

View from Alpine Mountain Ranch homesite.



Wildlife Mitigation Plan

August 18, 2006



Ecological Consultants

WESTERN BIOMICS LLC Natural Resource Management Services
348 River Road • Steamboat Springs, CO 80487 • PH: 970-870-9031 • kscolfer@msn.com



TABLE OF CONTENTS

1.	Introduction.....	1
1.1	Master Development Plan.....	1
1.2	Amenities	2
2.	Vegetation Cover Types	3
2.1	Aspen	3
2.2	Conifer	4
2.3	Mountain Shrub	4
2.4	Riparian.....	4
2.5	Sagebrush.....	4
3.	Development Issues	5
3.1	Elk	5
3.1.1	Elk Winter Range.....	5
3.1.2	Elk Calving Range	5
3.1.3	Human Recreation Conflicts.....	6
3.1.4	Game Damage Conflicts	6
3.2	Black Bear.....	6
3.3	Great Blue Heron	6
4.	Wildlife Mitigation Objectives:	7
5.	Mitigation.....	8
5.1	Implementation of Mitigation Projects	8
5.1.1	Wildlife Preserve Conservation Easement.....	8
5.1.2	On-Site Mitigation	9
5.1.3	Off-Site Mitigation.....	9
5.2	On-Site Habitat Enhancement.....	9
5.2.1.1	Remainder Parcels	10
(a)	Mountain Shrub Treatments	10
(b)	Sagebrush Treatments.....	10
(c)	Conifer Treatments	10
5.2.1.2	Within Lot Treatments.....	11
5.2.1.3	Treatment Schedule	11
5.3	Off-Site Mitigation Trust	12
5.4	Cottonwood/Willow Riparian Management	13
5.5	Fishery Management.....	14
5.6	Noxious Weed Management.....	14
5.7	Building Envelopes.....	15
5.8	Landscaping and Reclamation	15
5.9	Fencing.....	16
5.10	Livestock.....	16
5.10.1	Wildlife-Livestock Conflicts	16

5.10.2 Permittee Game Damage Compensation	16
5.10.3 Livestock Grazing.....	16
5.11 Access and Use Restrictions	17
5.11.1.1 Elk Wintering Areas	17
5.11.1.2 Elk Calving Areas.....	18
5.12 Pet Control Restrictions	18
5.13 Nuisance Wildlife and Predators	19
5.14 Wildlife Mortality on Local Roads	20
5.15 Hunting	21
5.16 CDOW Cooperative Management.....	21
5.17 Colorado Division of Wildlife Indemnification.....	21
5.18 Resident Education	21
6. Amendment and Enforcement	21
7. Endorsement	22
8. Assignment	22
9. Signature Page	23

Figures

Figure 1. Vegetation Cover Types	25
Figure 2. Elk Winter and Production Range, Heavily Used Habitat	26
Figure 3. Great Blue Heron Rookery and 500m Buffer.....	27
Figure 4. Habitat Enhancement Treatments.....	28
Figure 5. Off-Site Elk Winter Range Mitigation Area	29
Figure 6. Seasonal Closures.....	30
Appendix A – Monitoring Form	31



1. INTRODUCTION

This Wildlife Mitigation Plan (WMP) is a legal agreement between the Colorado Division of Wildlife (CDOW) and Alpine Mountain Ranch at Steamboat Springs, LLP, developer of the Alpine Mountain Ranch (AMR) project, for the purpose of providing action items to avoid, minimize, and mitigate the wildlife impacts associated with the development of AMR. Mitigation items are based on reconnaissance conducted by Monarch & Associates during all seasons of the year over an 11 year period from December 1993 through August 2004. Information gathered during those studies has been used in preparing a baseline report, which was used to guide developers throughout the planning process.

This WMP is organized according to specific habitat and wildlife issues. Where mitigation measures apply to more than one issue, they are discussed only once under the most appropriate issue.

AMR is a Land Preservation Subdivision (LPS). Routt County's LPS exemption preserves Routt County's rural character by clustering homesites on smaller lots than the base zoning permits, in exchange for preservation of at least 100 acres of open space. The LPS program provides an alternative to subdividing property into the standard 35-acre lots that state statute allows.

AMR is participating in the *Non-Contiguous Remainder Parcel* pilot program recently adopted by the Routt County Board of Commissioners. Prior to the implementation of this pilot program, the LPS regulations required that all of the land in an LPS be contiguous. The pilot program allows some or all of the Remainder Parcel (the land which is left undeveloped) to be located on a different parcel provided it meets the LPS design criteria and furthers the goals of the Routt County Master Plan, South Steamboat Area Plan, and Steamboat Springs Area Community Plan.

AMR was historically used for raising cattle and hay production. The property occupies approximately 1,216 acres of land located in portions of Sections 2 & 3, Township 5 North, Range 84 West, Sections 34 & 35, Township 6 North, Range 84 West and Section 26 Township 6 North, Range 84 West 6th Principal Meridian, in Routt County, Colorado.

1.1 MASTER DEVELOPMENT PLAN

This section discusses the issues of AMR's Master Plan respective to wildlife habitat. These impacts, along with impacts of human occupation in wildlife habitat, define the purpose behind the objectives of the WMP.

AMR has clustered 63 residential lots (Figure 1) into three pods that occupy approximately 315 acres (63 - ±5 acre building lots). Actual building improvements to each lot are limited to building envelopes that average 0.4 acre in size, for a total of 25 acres of physical ground disturbance. Irrigated landscaping around dwellings is limited to 4,000 square feet within the building envelope. Any vegetation planted outside the building envelope is required to be native. In addition, there will be approximately 21.7 acres of access roads. Some underground utilities will be buried in road corridors and will not result in any additional surface disturbance. In those cases where underground utilities are not included in the road corridors, these areas will be re-contoured and revegetated with native species. There will be a short term loss of habitat in these areas, but with the establishment of vegetation will again be suitable wildlife habitat. Thus, the total physically disturbed acreage on the property will be approximately 46.7 acres (building envelopes plus access roads), or 4% of the property.

Aside from the direct physical disturbance posed by development in wildlife habitat, there will also be some indirect impacts to wildlife. Quantification of the indirect impacts of development on wildlife is poorly documented in the scientific literature; most research into indirect impacts has focused on road impacts to game species. While impacts of road development are considered significantly different from impacts resulting from residential development and subsequent human occupation of an area, these studies do provide some valuable information. Many studies suggest that, in the absence of suitable hiding cover, elk habitat utilization may be reduced beyond the development footprint. Estimates of the distance that this zone of disturbance extends vary dependent on nature of the disturbance, individual animal, habitat type, and season. Flushing distance, or the distance at which an elk flees in response to disturbance, have been documented from as little as 50' up to 1000'. The zone of disturbance at AMR most likely falls somewhere within this range, closer to the low end in areas of good hiding cover, and closer to the far end in areas of poor cover.

1.2 AMENITIES

This portion of the WMP documents the issues of AMR's Amenities relative to wildlife habitat. These impacts have further helped to define the objectives of the WMP.

AMR's Conditional Use Permit (CUP) authorizes amenity buildings including the Ranch Manager's Residence, Owner's Lodge/Recreation Center, Barn, and Hermitage (Figure 1). These facilities have been designed with the goal of preserving the rural heritage of the site, while providing on-site recreational activities for property owners and their guests.

Non-motorized recreation, including hiking and mountain biking, will be allowed on primitive (natural surface), 3 foot wide trails. Seasonal closures of some trails will be implemented to protect wildlife (see Section 5.11). No excavation or fill will occur within riparian wetland areas. Way finding in these areas will be accomplished mostly by following small trail indicators (e.g. the blue triangles used by the Forest Service). The trail system will utilize existing roads (i.e.

Pine Springs Gulch Road, old two track roads and trails) as much as feasible to minimize vegetation disturbance.

2. VEGETATION COVER TYPES

The AMR property is drained by three tributaries, Pine Spring Gulch, Priest Creek, and Walton Creek. Pine Spring Gulch and Priest Creek drainages flow roughly east to west draining the foothills on the lower portion of the Park Range Mountains, discharging into Walton Creek near the western boundary of the property. Walton Creek, a tributary of the Yampa River, is the largest drainage in the project area and runs roughly south to north along the lower flatter portions of the property along its western edge. This creek is flanked on both sides by riparian areas dominated by narrowleaf cottonwoods, mountain alder, and willows. Wetlands occur in irrigated areas, in portions of the riparian areas adjacent to the creeks and in old oxbows and meander channels. Riparian habitat is also found along the lower portions of Priest and Pine Spring Gulch drainages.

Predominant land use on the property has historically been farming and ranching. Most of the flatter portions of the property have been converted to irrigated meadow and pastureland. Outside of the irrigated areas, vegetation is dominated by a mixture of aspen, Gambel oak, serviceberry, chokecherry, spruce-fir, and sagebrush.

Vegetation on AMR (Figure 1) provides habitat for a broad variety of wildlife species. Table 1 displays the acreage, by cover type, present on the property. The quality of habitat for wildlife varies throughout the ranch dependent on site specific characteristics.

