1503A, including steepness of terrain, winter snow depths/drifts, susceptibility of fences to flood damage, etc.).

The proposed exterior fence alignment would follow primarily low to moderate gradient slopes (<10 percent), with some moderately-steep (20 to 30 percent) portions in the northeast and south-central part of the proposed enclosure (Figure 2). Typically, winter snow depths in this area can reach several feet, but usually are 1 to 2 feet at any given time. Blowing and drifting snow can also increase packed snow depths.

- 3) Proportion (%) of the total habitat area currently used by wildlife that will be enclosed or otherwise impacted.

Wildlife currently use many thousands of acres in the area, even during the more restricted winter months. The proportion of habitat excluded by the proposed facility constitutes far less than 1 percent of the area.

REFERENCES:

FWP, 1997. Draft Environmental Assessment, BCD Land & Livestock Game Farm Near Kalispell, Montana. Montana Fish, Wildlife & Parks, Region One.

B. HUMAN ENVIRONMENT

6. NOISE & ELECTRICAL EFFECTS	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will Proposed Action result in:						
a. Increase in existing noise levels?			X		Yes	6(a)
b. Exposure of people to serve or nuisance noise levels?		X				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		X				
d. Interference with radio or television reception and operation?		X				

AFFECTED ENVIRONMENT:

The existing 38-acre alternative livestock facility is located on the south side of the proposed enclosure. The area surrounding the proposed alternative livestock facility is sparsely populated. A relative of the applicants lives near the north side of the existing facility (Figure 2), and another house is located near the northwest corner of the proposed expansion area. Several other residences are scattered within a mile of the alternative livestock site.

PROPOSED ACTION:

6(a) – Minor increases to existing noise levels are expected as a result of constructing the fence and from bull elk bugling during the mating season. Fence construction would be short-term. The magnitude of bugling noise would be dependent on the number of bull elk in the enclosure during the mating season.

NO ACTION:

No impacts to existing noise levels are expected for the No Action alternative.

CUMULATIVE EFFECTS:

The existing 38-acre alternative livestock facility, in combination with the proposed expansion, could result in up to 600 elk and deer on 120 acres. As a result, cumulative impacts to noise levels could occur. The magnitude of these noise effects is expected to be minor on a cumulative basis.

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

If excess noise from bugling during the rut results in substantial complaints, reduce the number of bull elk and/or confine bulls to portions of the enclosure that are farthest from the nearest residential areas.

7. <u>LAND USE</u> Will Proposed Action result in:	Impact				Can Impact Be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		X				
b. Conflicted with a designated natural area or area of unusual scientific or educational importance?		X				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		X				
d. Conflict with any existing land use that would be adversely affected by the proposed action?		X				
e. Adverse effects on or relocation of residences?	X				NA	7(e)

AFFECTED ENVIRONMENT:

Principal land use of the alternative livestock site and vicinity is irrigated cropland and livestock grazing. The proposed operation would be consistent with existing land uses and is surrounded by private farmland. The Stillwater State Forest is located approximately 1 mile northeast and 1½ miles west-northwest of the proposed enclosure (Figure 1). The nearest federally-owned land is National Forest located about 3 miles west of the site (Figure 1). There are several sparsely located residences (other than the one located at the alternative livestock site) located within one mile of the site (Figure 2). County roads extend along the east and south sides of the proposed enclosure (Figures 1 and 2).

PROPOSED ACTION:

7(e) – The proposed alternative livestock operation would be compatible with existing agricultural land uses, including forestry. Potential effects of the alternative livestock facility on adjacent property values are difficult to evaluate because some nearby owners or residents may like the idea of an alternative livestock facility, whereas others would find it undesirable.

NO ACTION:

Under the No Action alternative, agricultural uses for the area would likely continue.

CUMULATIVE EFFECTS:

No cumulative effects would occur to land use as a result of the alternative livestock facility.

COMMENTS:

No stipulations or mitigation measures are required or recommended for land use.

8. <u>RISK/HEALTH HAZARDS</u> Will Proposed Action result in:	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Risk of dispersal of hazardous substances (including, but not limited to chemicals, pathogens, or radiation) in the event of an accident or other forms of disruption?			X		Yes	8(a)
b. Creation of any hazard or potential hazard to domestic livestock?			X		Yes	8(b)
c. Increased risk of contact and disease between elk ranch animals and wild game?			X		Yes	8(c)
d. Creation of any hazard or potential hazard to human health?			X		Yes	8(d)

AFFECTED ENVIRONMENT:

See Section 3 (*Water Resources*), Section 5 (*Fish & Wildlife*), and Section 7 (*Land Use*) for information that describes the affected environment with respect to this section (*Risk/Health Hazards*). It should be noted that public shooting of alternative livestock is not proposed by the applicant at the BCD Land & Livestock facility.

