

U.S. Department of the Interior
Bureau of Land Management
White River 2/13/2004 Field Office
73544 Hwy 64
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2004-059-EA

CASEFILE/PROJECT NUMBER (optional):

PROJECT NAME: Common Burdock and Biennial Thistles, Cultural and Herbicide Control Program

LEGAL DESCRIPTION: White River Resource Area

APPLICANT: BLM

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action - Integrated weed control strategy: Under this alternative cultivation and herbicide control would be used to control Common Burdock *Arctium minus* and the Biennial Thistles; Plumeless (*Carduus acanthoides*), Musk (*Carduus nutans*), and Bull (*Cirsium vulgare*) Thistles. Throughout the rest of this document the individual thistles will be addressed as the biennial thistles. All control activities would be in compliance with the Record of Decision for "Vegetative Treatment on BLM Lands", in Thirteen Western States (BLM1991).

We are currently spraying less than 10 acres of biennial thistle per year and do not expect this acreage figure to increase given current control efforts.

Cultivation would be the primary control method on common burdock and biennial thistles infestations that are sparse and isolated. Cultivation would entail pulling of the weed out of the ground or severing the tap root below the basal rosette of leaves with a hand tool. If these plants have produced seed prior to treatment, the plants would be gathered following digging, and placed at a site on which seedlings can be controlled.

Herbicidal control would be used on large, dense weed patches of burdock and biennial thistles which are impractical to control by digging. Application would be by a combination of truck mounted sprayer, ATV sprayer, Solo backpack sprayer, and Buffalo turbine backpack sprayer. The method of herbicide application would be dependant on the size and location of the weeds to be treated.

All herbicidal control would be under a current Pesticide Use Proposal which specifies the area targeted, the chemical to be used, and sensitive areas.

All spraying will be under the control of a BLM Certified herbicide applicator.

Two chemicals are proposed for use, 2,4-D Low Vol/ Ester and Escort: These chemicals would be used separately as described below. Escort would be the preferred chemical for control.

The active ingredient of 2,4-D Ester is Isocotyl Ester of 2,4-D Dichlorophenoxy acetic acid at 88.8% and inert ingredients of 11.2%. This is equivalent to 58.9% 2,4-D or 5.6 lbs Acid equivalent per gallon. The application rate would be 1.5 lbs. AE/acre. The carrier will be water. Hilite dye will be used as needed to improve spray distribution. (Wyoming recommends: 2 lb. a.e./acre or 2 qt or (4EC) or 2.7 pt pf (6EC) 2,4-D/ acre.)

Escort would generally be used in areas where drift or runoff of 2,4-D into water sources is of concern. Escort would be used on areas where herbicide persistence is needed to prevent/decrease seedling establishment. Escort is produced by Dupont, with the common name of Metsulfuron methyl. The intended use rate would be 1 ozs. Active Ingredient per acre. The active ingredient would be mixed with a water carrier and non-ionic surfactant. Hilite dye will be used as needed to improve spray distribution.

BLM will prioritize areas for weed control. The areas most in need of control are those which have weeds on site and serve as a concentration point for livestock and wildlife. These areas will be highest in priority for treatment, and include; forks of canyons, corrals, areas adjacent to water, and bedding areas. The second areas of concern are along transportation routes such as pipelines, roads, trails or paths. All remaining areas with weed infestations will be lower priority.

Mitigation and Stipulations Associated with the Proposed Action Alternative:

Only federally registered herbicides would be used.

Label directions would be followed even when additional restrictions are required.

Herbicides would be applied as per label instructions and restrictions.

The intake operation of water for mixing would be arranged so that an air gap or reservoir would be placed between the live water intake and the mixing tank to prevent back flow or siphoning of chemical into the water source.

Chemical containers will be disposed of as required by the Environmental Protection Agency.