2.1 ASPEN

Aspen communities are found throughout the property with larger stands located in moister areas at higher elevations. Most of these stands are mature to over-mature with little regeneration. Aspen stands located in the most heavily utilized areas exhibit significant damage from elk wintertime browsing.

Most aspen stands on AMR support an understory of mountain shrub species including chokecherry, serviceberry, and snowberry. In recent years bracken fern has increased in the area,

Table 1. Alpine Mountain Ranch. Vegetation Composition.	
Cover Type	Acreage
Aspen	128.55
Conifer	184.68
Mountain Shrub	736.50
Native Grassland	11.23
Pasture Grass	101.87
Riparian Willow/Cottonwood	36.06
Sagebrush	17.91
Total	1216.80

particularly from late spring into summer. Ferns are tall and dense enough to reduce the value of these areas for wildlife. In wet years, these stands of bracken fern reach a condition where cow elk with calves do not use them.

2.2 CONIFER

Spruce-fir vegetation type is found on north facing slopes in all drainages. These spruce-fir pockets are limited in size and restricted by conditions that are suitable for their growth. Within these pockets, lodgepole pine currently dominates the drier areas with spruce and sub-alpine fir found in the moister locations. In these pockets there is little understory, which affects their importance for wildlife. Thinning to remove beetle-infested trees in a few areas has resulted in the establishment of aspen, shrubs and grass forbs in those areas, increasing both the density and diversity of wildlife within these spruce-fir pockets.

2.3 MOUNTAIN SHRUB

Mountain shrub habitat, dominated by Gambel oak, is the dominant cover type on the property. It is found in association with serviceberry on drier locations throughout the property. There is very little regeneration of this species and the mature shrubs are tall, subsequently reducing winter forage for elk. Mountain shrub habitat is particularly important to elk during winter. Throughout AMR, mountain shrub communities display evidence of heavy utilization and individual oaks are heavily clubbed and broomed as a result of heavy utilization by elk during the winter.

2.4 RIPARIAN

There is a limited amount of riparian habitat along the Pine Spring Gulch and Priest Creek drainages. Due to heavy livestock grazing in the past, there is little regeneration of cottonwoods and willows. Thus, understory is limited and as the older cottonwoods die out, there are very few young trees to replace them. Given the current conditions, riparian habitat along these streams is supporting significantly less wildlife than would be found with better conditions. Riparian habitat condition is somewhat better along Walton Creek but is still well below what would be considered optimal.

2.5 SAGEBRUSH

There are some sagebrush pockets on drier south and west facing slopes in association with other vegetation types. This adds to the diversity of wildlife that occurs in the area. Most of the sagebrush is old and becoming decadent, which makes it less desirable to wildlife.

3. DEVELOPMENT ISSUES

During preparation of this WMP, several issues were identified as being the most significant with regard to development of AMR and are described in detail in the following sections. These issues include:

- Impact to elk winter range.
- Impact to elk calving areas.
- Potential conflicts when humans recreate in occupied elk winter range.
- Potential game damage conflicts.
- Black Bear/Human conflicts.
- Potential impacts to Great Blue Heron rookery.

3.1 ELK

3.1.1 Elk Winter Range

The CDOW has identified the entire AMR property as elk winter range. However, based on elk winter population and habitat use data collected during Monarch and Associates' 11 year study, elk use of the property during the winter most commonly occurs in certain areas, as shown in Figure 2. Elk use of the area during the winter is more a function of habitat conditions than elevation, although snow depth plays a role. Elk most commonly winter on south and east facing slopes from the lower reaches above the hay meadow to the upper reaches of the property and onto adjacent United States Forest Service (USFS) lands.

AMR homesites and access roads are located within portions of elk winter range on the property. Gambel oak and aspen communities on AMR lands and elsewhere throughout Colorado provide important winter and year-round forage opportunities for elk.

3.1.2 Elk Calving Range

Some elk are year-round residents on the property. Others move to higher elevations on USFS lands in spring and return in the fall. Cow elk were observed calving on and adjacent to the property over the 11 years of studies. The general areas where calving occurred in the past 11 years are displayed in Figure 2. Where elk calved varied from year to year depending on conditions. In those years when there was snow remaining at mid to higher elevations and green-up had not started, elk calved at lower elevations. In those years when there was an earlier green-up at higher elevations, cow elk moved into higher areas on USFS lands to calve. During all years, calving did occur within portions of the AMR property. The areas where elk have been

calving in the Priest Creek drainages are included in the Wildlife Preserve parcel. Portions of the area where they have been calving in Pine Spring Gulch are in the Upland Preserve parcel. In recent years, calving has been occurring on the north facing hillside just above the hay meadow. The elk (20+ cows) that calve on the hillside by the hay meadow will likely be displaced by the presence of houses and roads above and below the area generally used for calving. These animals will probably utilize other suitable areas on or near the property for calving.

3.1.3 Human Recreation Conflicts

Winter recreation in elk winter range represents potentially serious impacts to elk since the impact occurs when animals are in a weakened condition, food supplies are low, and the ability to conserve energy is critical to an animal's survival. Currently, numerous winter recreation visits (trespasses) occur on the northern portion of the property from the Whistler Subdivision area within the City of Steamboat Springs.

3.1.4 Game Damage Conflicts

Elk and deer cause damage by browsing on trees, shrubs, and other ornamental plantings; by feeding on alfalfa and grass in fields, pastures, and haystacks; and by running through fences. Because Colorado statutes require compensation to landowners for agricultural property damage by big game animals, CDOW personnel spend considerable time and effort preventing, investigating, and evaluating a variety of damage problems each year.

Numerous preventative measures are available to minimize this conflict, including steps that can be taken before the damage occurs. These include crop alternatives, lure crops, and changes in planting and harvesting techniques. Other options include steps that can be taken after the damage has started, including frightening devices, repellents, trapping, and hunting season modifications. In addition, habitat enhancement efforts can entice elk and deer away from ornamental plantings and agricultural crops.

3.2 BLACK BEAR

Most conflicts between bears and people are linked to careless handling of food and/or garbage. Black bears are opportunistic omnivores and they will eat almost anything, including human food, garbage, bird food, and pet and livestock food when available. Once a bear has found the easily accessible, consistent food source that human settlements can offer, it may overcome its natural wariness of people and visit regularly, increasing the chance of a human/bear encounter.

3.3 GREAT BLUE HERON

A Great Blue Heron rookery exists across Walton Creek on an adjacent parcel of land near the southwest corner of AMR (Figure 3). The CDOW recommends a 500 meter (1,640 feet) buffer zone around nest colonies. All homesites and amenities at AMR have been located outside of this buffer zone.

Heron are generally unpredictable in their response to disturbance in close proximity to a colony. The effects of human disturbance on a colony vary in response to a number of factors, the most important of which include the timing of the disturbance in relation to critical periods of the nesting season and the degree to which the birds are habituated to human activities in or near nesting areas.

The rookery is located less than 1000 feet from Highway 40 and 3 occupied residences. One of the residences is located within 500 feet of the rookery. RCR 24 is located within 500 feet of the rookery. As a consequence of the ongoing activities associated with these facilities, it is apparent that the herons of this particular colony have habituated to the existing human activity near their rookery.

Dense willow cover adjacent to both banks of Walton Creek forms a visual buffer for recreational activities along the creek, which itself forms a physical barrier to disturbance originating to the east on AMR. Consequently, neither the homesites, roads, infrastructure, nor amenities at AMR will likely pose a threat to the continued occupation and productivity of this rookery.

4. WILDLIFE MITIGATION OBJECTIVES:

The primary goal of this WMP is to minimize the impact of the development on all wildlife species endemic to the property. Specific, measurable objectives to reducing the impact include:

1. Provide for continued wildlife utilization of habitat values that currently exist on the property.
2. Limit human recreational disturbance to elk wintering on the property.
3. Maintain habitat connectedness with adjacent lands to the north and east.
4. Preserve riparian habitat, wetland habitat, elk winter and other seasonal range, and other wildlife habitats.
5. Improve upon the existing habitat conditions present in elk winter range.

6. Continue some historic agricultural use of the property; while simultaneously working to minimize agricultural/wildlife conflicts.
7. Minimize road and driveway construction impacts and subsequent habitat fragmentation/degradation by utilizing existing roads and disturbed areas and designing roads to fit into existing topography as much as possible.
8. Minimize the wildlife habitat impacts of homeowners' amenities that include a comprehensive trail system, fishing pond, horse barn, Owner's Lodge/Recreation Center, and a Ranch Manager's residence.
9. Minimize human/wildlife conflicts by implementing homeowner occupancy and use restrictions.

5. MITIGATION

A key element of the proposed development will be setting aside approximately 500 acres north of Priest Creek (Wildlife Preserve) and a large portion of the Pine Spring Gulch Basin (Upland Preserve) as open space/natural areas for wildlife. The Wildlife Preserve will be placed in a conservation easement. When considering the benefits to wildlife, larger areas that provide cover and forage are significantly better than small acreages.

To further mitigate the impacts of the development of AMR on elk, a two-phased approach will further enhance elk habitat. Phase I consists of on-site elk habitat treatments within the remainder parcels and within selected areas on other locations of the property including within developed lots.