PROPOSED ACTION:

8(a) – There is potential for transmission of water-borne disease pathogens, if present, to be transported downstream from the facility via runoff into channels that drain to the Stillwater River. However, as described in the *Water Resources* section, there is little chance that surface runoff from the enclosure would reach the river during normal precipitation conditions. The DoL currently conducts disease monitoring and testing for brucellosis and tuberculosis. Brucellosis has not occurred on any alternative livestock ranch in Montana. At this time, Montana is classified as both a Brucellosis Class Free State and as a Tuberculosis Accredited Free State; these diseases do not exist in alternative livestock or traditional livestock in Montana.

Chronic wasting disease (CWD) has been detected in alternative livestock and free-ranging deer and elk in several states or provinces. CWD has been affecting wild deer and elk in Colorado and Wyoming for at least 17 years. Through the surveillance placed on all alternative livestock operations by DoL in April 1999, CWD was detected in a Montana alternative livestock facility. The CWD affected herd was depopulated. All Montana alternative livestock 16 months of age or older that die, are subject to mandatory testing for CWD.

Risk of disease transmission can be mitigated through the existing CWD surveillance of Montana alternative livestock. The DoL's CWD regulations provide requirements for mandatory surveillance, and enhancement of trace-back and observation capabilities. The mandatory 5 years of CWD surveillance prior to importation into Montana minimizes the risk of introduction of additional cases into the state. Route of CWD transmission at this time is unknown; therefore, the potential for transmission by soil, water or other media into receptor animals cannot be determined.

8(b) – The risk of disease being passed from alternative livestock to traditional livestock would be further mitigated if fence integrity is maintained and the stipulations and/or mitigation measures described in this EA are followed. Potential for disease transmission to traditional livestock from alternative livestock is additionally mitigated through DoL disease testing requirements. All animals to be placed on this facility are required to be tested for tuberculosis and brucellosis at the time of import, purchase and/or transportation to the ranch. Montana is presently a tuberculosis-free and brucellosis-free state (i.e., these diseases have not been diagnosed in traditional livestock).

Each alternative livestock facility is required to have access to an isolation pen (quarantine facility) on the facility or approved quarantine plan to isolate any animals that are imported or become ill. The state veterinarian can require additional testing and place herds under strict quarantine should problems arise. In addition to the standard requirements for alternative livestock ranches, and the additional stipulations and suggested mitigation measures proposed in this EA, it should be noted that there are significant economic incentives for the applicant to follow best management practices. The inadvertent acquisition of diseased animals would risk a substantial investment in breeding stock and the facilities required to maintain those animals. There is currently no evidence of CWD transmission to traditional domestic livestock.

8(c) – Fence integrity must be maintained to minimize the potential for ingress and egress. Differential slope heights and potential for excessive snow accumulation along portions of the perimeter fence have the potential to significantly affect the game-proof condition of the fence. Standard fencing requirements as required by statute would substantially reduce potential for ingress and egress.

8(d) – There is some risk of infection to hunters who field dress deer or elk infected with tuberculosis or brucellosis. Routine brucellosis and tuberculosis testing requirements for alternative livestock offer a measure of surveillance that minimizes that risk. Failure to comply with these requirements is grounds for license revocation. Hunters routinely kill wild mule deer and elk in areas of Wyoming and Colorado where CWD is known to occur. To date, there have been no confirmed cases of CWD transmission to humans.

NO ACTION:

Risk/health hazards would not occur from the No Action alternative, other than those that may be associated with the existing land use.

CUMULATIVE EFFECTS:

As a result of the existing 38-acre alternative livestock facility, cumulative risk/health hazards could develop; however, the magnitude of these effects is expected to be minor on a cumulative basis.

REQUIRED STIPULATIONS:

See stipulation in Section 5 (*Fish & Wildlife*).

RECOMMENDED MITIGATION MEASURES:

The mitigation measures recommended in Section 5 (*Fish & Wildlife*) are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, periodic removal of manure from concentration areas, and development of a disease immunization and parasite treatment protocol as applicable to alternative livestock.