Any weed treatment within the following sensitive areas will be subject to interdisciplinary review as a supplement to this Environmental Assessment: Wilderness Areas, Wilderness Study Areas, Areas of Critical Environmental Concern, Riparian Areas, Threatened or Endangered

Species habitat, and important wildlife habitats. If the project area is located within a WSA or ACEC the proposal must be reviewed by the Wilderness/ACEC Specialist. Site specific mitigation would be incorporated into the Pesticide Use Proposal.

Affected riparian areas must be identified in site-specific Pesticide Use Proposal.

Areas sprayed with 2, 4-D should not be grazed for two weeks following spray application. There is no waiting period for Escort. Operators will coordinate with livestock permittees as to when livestock can safely use areas treated with 2,4-D.

All areas to be treated by mechanical, ground disturbing actions will be inventoried for cultural/historical and paleontological materials as appropriate. Inventory for paleontological resources would only be required if areas of exposed rock outcrops are within the cultivation treatment areas.

To minimize drift, application of all herbicides would be confined to periods when wind speed is less than 6 miles per hour. Application would not occur during precipitation, or if there is a threat of precipitation.

To further limit the potential for damaging stream habitats supporting a fisheries, application equipment and calibrations (i.e. spray pressure and droplet size) must be selected to deliver sprays which minimize atomized drift in situations where herbicide would be expected to directly contact surface waters (regardless of 6 mph guideline). No application of herbicide may occur in drainages and valley floors when rain showers are imminent or likely within 3-4 hours.

Efforts should be taken to avoid or minimize involvement and damage to woody riparian shrubs and tree regeneration, where appropriate, using mechanical control, minimizing the wetting of desirable plant foliage, or using less persistent herbicides beneath or within 25' of desirable plant canopies.

In the event raptor nest activity is discovered within treatment areas, restrictions on motorized application equipment and approach to the nest site would be applied until nest functions are complete. In addition, standard activity restrictions, outlined in Appendix B of the White River ROD/RMP would be observed until nest functions are complete: Vehicular access by the public on important wildlife habitats and/or during sensitive functional use periods (e.g., big game severe winter range, critical summer use areas, raptor nesting areas, sage grouse reproductive habitats) would be subject to restrictions as directed by the Area Manager. Use of restricted road segments by authorized personnel (e.g., BLM personnel, law enforcement, permitted land users) may be allowed for administrative and operational purposes. Methods used to restrict vehicular access may include: installing lockable gates, barricades or other forms of deterrents, signing, or reclaiming and abandoning roads or trails no longer necessary for management, or other methods prescribed by the Area Manager.

During preparation of the Pesticide Use Proposal, the project area would be reviewed for known populations of plant species of special concern or their potential habitats. On those areas containing sensitive plants and habitats with good likelihood of containing sensitive plants would

be avoided by herbicidal control. Manual control (pulling weeds) would be the preferred method of control. Potential habitats would be inventoried for absence of sensitive plants prior to any herbicidal use should manual control prove ineffective.

As a means of being able to validate control action to the U.S. Fish and Wildlife Service, the location, extent, and manner of application for all treatment areas should be documented and mapped using GPS technology and this information provided to BLM annually for review within the timeframe specified in the noxious weed section below.

Herbicide application on the White River's 100-year floodplain (i.e., endangered Colorado pikeminnow and other Colorado River fishes) or within 100 feet of floodplains of systems that are occupied by BLM sensitive species (see Threatened and Endangered Species section below) will require a separate NEPA analysis. Although label and BLM-imposed application measures are generally considered adequate to prevent any direct or indirect impact to these aquatic communities from spot treatments, site-specific review of proposed actions is necessary to make Endangered Species Act determinations.

The following buffer strips will be provided for streams and riparian areas that are not associated with a special status fishery (see Aquatic Wildlife section for list): a minimum buffer strip of 25 feet wide will be provided for vehicle spraying and 10 feet for hand application. Herbicides will be wiped on individual plants within 10 feet of water where application is critical.

In the event raptor nest activity is discovered within treatment areas, restrictions on motorized application equipment and approach to the nest site would be applied until nest functions are complete.