Phase II consists of the establishment of a Trust to fund off-site habitat treatments to prescribed to improve elk habitat in the south Yampa Valley. Both the on-site and the off-site mitigation approaches are described in detail in the following sections.

5.1 IMPLEMENTATION OF MITIGATION PROJECTS

5.1.1 Wildlife Preserve Conservation Easement

To ensure the conservation value of the Wildlife Preserve is maintained in perpetuity, it shall be placed under a Conservation Easement within 24 months of execution of this agreement. The Conservation Easement document will identify consistent and prohibited uses of the preserve.

5.1.2 On-Site Mitigation

The Ranch Manager will be responsible for implementing all on-site wildlife mitigation measures (see Section 5.2). This will include habitat enhancement programs and other measures designed to benefit or protect wildlife. The Ranch Manager will submit an annual monitoring report to the CDOW and Routt County that documents all wildlife mitigation measures implemented each year. A monitoring form to be included with this report is provided in Appendix A of this document. Yearly reports for the preceding year are due no later than February 28 of the following year.

5.1.3 Off-Site Mitigation

To offset the impacts of the twenty (20) Contingency Lots, AMR has committed to funding an Alpine Mountain Ranch Elk Trust. The Trust Fund will cover the initial cost of offsite habitat improvement mitigation acreage as well as funding to sustain ongoing habitat improvement projects to benefit the Priest Creek/Walton Creek and Harrison Creek elk herds. Details of the trust fund are provided in Section 5.3.

A yearly monitoring report documenting all off-site treatments will be submitted to the CDOW and Routt County concurrently with the on-site mitigation report, using the same Monitoring Form presented in Appendix A. Yearly reports for the preceding year are due no later than February 28 of the following year.

5.2 ON-SITE HABITAT ENHANCEMENT

To compensate for elk winter habitat lost directly to development, habitat enhancement programs will be implemented on remainder parcels and on portions of some lots as well (Figure 4). During 11 years of studies, elk were observed throughout the winter in the areas on the property where habitat conditions are somewhat poor and in a declining condition (see Section 2). Much of the oakbrush, serviceberry and aspen are in a mature or over-mature condition. Such stands are not as productive or accessible for browsing or grazing wildlife during the winter. Subsequently, treatments should be implemented. By improving habitat conditions on large portions of the property, carrying capacity for elk and other wildlife will likely increase to a level which will, to a large degree, offset some of the physical impacts from the proposed development. By reversing this trend, both in the large areas, and to a lesser degree on the lots, the area will be capable of supporting most species of wildlife found in the area in numbers that may be comparable to pre-disturbance conditions.

Habitat improvement for wintering elk will also benefit cow elk with calves from spring through fall. Improved forage that is high in protein is beneficial to the cows and the calves, which allows them to go into the winter in better condition. In the spring, cows will benefit from the improved forage conditions both pre and post parturition (Section 3.1.2 describes elk calving habitat).

Habitat improvement for elk will also benefit mule deer, particularly does from the spring transition period, prior to fawning, through fall when they leave the area and move to winter range. In addition, improved forage results in bigger and stronger fawns better able to survive winter and the does go into winter in better condition as well.

5.2.1.1 Remainder Parcels

(a) Mountain Shrub Treatments

Mechanical treatments (brush hog, rotoclear, hydroaxe, chainsaw, etc) or fire (on a very limited basis) will be used to remove decadent shrubs that provide little forage and in many cases are out of reach of calves during the winter (see Section 2.3). Ideally, these methods will foster prolific re-sprouting from oak roots, enhancing the nutrient content of the forage resource and increasing the quantity of forage available to wintering elk. The vigorous regenerated stands will benefit a broad variety of other wildlife in addition to elk.

Mechanical treatment of mountain shrub stands north of Priest Creek will occur over a 4-10 year period. These areas are shown in brown on Figure 4. When treated areas have responded (usually in 2-4 years), other areas will be treated. Over time, the phased approach will provide a mosaic of different age classes and vegetative structure that will foster an increased abundance and diversity of wildlife on the property.

(b) Sagebrush Treatments

Vegetation treatment on the sagebrush dominated flat north of Priest Creek (area shown in blue on Figure 4) will occur during the initial 2 years of the project. This area will be treated using a combination mechanical treatment and fire. Burning will be conducted in the fall and the area broadcast seeded with a combination of native grasses and forbs to supplement those species that will become established following the treatment. The seed mix will be determined prior to implementation of the burn, based on existing vegetation and will be pre-approved by the CDOW.

(c) Conifer Treatments

Removal of insect infested lodgepole pine and fir in the Priest and Pine Spring Gulch drainages will open up the forest floor to sunlight. Subsequently, grasses, forbs and shrubs should become established in these areas, increasing wildlife density and diversity in these areas. Areas where thinning will occur are shown in green on Figure 4. As can be noted, selective thinning is proposed for areas both on and off the lots.

Like the mountain shrub areas that will be treated, selective thinning in conifer stands will eliminate the need for supplemental planting of trees and other vegetation. Thus, all vegetation in these areas will be native species. Portions of these same conifer stands were thinned a few years ago and, as understory vegetation (grasses, forbs, shrubs and aspen) became established,

data showed there was an increase in use by big game, neotropical birds and other wildlife. All of this occurred without any supplemental revegetation efforts. In the unlikely event that natural re-vegetation does not satisfactorily occur, the area will be broadcast seeded with a combination of native grasses and forbs to supplement those species that have become established following the treatment. The seed mix will be based on existing vegetation and will be pre-approved by the CDOW.

Thinning of the conifer stands will occur during initial 2 years of development activities. This will result in the understory becoming developed and providing habitat for more species of wildlife prior to initial housing construction.

5.2.1.2 Within Lot Treatments

Within those residential lots that are located in areas known to be used by elk, limited decadent shrub removal will be implemented. Mechanical brush treatment on lots will occur during the initial 2 years of development activities. The Developer will include a clause in the contract documents to initiate wildlife habitat treatments implemented by the Developer in 2006 or 2007, prior to home construction. Typically, only a few shrubs will be removed at any one time to ensure that screening/cover will be retained onsite. In subsequent years, property owners will be asked to conduct additional mechanical vegetation treatments on their properties to benefit wildlife. Subsequent treatments will be implemented once regeneration has become established after previous treatments. The Ranch Manager, in cooperation with the Homeowners Association (HOA), will be responsible for ensuring that future treatments are requested of homeowners and such treatments are done appropriately.

Mechanically treated areas will not require supplemental plantings and will foster the retention of native vegetation. Over time large acreages will have younger, more vigorous shrub stands that will be more accessible and provide more productive and nutritious forage for wintering elk.

This treatment will result in the creation of a mosaic of size and age classes. Such a mosaic will enhance forage production and at the same time retain cover for wildlife and visual buffers between dwellings.

5.2.1.3 Treatment Schedule

A treatment schedule is included in Table 2. Treatments will be implemented over a number of years. After vegetation has become reestablished on a treated area, another site will be treated. It is expected that the first area in the Wildlife Preserve to be treated will be the large sagebrush flat just north of Priest Creek. This area will be treated using a combination of mechanical treatment and fire.

Table 2. Alpine Mountain Ranch. Wildlife Habitat Treatment Implementation Schedule.										
Cover Type	Treatment Unit	Size (ac)	Treatment Method	Implementation Year¹						
				2006	2007	2008	2009	2010	2011	2012
Mountain Shrub	1	8.09	Mechanical	Blue						
	2	13.16	Mechanical						Blue	
	3	13.01	Mechanical				Blue			
	4	6.56	Mechanical							
	5	21.02	Mechanical							
	6	21.91	Mechanical						Blue	
	7	12.15	Mechanical	Blue						
	Lots	84.15	Thin (saw)	Blue			Blue		Blue	Blue
Subtotal				180.05						
Sagebrush	8	27.84	Prescr. Fire	Blue						
	9	1.27	Mechanical				Blue			
	Subtotal	29.11								
Conifer	10	18.30	Thin (saw)		Blue					
	11	10.17	Thin (saw)							
	12	6.30	Thin (saw)							
	13	14.75	Thin (saw)							
	14	4.60	Thin (saw)		Blue					
	Subtotal	54.12								
¹ Blue shade is the year the project would be implemented.										

One of the oakbrush/serviceberry areas in the drainage can be mechanically treated at the same time. Additional treatments will be implemented in subsequent years. The resulting mosaic of different age classes of vegetation will provide improved forage and cover conditions for deer, elk, and other wildlife.

5.3 OFF-SITE MITIGATION TRUST

AMR has developed a unique long-term mitigation solution to offset the impacts of twenty (20) Contingency Lots, which AMR is permitted under Routt County's *Non-Contiguous Remainder Parcel* pilot program.

AMR will commit to funding an Alpine Mountain Ranch Elk Trust Fund (AMRETF) at the rate of \$15,000 per lot at the time of closing on the sale of each Contingency Lot. The Trust Fund would be memorialized in a trust document that will be written by a qualified law firm at AMR expense. The purpose of the AMRETF is to improve elk habitat for the Mt. Werner, Priest Creek, Walton Creek and/or Harrison Creek elk herd(s) (see Figure 5 for a graphical depiction of the action area).