9. <u>COMMUNITY IMPACT</u> Will Proposed Action result in:	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		X				
b. Alteration of the social structure of a community?		X				
c. Alteration of the level or distribution of employment or community or personal income?		X				
d. Changes in industrial or commercial activity?		X				
e. Changes in historic or traditional recreational use of an area?		X				
f. Changes in existing public benefits provided by affected wildlife populations and wildlife habitats (educational, cultural or historic)?		X				
g. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		X				

AFFECTED ENVIRONMENT:

The proposed alternative livestock facility is located in a sparsely populated area of Flathead County, approximately 7 miles northwest of Kalispell and 10 miles southwest of Whitefish. State-owned forest land located approximately 1 mile northeast and 1½ miles west-northwest of the proposed enclosure (Figure 1) is used primarily by local residents.

PROPOSED ACTION:

Some local residents may feel the alternative livestock operation would decrease their quality of life. Neighbors harboring negative feelings about the operation would perceive a loss in their sense of social well-being. However, some neighbors and local residents may like the idea of an alternative livestock facility and enjoy viewing the elk, deer, or other alternative livestock. These people may feel the facility would add to their quality of life and sense of well-being.

NO ACTION:

Although there would be no expanded alternative livestock facility as proposed by the applicants with the No Action alternative, denial of the application may be welcomed by those who may be opposed to it, if any. Ill feelings, however, may be harbored by people who may favor the facility.

CUMULATIVE EFFECTS:

Cumulative effects on the community are expected to be negligible as a result of the existing and proposed alternative livestock operations.

COMMENTS:

No stipulations or mitigation measures are required or recommended.

10. <u>PUBLIC SERVICES & TAXES</u> Will Proposed Action result in:	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. A need for new or altered government services (specifically an increased regulatory role for FWP and Dept. of Livestock)?			X		NA	10(a)
b. A change in the local or state tax base and revenues?			X		NA	10(b)
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?		X				

AFFECTED ENVIRONMENT:

The applicants currently pay property taxes for the land proposed for the alternative livestock site, and would pay taxes on the animals after they are placed on the site. Prevailing land use within the proposed enclosure site is agriculture, which has a relatively low average appraisal value.

PROPOSED ACTION:

10(a) – Approval of the alternative livestock facility would increase time and expenses spent by FWP and DoL personnel inspecting and monitoring the operation. The proposed enclosure, however, is located next to the existing 38-acre licensed alternative livestock facility owned and operated by the applicants. Since neither FWP or DoL has the option of hiring additional employees to handle the increased workload that would be created by the facility, activities of the current staff would need to be re-prioritized to meet the increased demand created by this operation.

10(b) – Placing alternative livestock in the proposed facility would increase the annual tax contribution from the property, with collected taxes going toward the state, county, and local school district. Elk placed on the proposed facility may originate from the existing facility where the Class 6 property tax and per capita tax on the animals currently are being paid. However, additional Class 6 taxes and per capita taxes would be paid for any alternative livestock born on the facility or the proposed expansion when age eligible, with the Class 6 taxes collected going to the local county and the per capita taxes going to the state. The expansion would allow for more animals to be born on the facility; therefore, the annual tax contribution from Class 6 and per capita taxes would increase.

NO ACTION:

Under the No Action alternative, FWP and DoL would not have to inspect and monitor this alternative livestock facility; however, they would still periodically monitor the existing 38-acre facility. The current status of tax payments for this property would remain for the No Action alternative.

CUMULATIVE EFFECTS:

No cumulative impacts are expected on public services and taxes from the proposed alternative livestock expansion project, other than the taxes mentioned above.

COMMENTS:

No stipulations or mitigation measures are required or recommended.

11. AESTHETICS & RECREATION	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will Proposed Action result in:						
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?	X				NA	11(a)
b. Alteration of the aesthetic character of a community or neighborhood?		X				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?	X				NA	11(a)

AFFECTED ENVIRONMENT:

The proposed alternative livestock site is located in a sparsely populated area of Flathead County, approximately 7 miles northwest of Kalispell and 10 miles southwest of Whitefish, Montana. State owned forest land is located approximately 1 mile northeast and 1 ½ mile west-northwest of the proposed enclosure (Figure 1), and is used primarily by local residents.

PROPOSED ACTION:

11(a) – The presence of the alternative livestock and 8-foot high fence is not expected to result in any major adverse impact to the area's visual character or recreation opportunities. Some nearby residents may not appreciate having an 8-foot high fence to view. Persons who might enjoy viewing elk or other alternative livestock may consider the proposed facility a recreational opportunity.

NO ACTION:

No adverse impacts to aesthetics or recreation are expected under the No Action alternative.

CUMULATIVE EFFECTS:

No cumulative impacts are expected, although there is an existing 38-acre alternative livestock facility located adjacent to the proposed enclosure.