Safeguard Measures for the Proposed Action Alternative:

All individuals associated with the handling or application of herbicides on public lands would be familiar with the chemicals used and emergency procedures to be used in case of herbicide spill.

The safe use of herbicides includes precautionary measures to prevent accidental spills. The following written precautions describe measures that would be used to reduce the chance of such accidents.

The applicable Federal regulations concerning the storage and disposal of herbicides and herbicide containers would be followed. These are described in the EPA's "Regulations for acceptance and Procedures for Disposal and Storage", Federal Register notices as amended.

It is essential to prevent damage to containers so that leaks do not develop; care would be exercised so that containers would not be punctured or ruptured, and so that the lids or caps would not be loosened.

Precautions would be taken in the loading and stacking of herbicide containers in the transporting vehicle to assure that they would not fall as the vehicle moves.

Open containers would not be transported. Partly empty containers would be securely re-sealed before transportation.

Mixed herbicide will not be transported.

Each day after returning to the field office, all herbicide containers would be inspected for damage and leaks, and the vehicle would be examined for contamination. Back-pack sprayers will be cleaned each day before placing in the storage room.

No Action Alternative: Under this alternative, no action would be taken to control black henbane and mullein.

NEED FOR THE ACTION: In the White River Resource Area, the noxious weeds, Common Burdock *Arctium minus* and the Biennial Thistles; Plumeless (*Carduus acanthoides*), Musk (*Carduus nutans*), and Bull (*Cirsium vulgare*) Thistles have been established for several years and are spreading. All of these species are exotic ground cover dominating plant species. On occupied sites forage and soil cover are decreased to the point of making the area useless. All of these species are aggressive spreaders, using seeds. Burdock can be found throughout the resource area and is often found on moister sites including riparian areas. The biennial thistles are generally found on upland sites and readily spread on native rangelands.

The proposed action details a program for cultural and general herbicide use in the control of biennial thistles and burdock. Biennial thistles and burdock reproduce by seed. These seeds remain viable for a number of years. For this reason we do not expect to eradicate these noxious weeds by a single control effort, but hope to reduce populations to a point that additional control efforts are minimal.

This environmental assessment (EA) discusses a standardized approach to control of biennial thistles and burdock on a resource area scale. Prior to initiating actual control a site specific Pesticide Use Proposal would be prepared along with the applicable environmental documentation. If potential impacts of future proposals are sufficiently addressed in this EA, Documentation of NEPA Adequacy (DNA) will be prepared. If potential impacts are not sufficiently addressed, then additional analysis and documentation will be needed.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-13

Decision Language: Manage noxious weeds so that they cause no further negative environmental, aesthetic or economic impact.

AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES /
MITIGATION MEASURES:

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for t T2S, R101W Secs. 16 & 28; T2S R98W Sec. 17 these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action.

Environmental Consequences of the Proposed Action: Impacts from the proposed action are not anticipated.

Environmental Consequences of the No Action Alternative: Impacts from not permitting the area wide pesticide permit are not anticipated.

Mitigation: No additional mitigation is needed.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)

Affected Environment: The White River ROD/RMP identified seventeen ACECs encompassing 99,120 acres. Biennial thistles and burdock are known to occur in the East Douglas Creek. The East Douglas Creek ACEC is being managed to provide emphasis to the Colorado Cutthroat trout and its habitat. Specific information concerning this ACEC is contained in the White River ROD/RMP.

Environmental Consequences of the Proposed Action: Under the proposed action, when biennial thistles and burdock are found, a Pesticide Use Proposal would be prepared. If the weed infestation is within an ACEC the location would be identified and mitigation measures applied. Overall the weed control program is designed to benefit the resources for which an ACEC is

designated by controlling noxious weeds and maintaining the native plant communities. If plant species of special concern are identified within the ACEC, mitigation would be as described in the threatened and endangered plant section. On those ACECs where special status animals are of concern, special consideration will be given to the control method as described in the threatened and endangered animal section.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no treatment of biennial thistles and burdock within ACEC's. These species would have the opportunity to increase and spread on suitable habitats. This would degrade native plant communities and would negatively impact the resources for which several of the ACECs were designated.