These funds will be invested according to investment policy established by the AMRETF. The Trust Fund will be governed by a Board made up of two representatives from AMR, two from CDOW and one from the Yampa Valley Land Trust (YVLT) and subject to the organizational requirements of the YVLT. The Board will approve each habitat improvement project within the guidelines established in the AMR Wildlife Mitigation Plan. The Board will meet periodically to review projects presented by the CDOW, the AMR Ranch Manager, or other interested parties for funding. Projects will be coordinated by the AMR Ranch Manager. Guidelines for the expenditure of funds for habitat improvement include the following:

1. Projects must be physically located in the identified Mitigation Area (Figure 5). However, the Board may occasionally approve projects outside the Mitigation Area if no suitable projects within the Mitigation Area are foreseen in the next five years. The east boundary of the identified Mitigation Area would only include land that is suitable and accessible by machinery for winter elk habitat.
2. Habitat improvement must be principally for the benefit of the Mt. Werner, Priest Creek, Walton Creek and/or Harrison Creek Elk Herd(s).

The Trust Fund will cover the initial cost of the agreed-upon offsite habitat improvement mitigation acreage as well as funding to sustain the improved habitat for future generations. Approximately two thirds of the proceeds will be used for the initial mitigation and the remainder will be invested for future habitat improvement projects within the approved Mitigation Area.

Initial mitigation would be required to be completed in Phases with Phase I being completed within 24 months of the sale of the seventh Contingency Lot, Phase II at the sale of the fourteenth lot and the final Phase at the sale of the last Contingency Lot. It is anticipated that approximately 42.5 acres of habitat improvement will be achieved for each Contingency Lot sold. Ideally, projects will be completed using Trust Funds as well as partnership funds, when available, from other organizations such as the Rocky Mountain Elk Foundation, USFS, and CDOW.

Investment management of the fund will be turned over to a professional investment management firm to be approved by the Board. Funds would be managed in accordance with investment criteria established by the Board. These funds will remain segregated, despite being managed by the same investment manager who manages funds for the YVLT. Fees for such management would be paid out of fund earnings.

5.4 COTTONWOOD/WILLOW RIPARIAN MANAGEMENT

Management of the riparian areas will include removal of dying cottonwoods and the planting of cottonwood and willow cuttings. Willow cuttings will be planted around the pond adjacent to the Owners Lodge and will ultimately provide cover to species of wildlife typically found in

these habitats. Furthermore, these areas will be fenced (until successful regeneration has been assured) to keep out livestock that may be pastured in the area. Nuisance beaver that may utilize the pond will be controlled by AMR to prevent damage to cuttings and facilitate plant growth. Trapping and removal will comply with CDOW regulations, and beaver will not be relocated without an approved permit from the CDOW.

As this new vegetation becomes established there is expected to be an increased density and diversity of bird species along the drainages. Regeneration success will be monitored yearly until success can be demonstrated. Success criteria would include 3 years' survival of 50% of the willow and cottonwood seedlings. The Ranch Manager will include reports on this effort within the annual report submitted to the CDOW and Routt County.

5.5 FISHERY MANAGEMENT

Any and all fish, amphibian, crustacean, and invertebrate species to be stocked in the pond or in Walton Creek for fisheries enhancement or other purposes will require prior CDOW approval. Furthermore, any inlet(s) or outlet(s) to the pond must be adequately screened to prevent ingress and egress of northern pike.

5.6 NOXIOUS WEED MANAGEMENT

Noxious weeds, including Hoary cress (Whitetop, *Cardaria draba*), Canada thistle (*Cirsium arvense*), musk thistle (*Carduus nutans*), and houndstongue (*Cynoglossum officinale*) are present in light to heavy densities at numerous locations throughout AMR. These weeds and other weeds negatively impact habitat productivity and can reduce the habitat quality for wildlife.

An Integrated Weed Management plan will be implemented on the AMR property to integrate control techniques into a well-planned, coordinated program to reduce the impact of these and other weeds on the property. The objectives of weed control and prevention within the AMR property include:

1. Prevention of further weed encroachment into uninfested portions of the permit area,
2. Detection and eradication of new introductions,
3. Containment and control of current infestations,
4. Site-specific revegetation in areas as necessary.

Appropriate herbicides will be applied to identified weed infestations once per year. Following initial application, any re-sprouting weeds will be cut or, where accessible, mowed aggressively throughout the remainder of the growing season to assist in depleting the root reserves and avoid flowering and seed production. Treatments of this type are expected to take a minimum of 5 years to completely eradicate weeds from small infestations, longer for larger infestations. Herbicides will not be applied near standing water, unless specifically intended for such use. Herbicides will only be applied under the direction of a certified pesticide applicator.

Revegetation of infested areas may be required to eradicate weeds in areas that do not support an understory of desirable species that could re-occupy the site after weeds are controlled. Such areas include piles of soil that are heavily infested, and sites that have been heavily disturbed. Species to be used in re-vegetation efforts will be dependent on adjacent vegetation. Typically, species native to the area will be used for this purpose. Exceptions would include sites dominated by introduced pasture grasses.

Eradication of weed infestations requires continual monitoring and evaluation to ensure successful removal of all reproductive organs of the weed. Infested sites will be treated on an annual basis until no weeds are found. Sites will be subsequently monitored for a period of 3 years following eradication of weeds to assess the success of control measures. Should noxious weeds be subsequently discovered anywhere on AMR, appropriate eradication measures will be re-instated.

5.7 BUILDING ENVELOPES

The AMR Land Plan has been designed to minimize impacts to the heaviest utilized portions of elk winter range, as determined by Monarch & Associates' 11-year study. Residential development will be clustered basically into three development pods. The total number of lots will be 63. Building envelopes are designated within each lot, will average 0.4 acre in size, and will not include a barn or pasture. At least 60% of each lot will remain undisturbed. No vegetation removal will be permitted outside of the designated building envelopes except for a driveway to access the residence. Exceptions to this may include removal of dead or diseased trees and shrubs, or defensible space measures. However, as previously described in Section 5.2.1.2, habitat enhancement will be allowed within lots and outside of building envelopes.

5.8 LANDSCAPING AND RECLAMATION

Wildlife habitat disturbed by construction activities outside of the designated building envelopes will be reseeded or replanted with plant species native to the area. The seed mix to be used will be determined based on the site-specific nature of the project area and will be pre-approved by the CDOW. Roadsides will also be replanted with native plants unpalatable to elk and deer in order to avoid and/or reduce wildlife/automobile collisions.

Homeowners will be encouraged to landscape with native plant species within the building envelopes and along driveways. A list of recommended native plants for use in landscaping will be provided to each homeowner in the Design Guidelines. The Design Guidelines will stipulate that only the listed species will be used in disturbed areas. In areas within the lots where oakbrush will be removed to stimulate regeneration, no supplemental planting will occur. Native plant species may be planted elsewhere outside of the building envelopes. Specific guidelines for landscaping in occupied wildlife habitat will be included as part of comprehensive homeowner's brochure delivered at closing by the Developer.

Residents will be informed that they have moved into wildlife habitat and that species such as elk, deer, porcupines, and moose may eat what the homeowners plant.

5.9 FENCING

Fencing shall be restricted so as not to limit terrestrial wildlife movements. Fencing approval will be under the purview of a Design Review Board. There shall be no fencing of lot perimeters. Fencing around the meadow for agricultural/ranching purposes shall be allowed. Any new fence constructed for agricultural purposes shall be high tensile and designed to allow passage of deer and elk. Wire spacing will be 16", 22", 28", and 40" from the ground. Fencing around homesites (except if intended to protect flower or vegetable gardens from big game) shall be of an open rail type, no higher than 60 inches, and limited to the building envelope.

5.10 LIVESTOCK

5.10.1 Wildlife-Livestock Conflicts

Wildlife-human conflicts often arise when hungry wildlife gain access to stored livestock forage. Homeowners will not be permitted to graze, board, or keep livestock on their lots, including, but not limited to horses.

Hay will be stored in a wildlife resistant enclosure designed to CDOW specifications. In addition, horse feed such as oats, grain or other "horse candy" will be stored in bear-proof containers.

5.10.2 Permittee Game Damage Compensation

The HOA will create a fund that will be used to reimburse agricultural lessees for game damage. This damage will usually be in the winter resulting from elk getting into haystacks or competing with livestock for hay on the feed trails. At a minimum, the rancher will be reimbursed for game damages, including but not limited to hay loss and fence damages in a manner comparable to the CDOW game damage compensation program. This fund is necessary because AMR shall indemnify the CDOW from any and all future damage claims. In addition, part of the LPS component to AMR is maintaining an agricultural component to the property. The establishment of this fund will help ensure the long-term viability of agricultural operations on AMR.

5.10.3 Livestock Grazing

Livestock grazing on the property will be limited to the hay meadow. In some instances, grazing may be permitted within individual lots for weed control or similar beneficial land management objectives. This will allow grasses and forbs that were overgrazed in the past to become well established, providing more habitat for wildlife. Grazing will be eliminated and habitat improved in riparian habitat along Walton and Pine Spring Gulch drainages. Livestock grazing will not be

allowed on the Wildlife Preserve or the Upland Preserve without prior approval from the CDOW.