COMMENTS:

No stipulations or mitigation measures are required or recommended.

12. <u>CULTURAL & HISTORICAL RESOURCES</u>	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
Will Proposed Action result in:						
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?	X				Yes	12(a)
b. Physical change that would affect unique cultural values?		X				
c. Effects on existing religious or sacred uses of a site or area?		X				

AFFECTED ENVIRONMENT:

A file search was conducted by the State Historic Preservation Office (SHPO) for the proposed project area. Results of this search show there are no previously recorded historic or archaeological sites within the designated project site (SHPO 2000). According to SHPO, the absence of cultural properties does not mean that they don't exist, but rather may reflect the lack of any previous cultural resource inventory.

PROPOSED ACTION:

12(a) – According to SHPO (2000), there is a potential for the project to impact cultural properties. It recommends that a reconnaissance survey be conducted in order to determine whether or not such sites exist and if they will be impacted.

NO ACTION:

No impacts to cultural resources are expected from the No Action alternative unless other disturbances occur within the property.

CUMULATIVE EFFECTS:

No additional impacts from past, present and reasonably foreseeable activities near the proposed alternative livestock facility are anticipated. There are no known cultural resources in the existing 38-acre alternative livestock facility located adjacent to the proposed enclosure.

REQUIRED STIPULATIONS:

None

RECOMMENDED MITIGATION MEASURES:

If archeological artifacts are observed during construction of the facility fence or from other activities, work should stop in the area and the discovery reported to: Montana Historical Society; Historic Preservation Office; 1410 8th Avenue; P.O. Box 201202; Helena, Montana 59620; phone (406) 444-7715.

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs and preserve the artifact(s).

REFERENCES:

Montana State Historic Preservation Office (SHPO), 2000. Letter from Phillip Melton (SHPO, Helena, MT) to Nancy Ivy (Montana Fish, Wildlife & Parks), May 22, 2000.

C. SUMMARY

13. SUMMARY Would Proposed Action, considered as a whole:	Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Potentially Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total)		X				
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?			X		Yes	13(b)
c. Potentially conflict with the substantive requirements or any local, state, or federal law, regulation, standard or formal plan?		X				
d. Establish a precedent or likelihood that future actions with significant environmental impacts would be proposed?	X					13(d)
e. Generate substantial debate or controversy about the nature of the impacts that would be created?			X		Yes	13(e)

PROPOSED ACTION:

13(b) – Refer to discussion in Section 8 (*Risk/Health Hazards*).

13(d) – The precedent for permitting alternative livestock ranches with the knowledge that there are some uncertainties about the potential risk of disease transmission between captive and wild animals already is established. The alternative livestock industry is established in Montana and the legislature recognizes that the production of alternative livestock provides a viable economic opportunity for any private property owner as well as the traditional livestock producers who are interested in diversifying their ranch productivity (MCA 87-4-431). Statutes and regulations that govern the industry presume that it is appropriate to permit new operations, with reasonable restrictions to protect Montana's interests in its resident wildlife.

13(e) – Montana FWP and DoL acknowledge that the permitting of alternative livestock ranches generates public controversy. Some issues are particularly controversial when alternative livestock facilities block migration routes or consume significant areas of land historically utilized by wild game. Because the proposed expansion of Tutvedt's BCD alternative livestock facility would not significantly block big game migration routes or consume a significant portion of land utilized by wild game, the controversial nature of the Proposed Action is minor.

Montana FWP and DoL also acknowledge that there are uncertainties regarding diseases of wildlife and alternative livestock, and the transmissibility of disease. The agencies agree that an outbreak of livestock disease in one or more wildlife populations would be a significant, negative effect. However, with careful attention to current regulations and implementation of the mitigation measures specified in this EA, the transmission of disease from alternative livestock on the proposed alternative livestock ranch to wildlife is a very unlikely event.

NO ACTION:

Potential risks or adverse effects which are uncertain would not occur from the No Action alternative, other than those associated with the existing land use.

CUMULATIVE EFFECTS:

The general area is used for agriculture, with sparse housing surrounding the site. The Proposed Action would expand the existing 38-acre alternative livestock facility by an additional 82 acres, and add up to 400 more alternative livestock to the total enclosure area. The existing operation is licensed for up to 200 animals on 38 acres. This existing facility, in combination with the proposed expansion, could result in up to 600 elk on 120 acres. As a result, cumulative impacts could develop; however, the magnitude of these effects is expected to be minor on a cumulative basis as long as a reasonable stocking rate is maintained and impacts to vegetation are monitored and addressed in a timely manner.