Mitigation: See mitigation and stipulations outlined in the proposed action.

CULTURAL RESOURCES

Affected Environment: Inventory data for the area has been primarily driven by the need for compliance with historic preservation laws as a result of energy related development. As a result, inventory data is unevenly distributed and does not always cover areas where cultural resources might be regarded as most likely. Consequently only a relative few resources have been recorded to date. James Grady, in his Doctoral Dissertation (1980), presented the hypothesis that areas at the higher elevations in the Piceance Basin/Roan Plateau area of Northwest Colorado were only used for short periods in the summer months and then primarily as the prehistoric occupants hunted deer and elk for hides and meat, which was a major source of protein in aboriginal diets. If such was the case camp sites would be relatively scarce and located within one kilometer of so of reliable supplies of domestic water. Other sites would likely be kill/butchering sites which may be very fugitive and difficult to identify and/or evaluate.

Since the completion of Dr. Grady's studies a considerable body of additional inventory data has been acquired which has improved the understanding of the prehistoric occupation of the area. Specifically those areas below about 7500 feet mean sea level along areas of live water within a distance of 1.5 kilometers tend to have a much higher potential for site presence. Sites are shown to range from single episode hunting events to long term and/or multiple episode camp sites.

Environmental Consequences of the Proposed Action: Spraying of herbicides is expected to have little, if any, effect on cultural resources that might be present. Impacts would mostly be confined to compaction from vehicles and possible dislocation of surface artifacts during wet and muddy conditions.

Cultivation may cause crushing, breaking and/or destruction of artifacts. This hazard is most likely to occur on resources that are subsurface and cannot be identified on the ground surface by standard inventory techniques.

The above losses would be inadvertent and irreversible. However, current data are inadequate to quantify the resultant permanent loss to the regional database.

Environmental Consequences of the No Action Alternative: There would be no impacts to cultural materials under the No Action Alternative.

Mitigation: See the mitigation measures outlined in the proposed action.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The White River Resource Area contains a wide variety of plant communities ranging from salt-desert shrub to subalpine fir. The biennial thistles probably have the ability to grow within almost every plant community in the resource area. Burdock is limited to sites with more moisture and is shade tolerant growing well under trees and shrubs.

Environmental Consequences of the Proposed Action: Under the proposed action biennial thistles and burdock would be controlled manually or by herbicide. Using these two methods there is very little soil disturbance and no seeding would be needed. With no seeding there would be no opportunity for introduction of non-native plant species.

Environmental Consequences of the No Action Alternative: Under the no action alternative, biennial thistles and burdock would not be controlled. There would also not be any seeding or any opportunity for introduction of non-native invasive species. biennial thistles and burdock would continue to expand and dominate plant communities. Forage production and the benefits of healthy plant communities would be foregone. The cost of control would increase as the area of black henbane and mullein increased. Failing to control black biennial thistles and burdock would provide a seed source for adjacent allotments.

Mitigation: None

MIGRATORY BIRDS

Affected Environment: A large array of migratory birds fulfills nesting functions throughout the Resource Area's woodland and shrubland habitats during the months of May, June, and July. Migratory birds found in these habitats are typically common and widely distributed in the region. With the exception of sage grouse and burrowing owl, those songbird populations associated with the Resource Area's shrublands and pinyon-juniper habitats identified as having higher conservation interest (i.e., Rocky Mountain Bird Observatory, Partners in Flight program) appear to be stable and well distributed at appropriate densities in extensive suitable habitats. Burrowing owl and sage grouse are discussed separately in the Threatened and Endangered Species section and Terrestrial Wildlife section.