5.11 ACCESS AND USE RESTRICTIONS

AMR is private property. Only owners, their guests and other parties authorized by the Developer, Routt County, or the CDOW and approved by the Developer will be permitted on the property.

Recreational snowmobiling and all other means of motorized travel (unless required for ranch and/or subdivision management purposes) will be prohibited throughout the AMR property except on the Pine Springs Road Easement and then only for adjoining property owners to the east over which AMR has no control. Hiking, mountain biking snowshoeing, and cross-country skiing will be restricted to designated routes or areas, and in some cases, to designated seasons (see below).

Recreational use of some sensitive areas at AMR will likely reduce or eliminate their suitability as wildlife habitat. The areas of highest concern are the elk winter range and calving areas. To prevent such disturbance, potentially intrusive activities, such as cross-country skiing, snowshoeing, hiking, or mountain biking, will be prohibited in these areas during certain times of the year (refer to Figure 6 and to Sections 5.11.1.1 and 5.11.1.2).

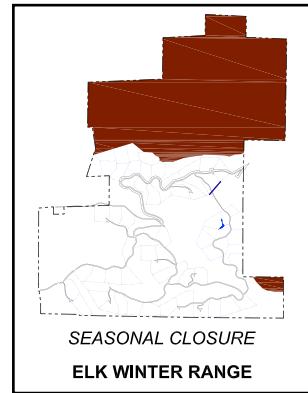
Kiosks will be erected at trail entry points (see conceptual example in figure to the right). In addition to maps posted showing areas with seasonal closures to protect elk, there will also be information on bear, mountain lions and other species that are present on the property and may be encountered by trail users.



5.11.1.1 Elk Wintering Areas

Recreational access will be prohibited in the Wildlife Preserve north of Priest Creek and along southeast portions of the Routt National Forest boundary in Pine Spring Gulch drainage from December 1 through April 30 each year, as displayed in the figure to the right of this paragraph and in Figure 6. This restriction is to protect elk wintering habitat. Excepted activities are limited to projects authorized by Routt County and the CDOW. Property owners will be informed and signs describing this seasonal closure will be placed along entry points.

Additionally, the north edge of the property that adjoins the Whistler Subdivision will be signed restricting access from that point.



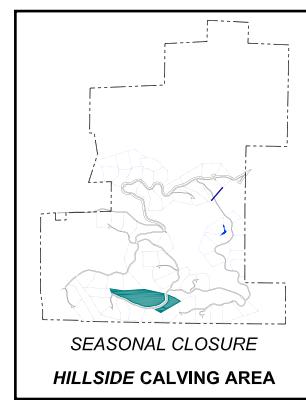
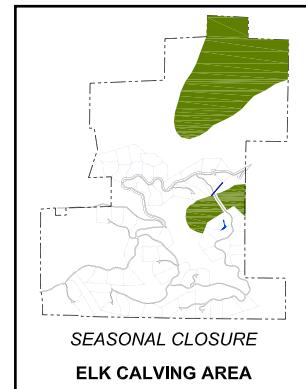
5.11.1.2 Elk Calving Areas

Recreational access will be prohibited during the calving and fawning period (May 1 through June 30) north of Priest Creek within the Wildlife Preserve area and those portions of the property east of the National Forest boundary in Pine Spring Gulch basin. The calving closure areas are displayed in the figure to the right of this paragraph and in Figure 6.

Similarly, the hillside above the hay meadow will also be closed to recreational access during the same time period to protect elk calving habitat.

Property owners will be informed and signs describing this seasonal closure will be placed along entry points. The same access from the Whistler Subdivision will also be signed restricting use during this period. These signs will explain the importance of secure winter and calving range on the property behind the sign.

Should elk use patterns during calving season change in the future, these access and use restrictions may be modified in consultation with CDOW.



5.12 PET CONTROL RESTRICTIONS

Uncontrolled pets are a significant source of wildlife disturbance and mortality in human-occupied wildlife habitats. Dogs have the ability to harass and kill wildlife, including big game, and domestic cats are a significant source of mortality for songbirds. The potential negative impacts from this type of disturbance (particularly from dogs) increases in severity in winter range and calving areas (see Sections 3.1.1 & 3.1.2). It is during winter and calving season that elk are most vulnerable to harassment. Thus, dogs and cats at AMR will be controlled by their owners and will not be allowed to roam free.

Residents will be prohibited from harboring dogs on their property unless they have secure containment facilities, such as a dog run, invisible fence, or kennel. Enclosed runs and/or invisible fences must be located immediately adjacent to the home and within the building envelope. Dog runs shall not exceed 500 square feet. Invisible fence shall not exceed the limits of the building envelope. If facilities are inadequate to contain the resident dog(s) then the animals will be immediately removed from the property until adequate structures can be built.

Homeowners will be required to control their pets at all times. Outside of the individual homeowner's property boundary, dogs must be on a leash. Visitors should not be encouraged to bring dogs on-site. Guests of homeowners shall comply with all dog control measures.

Contractors and subcontractors shall be prohibited from bringing dogs into AMR, even if the dogs are kept inside vehicles. Service dogs are not restricted. Violation of this dog policy shall result in the immediate eviction of the dog and the dog's owner or representative from the property.

Homeowners will be prohibited from feeding dogs and other pets outside their homes, including decks and similar enclosures, to avoid attracting nuisance wildlife or predators.

AMR property owners will be educated regarding AMR pet policy. The HOA shall be responsible for enforcing dog and pet covenants. Routt County and the CDOW may also control stray dogs and cats. Homeowners not in compliance with these pet restrictions will be responsible for any and all costs incurred by the HOA, Routt County, and/or the CDOW while enforcing these provisions. Should the HOA knowingly fail to enforce these pet control restrictions, Routt County and/or the CDOW may enforce the dog covenants and recover any and all costs incurred.

5.13 NUISANCE WILDLIFE AND PREDATORS

The potential for wildlife-human conflicts always increases when humans move into occupied wildlife habitats. Techniques designed to minimize elk-human conflicts include landscaping with native vegetation and recreational restrictions. In addition to elk, the AMR development includes significant parcels of woodlands and mountain shrub currently inhabited by black bears, coyotes, and mountain lions. Black bears are ecologically adaptable omnivores attracted to a wide array of food sources. Nevertheless, black bears are not likely to become a problem if potential food sources, especially garbage, are kept secure and inaccessible. Coyotes are also attracted to garbage, and may attack pets on occasion. While mountain lions typically avoid residential areas, they are attracted to big game wintering habitat, and may enter nearby residential areas. In addition, lions also occasionally prey on smaller animals such as raccoons that frequently are found in residential areas, and on occasion, lions attracted to residential areas have attacked pets.

Eliminating the factors that attract wildlife and educating residents are the two most effective strategies for minimizing wildlife-human conflicts. The following mitigation measures are designed to minimize wildlife-human conflicts:

1. There shall be no outside storage of any trash or garbage, no matter how briefly (e.g., overnight), anywhere within AMR, unless it is contained within individual bear-proof containers that meet North American Bear Society, CDOW, or U.S. National Park Service specifications.

2. Prior to disposal, any refuse that might attract bears or other wildlife shall be kept within the garage in a suitable receptacle with a tight-fitting lid. Refuse shall not be kept within detached garages or sheds, which are typically not bear-proof structures. Trash containers shall be taken to collection points (e.g., the end of driveways) on the morning of collection, not the night before. Trash containers will be brought in prior to 7:00 pm the same day of pickup.
3. Dumps or underground refuse disposal sites will not be permitted within the development.
4. Household and garden waste can attract bears. Residents shall be prohibited from using a garden compost pile, unless the compost pile is bear-proof, meeting North American Bear Society, CDOW, or U.S. National Park Service specifications.
5. Pets shall not be fed outside. Bowls of pet food left on outside decks will attract bears and other wildlife, especially coyotes, skunks and raccoons. These smaller animals may inadvertently attract mountain lions.
6. With the exception of bird feeders, the feeding, baiting, salting, or other means of attracting wildlife to individual yards will be prohibited.
7. Residents will be educated by the HOA about the importance of removing bird feeders on a nightly basis, and will be required to remove feeders when the residence is not occupied for an extended period of time, including weekend trips. Feeder removal is especially critical with suet and hummingbird feeders.
8. Homeowners will be educated about bears, mountain lions, coyotes, moose, and other local wildlife via the CDOW's "Living with Wildlife" brochures. One copy of each brochure, along with this Wildlife Mitigation Plan and a recommended list of native plants for use in landscaping, will be provided to each homeowner at closing.

5.14 WILDLIFE MORTALITY ON LOCAL ROADS

Posted vehicle speeds on proposed roads within AMR will be slow enough to prevent most wildlife-automobile collisions. In addition, maintaining optimal site distances should increase visibility, thereby further reducing the likelihood of traffic accidents within the development. In the event of collisions, roadkill will not be disposed of on property within the proximity of residential developments as not to attract bears or other wildlife and within the provisions of Colorado State law.