REQUIRED STIPULATIONS:

See Section 5 (*Fish & Wildlife*).

RECOMMENDED MITIGATION MEASURES:

See Section 5 (*Fish & Wildlife*).

SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA

- a. **Does the Proposed Action have impacts that are individually minor, but cumulatively considerable? (A project may result in impacts on two or more separate resources that create a significant effect when considered together or in total).**

No. A 38-acre licensed alternative livestock facility is located adjacent of the proposed facility. Cumulative impacts from these two operations, however, are expected to be minor on a cumulative basis as long as a reasonable stocking rate is maintained and impacts to vegetation are monitored and addressed in a timely manner.

- b. **Does the Proposed Action involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?**

Yes. A potential risk or adverse effect that is uncertain, but extremely hazardous if it were to occur, would be the spread of a disease or parasite from alternative livestock to wild elk or deer. The risk and appropriate measures to mitigate the risk are discussed in Section 5 (*Fish & Wildlife*), Section 8 (*Risk/Health Hazards*), and Section 13 (*Summary*) of this EA.

- c. **Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:**

The No Action alternative would avoid many of the potential impacts listed above. This site would likely be managed for agriculture. The No Action alternative would probably not exclude of wildlife from this site.

- d. **Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:**

This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (Environmental Quality Council (EQC), 1996). A completed checklist designed to assist state agencies in identifying and evaluating proposed agency actions, such as imposed stipulations, that may result in the taking or damaging of private property, is included in Appendix A. Mitigation measures described in this section address both minor and significant impacts. The required stipulation is designed to ensure that the fence enclosure is maintained in game-proof condition. Most potential minor impacts from the Proposed Action are addressed as mitigation measures that are recommended, but not required.

STIPULATION #1

1. If ingress or egress becomes a problem due to excessive snow accumulation or differential slope heights along the perimeter fence, fence height shall be increased in the identified problem areas.

Restriction on Private Property Use

These requirements do not restrict the use of private property by requiring the following: raising the fence where snow drifts and/or differential slope heights may cause ingress/egress.

Alternatives

Do not perform the additional fencing measures described above.

This alternative would not adequately address potential problems that may compromise fence integrity resulting in ingress/egress at the facility.

Benefits from Imposing the Stipulation

These requirements are imposed to minimize potential ingress/egress at the proposed alternative livestock facility. In addition to existing FWP fencing and wildlife protection requirements, these requirements would effectively reduce the risk of contact between alternative livestock and wildlife and traditional livestock.

Types of Expenditures the Requirement Would Mandate

Performing the measures described above as needed to maintain the fence in game-proof condition would not cause a substantial increase in fence construction and facility operation costs. Raising the fence height in areas where ingress/egress may occur due to differential slope heights and/or where excessive snow may accumulate would not likely increase fencing costs to a significant degree.

Requirement's Effect on Property Values

None expected.

PART III. EA CONCLUSION

1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO

No. The appropriate level of analysis for the Proposed Action is a mitigated EA because:

- All impacts of the Proposed Action have been accurately identified in the EA; and
- All identified significant impacts would be mitigated to minor or none.

2. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the Proposed Action, is the level of public involvement appropriate under the circumstances?

Upon completion of the Draft EA, a notice is sent to adjoining landowners, local newspapers, and other potentially affected interests, explaining the project and asking for input during a 21-day comment period which extends from August 10, 2000 until 5 pm August 31, 2000. The Draft EA is also available to the public from the FWP addresses and phone numbers listed below and in the *Summary* section of this EA (p. 2), and through the State Bulletin Board System during the public comment period.

3. Duration of comment period if any: 21 days

4. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Fish, Wildlife & Parks

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APPENDIX A

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on the following checklist refer to the following requirements:

1. If ingress or egress becomes a problem due to excessive snow accumulation or differential slope heights along the perimeter fence, fence height shall be increased in the identified problem areas.

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES

NO

 X

1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?

 X

2. Does the action result in either a permanent or indefinite physical occupation of private property?

 X

3. Does the action deprive the owner of all economically viable uses of the property?

 X

4. Does the action deny a fundamental attribute of ownership?

 X

5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is **NO**, skip questions 5a and 5b and continue with question 6.]

5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?

5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?

 X

6. Does the action have a severe impact on the value of the property?

 X

7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is **NO**, do not answer questions 7a-7c.]

7a. Is the impact of government action direct, peculiar, and significant?

7b. Has government action resulted in the property becoming practically inaccessible, waterlogged, or flooded?

7c. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.