5.15 HUNTING

Limited recreational hunting will be allowed on AMR. For safety reasons, hunting will only be allowed in the Wildlife Preserve north of Priest Creek. Furthermore, special management hunts will be allowed if it is determined by the CDOW that limited elk population control is necessary. In that situation, the CDOW in cooperation with AMR may issue a limited number of permits and oversee the hunting. All hunting activities will comply with CDOW regulations.

5.16 CDOW COOPERATIVE MANAGEMENT

AMR commits to work in cooperation with the CDOW to facilitate beneficial habitat and wildlife management.

5.17 COLORADO DIVISION OF WILDLIFE INDEMNIFICATION

AMR property owners and the HOA shall indemnify the CDOW from any and all future wildlife damage claims on the AMR property, including those claims brought by any agricultural lessees.

5.18 RESIDENT EDUCATION

Resident education is the key to a successful wildlife management plan to enhance the area for wildlife while providing a safe environment for residents. Residents will be educated by the HOA to appreciate wildlife and the existing vegetative community, which provides critical wildlife habitat, as well as techniques to minimize wildlife-human conflicts as described in Section 5.13.

6. AMENDMENT AND ENFORCEMENT

It is understood that this WMP will be recorded. Furthermore, this WMP shall not be amended without the written consent of the local CDOW District Wildlife Manager and Routt County Board of County Commissioners. No amendment shall require the approval of any owner except AMR. No Owner shall be deemed to be a third party beneficiary of this WMP, nor shall this WMP be enforceable by any Owner, except Alpine Mountain Ranches. If any conflict occurs between the Association Documents and this WMP, the more restrictive provision shall take precedent. This entire WMP, specifically those sections addressing dogs, fencing, garbage management, and noxious weed control can be enforced by AMR, the CDOW, or Routt County.

7. ENDORSEMENT

By its execution of this document, the CDOW hereby agrees that the wildlife impacts associated with AMR have been, and would be, addressed if this plan were implemented.

8. ASSIGNMENT

AMR may, from time to time, assign its rights and obligations under this WMP by an express assignment set forth in a recordable instrument to be recorded in the Routt County records to any person or entity acquiring an interest in the AMR property. CDOW and Routt County will be copied on any such assignments. From and after the date of such assignment, the assignee(s) shall succeed to all obligations arising prior to and after the date of this WMP. Any assignee(s) under this WMP may thereafter assign their rights and obligations under this WMP to other such assignee(s), subject to the terms and provisions herein by an express assignment set forth in an instrument in recordable form and recorded in the Routt County records.

9. SIGNATURE PAGE

For Alpine Mountain Ranch:

Andrew P. Daly

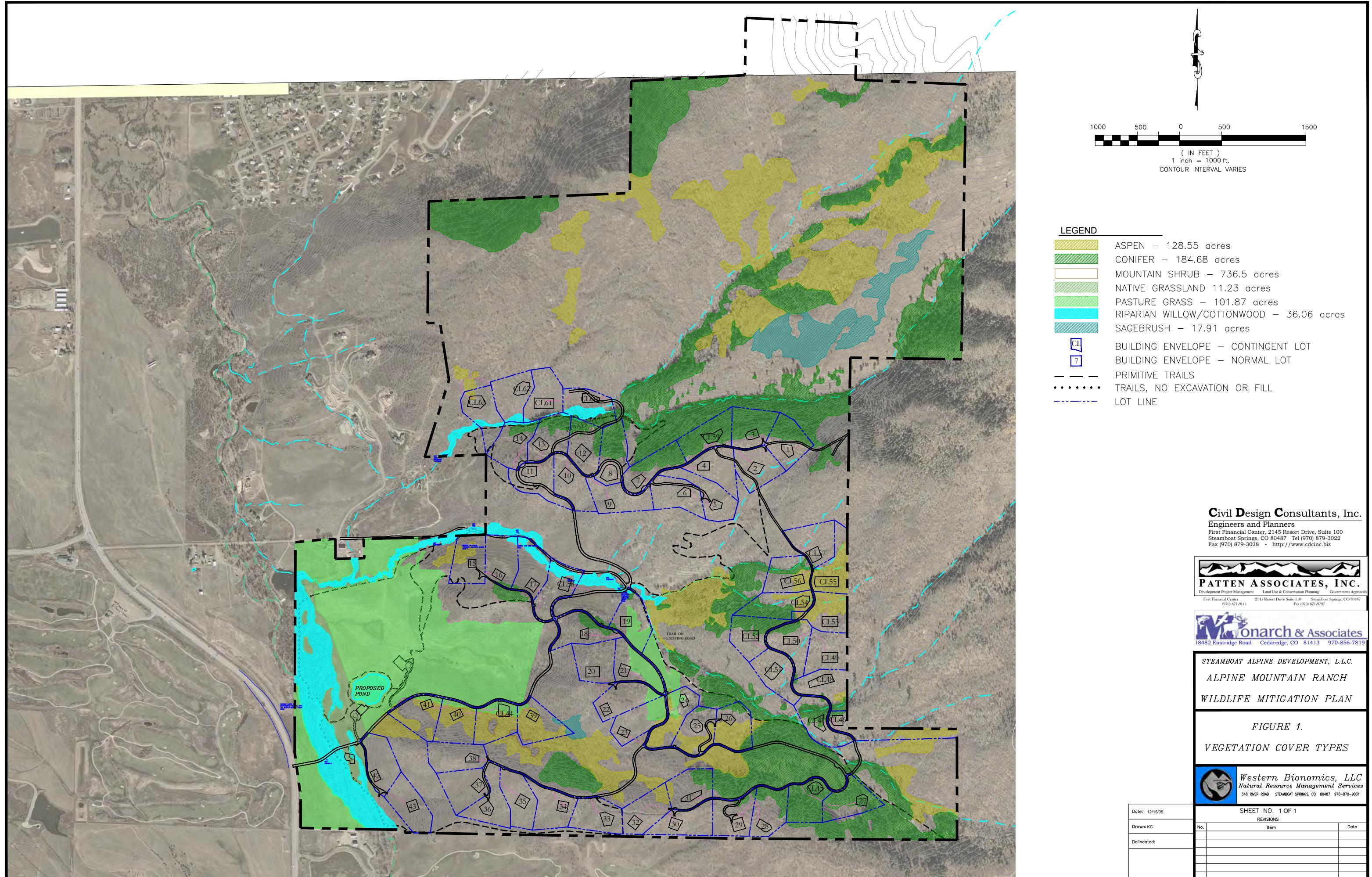
Accepted and agreed to this _____ day of _____, 2006.

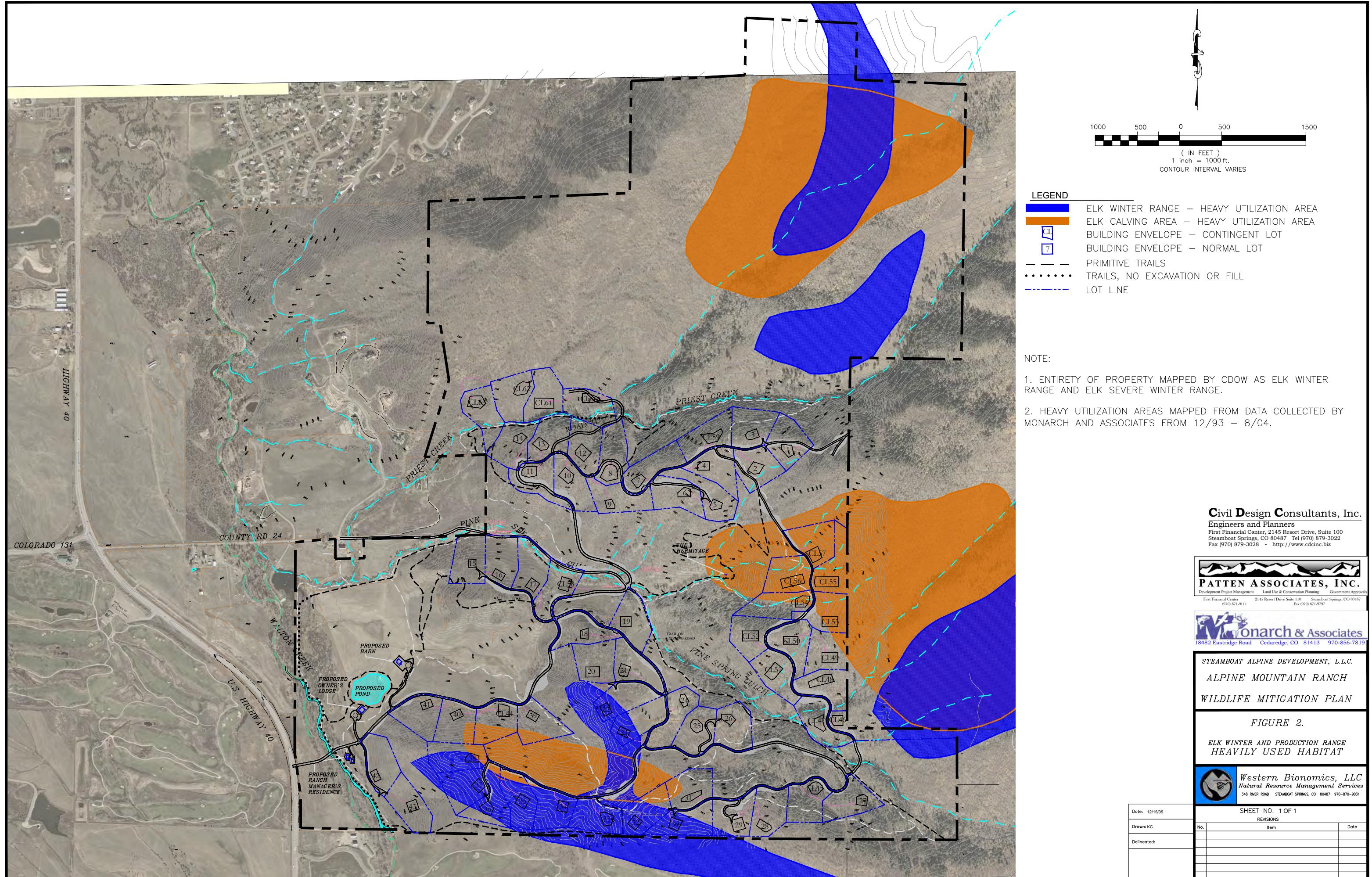
For Colorado Division of Wildlife:

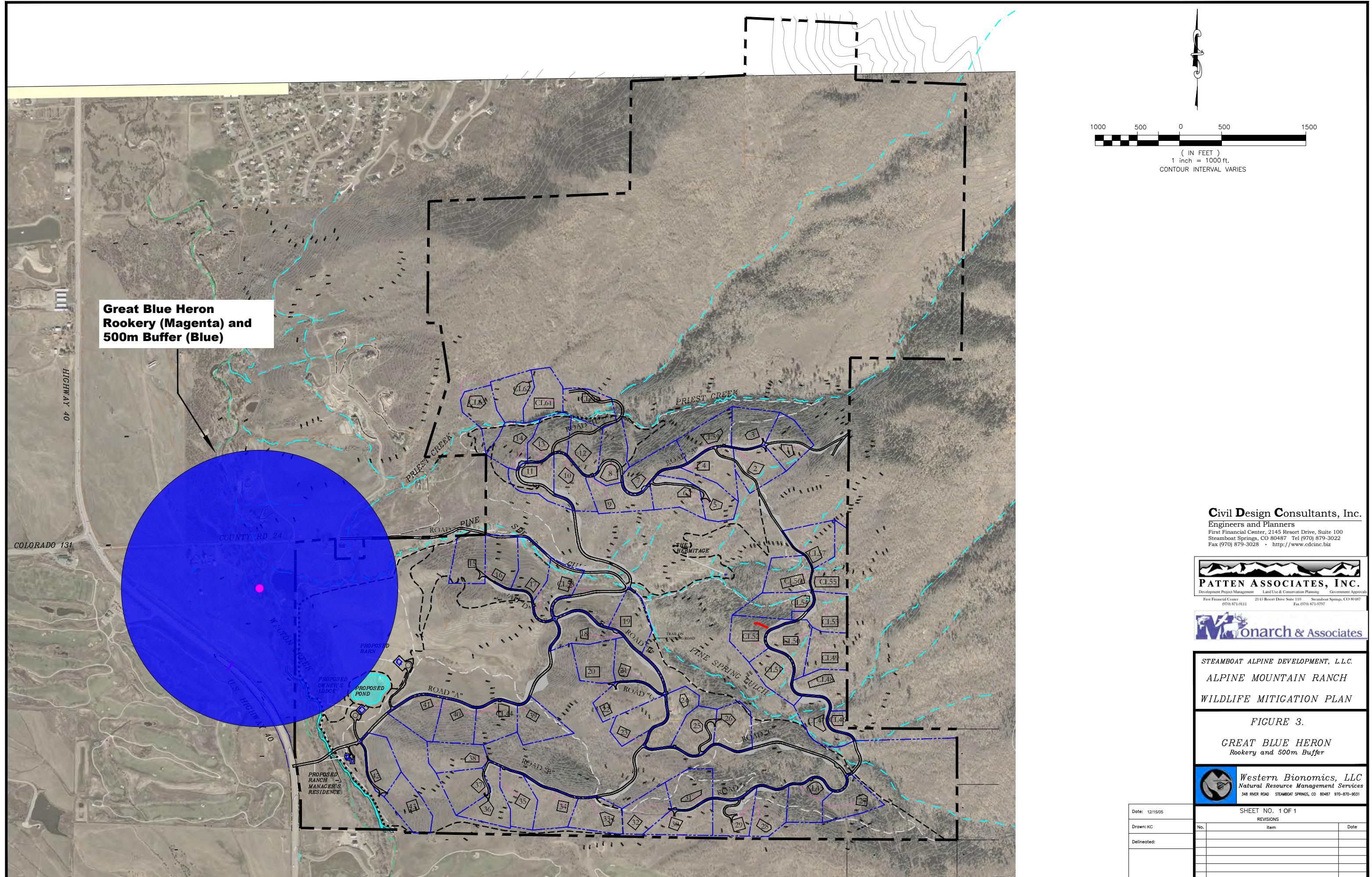
Susan M. Werner, Area Wildlife Manager

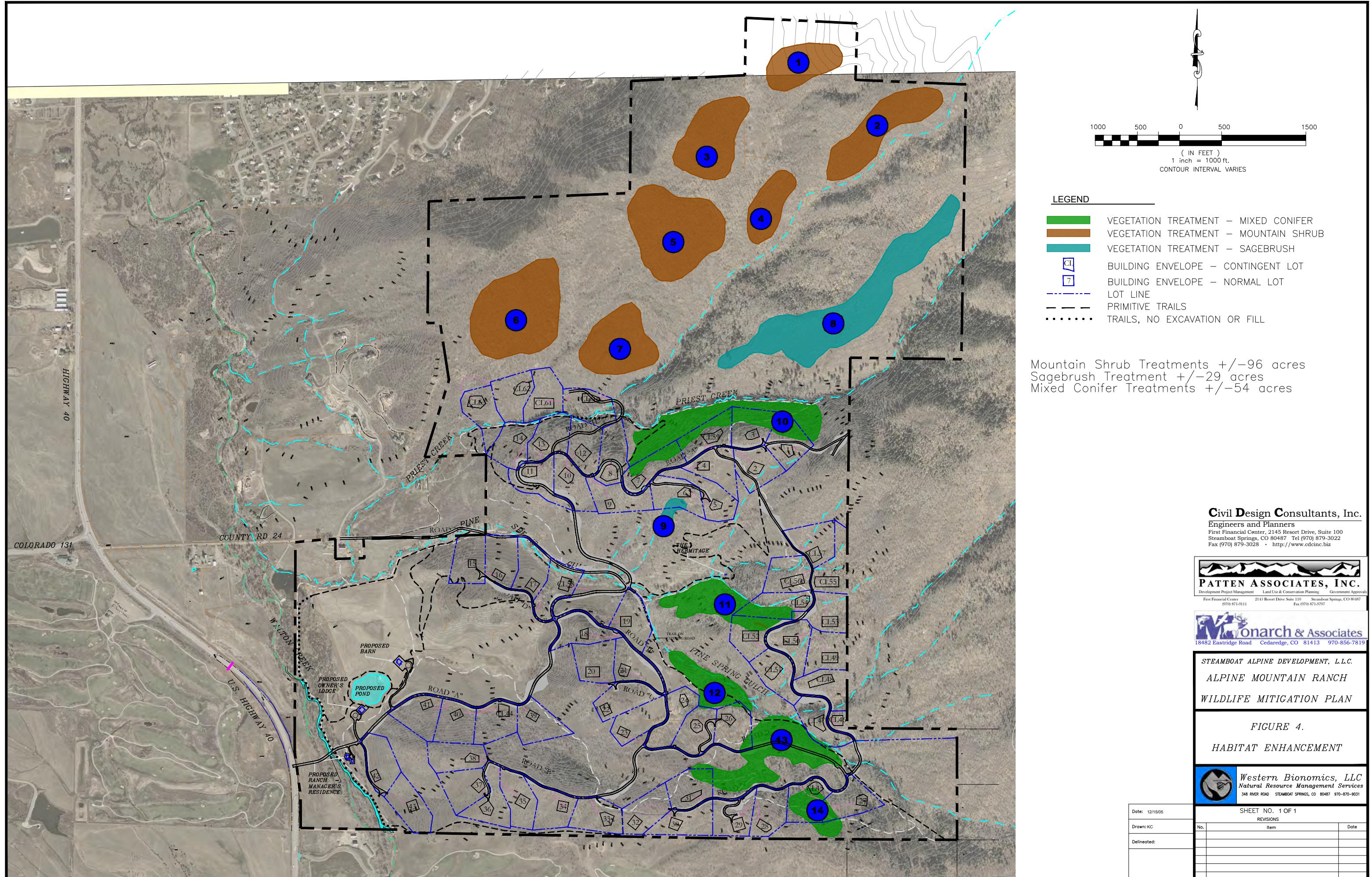
Accepted and agreed to this _____ day of _____, 2006.

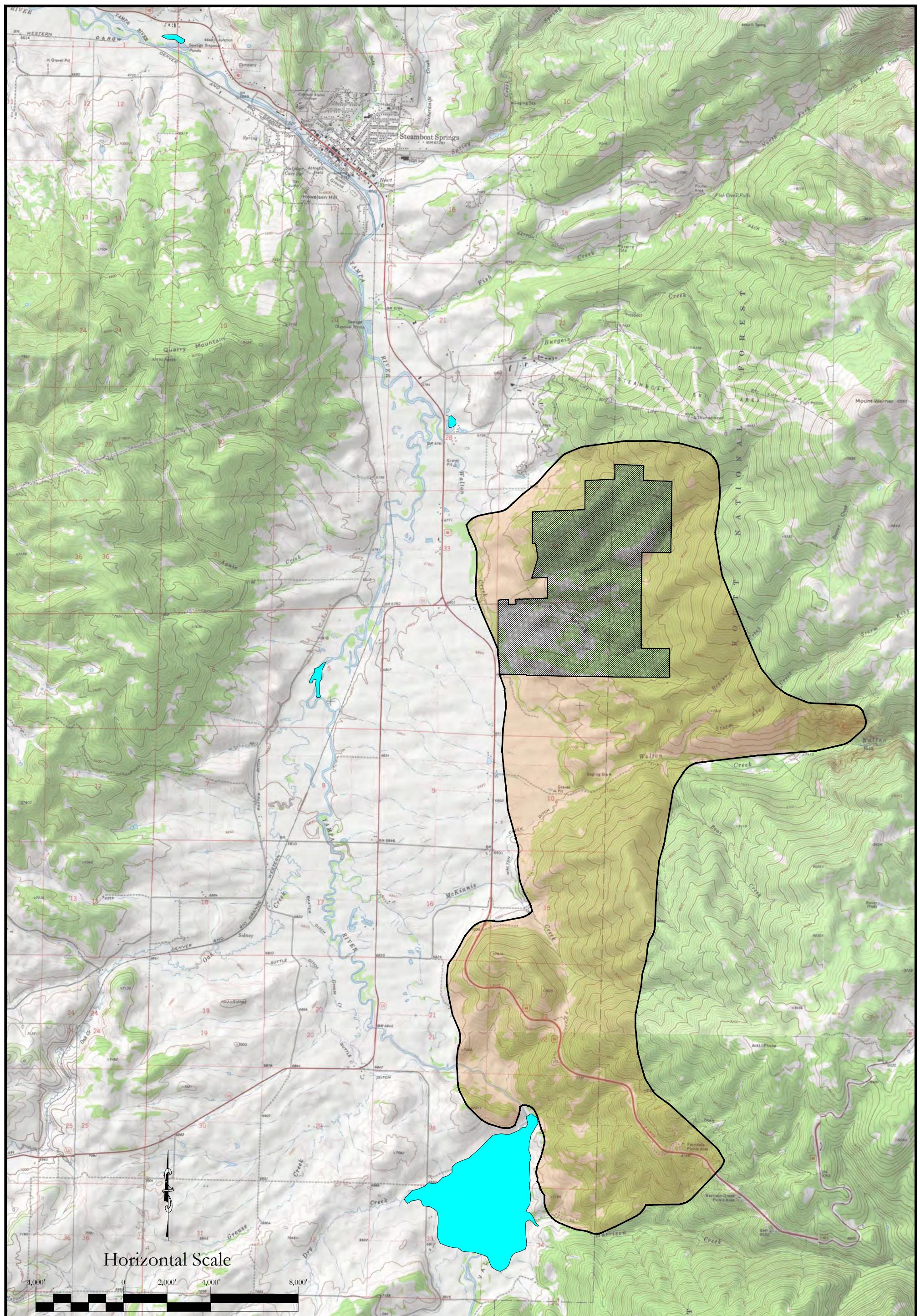
FIGURES











SHEET NO. 1 OF 1
REVISIONS

No.	Item	Date
	Date: 05/15/06	
	Drawn: KC	

©2006 Western Biomass LLC. All rights reserved.

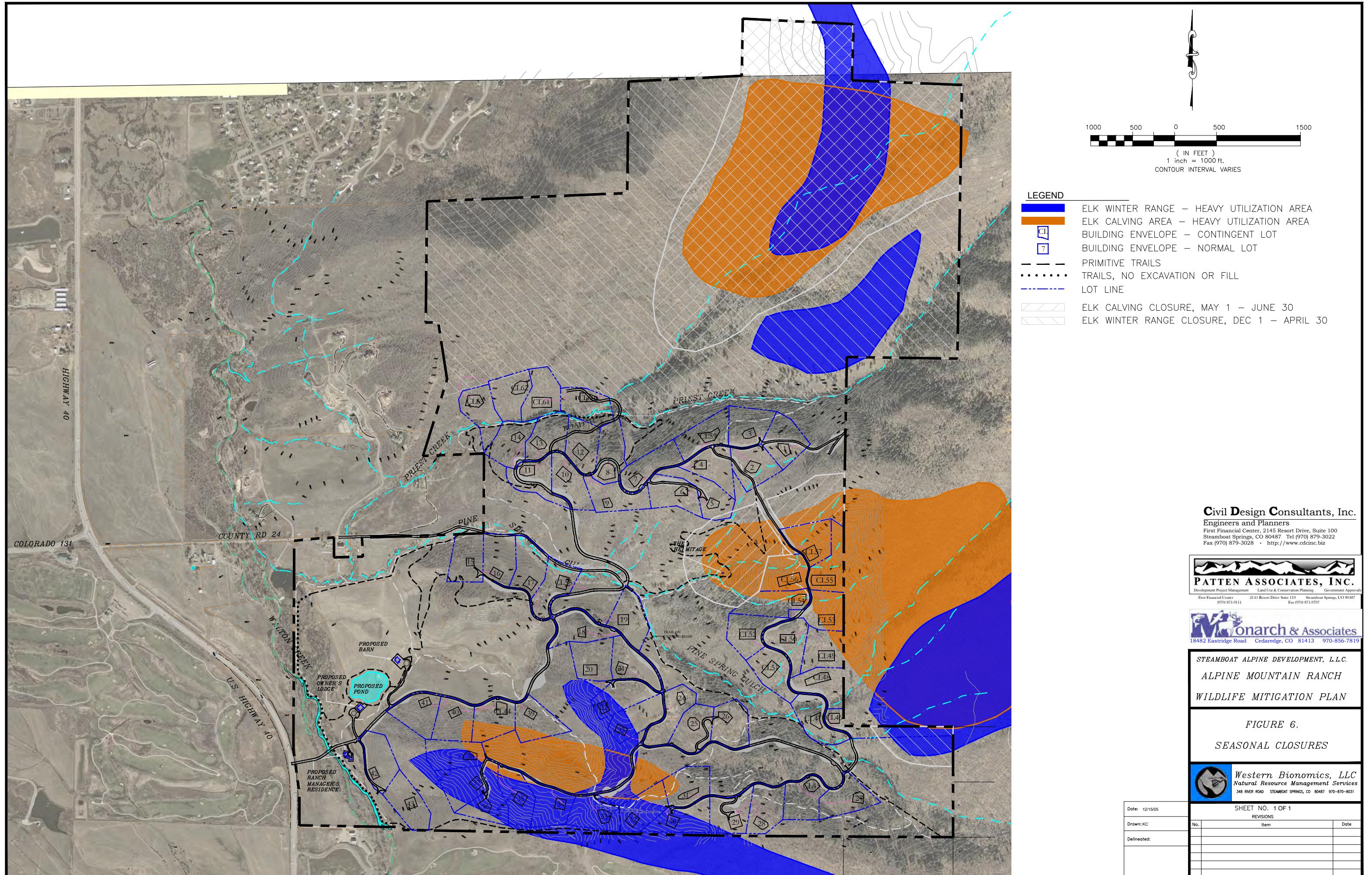
Western Biomass, LLC
Natural Resource Management Services
348 RIVER ROAD STEAMBOAT SPRINGS, CO 80487 970-870-9031

Delineated:

STEAMBOAT ALPINE DEVELOPMENT, L.L.C.
ALPINE MOUNTAIN RANCH
WILDLIFE MITIGATION PLAN

FIGURE 5.

OFF-SITE ELK WINTER RANGE
MITIGATION AREA



APPENDIX A – MONITORING FORM

Alpine Mountain Ranch

Wildlife Mitigation Plan Implementation Tracking Worksheet

Prior to initiating projects on the Alpine Mountain Ranch, those portions of the Wildlife Mitigation Plan pertaining to the project area will be reviewed. Apart from the specific guidelines outlined in the WMP, the general goals and management objectives outlined below should always be considered before project implementation:

- maintain or improve wildlife habitat
- facilitate acceptable movement corridors
- create or maintain healthy, diverse plant communities
- protect the soils resource from erosion/runoff
- reduce or minimize fire hazards
- reduce or minimize forest pathogens
- protect forest stands from windthrow
- control snow melt/runoff

Location	Activity Description	Date Accomplished	Initials	Monitoring Date	Initials

Annual reports will include all on-site and off-site mitigation measures initiated on AMR during the calendar year. Reports will be submitted annually to the CDOW and Routt County and reports for the preceding year are due no later than February 28 of the following year.