Migratory Birds with High Conservation Priority by Habitat Association in WRRRA

Salt desert	sagebrush	Pinyon-juniper	Mountain shrub	Aspen/fir
burrowing owl loggerhead shrike sage sparrow	sage grouse Brewer's sparrow green-tailed towhee	gray flycatcher gray vireo pinyon jay juniper titmouse black-thr gray warbler violet-green swallow	blue grouse common poorwill Virginia's warbler MacGillivray's warbler	broad-tld hummingbird red-naped sapsucker purple martin Cordilleran flycatcher

Environmental Consequences of the Proposed Action: These weeds tend to be a problem where competition from native vegetation has been compromised in some fashion (e.g., surface disturbance or excessive grazing use). Because migratory bird populations tend to be more abundant and diverse as vegetation volume and stratification increase, bird nesting activity in areas most likely infested with burdock and biennial thistles would likely be very limited. Because of these weeds' growth habit, it is unlikely that interstitial shrub or herbaceous growth would be commonly used for nesting. Short duration and localized herbicide applications or mechanical removal activities during early to mid-summer may cause temporary displacement of adult birds attending nests in nearby vegetation, but these episodes would have a low probability of disrupting an individual nesting effort or adversely influencing a nest's outcome. Because these weeds have no functional value as nesting substrate and suppress native vegetation by dominating sites of infestation, localized and temporary control activities are viewed as a desirable trade-off in preventing further seed dissemination and continued expansion of weed-related influences.

Environmental Consequences of the No Action Alternative: In the absence of weed control work, there would be no potential to disrupt breeding activities of migratory birds. Unabated, the spread of biennial thistles and burdock across more productive portions of the landscape (e.g., valleys and terraces) would eventually necessitate broader scale and more aggressive herbicide application practices, which would invariably involve longer duration and more extensive application activities in suitable nesting habitats—drastically increasing the probability that ongoing nesting attempts would be adversely affected.

Mitigation: None.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment (This includes all information related to Public Land Health Standard 4): All perennial and intermittent stream systems within the Resource Area eventually contribute to endangered Colorado River fisheries in the Colorado, White, Green, and Yampa Rivers. The White River between Rio Blanco Lake and the Utah state line is designated critical habitat for the endangered Colorado pike-minnow, although present occupation is confined to the

reach below Taylor Draw dam. Maintenance of proper bank, channel and floodplain function is specifically identified as essential to the continued existence of this fishery.

The White River corridor serves as an activity hub for nesting and wintering populations of threatened bald eagles. A number of nest and winter roost sites are associated with the river's cottonwood galleries.

Riparian/wetland habitats above 8000 feet possess general potential for occupation by the candidate boreal toad. However, there are no historical or recent indications (e.g., 1996 Natural Heritage Program inventory on the Roan Plateau) that boreal toad occupied such habitats on the Piceance/Douglas divides or Roan Plateau.

Under the auspices of a non-essential, experimental population rule and a cooperatively developed ferret management plan, black-footed ferrets have been released (or dispersed from Utah releases) annually in the Coyote Basin and Wolf Creek Management Areas since 1999. Ferret distribution is confined to the Area's lower elevation salt desert communities that support white-tailed prairie dogs, essentially a narrow corridor along Highway 40 from Elk Springs to the Utah line. Ferrets have successfully reproduced in Coyote Basin and although not yet established, a small number of ferrets likely persist in the lower Wolf Creek area.

A number of BLM-sensitive species are locally distributed throughout the Resource Area. White-tailed prairie dogs are broadly distributed at lower elevations along the lower half of the White River valley, primarily in xeric salt-desert communities that do not typically support burdock or biennial thistles. Young prairie dogs emerge from natal burrows in late May and early June. Coincident with prairie dog distribution, burrowing owl and ferruginous hawk are uncommon breeding species that have a high conservation priority for the Colorado Division of Wildlife and BLM. The owls return to occupy a prairie dog burrow system in early April and begin nesting soon afterward. By October, the birds leave for southern wintering grounds. Ferruginous hawk begin nesting by mid-April, their nests almost exclusively situated on ridges or upper basin positions in isolated junipers or artificial nest platforms built in the 1980's. A few ground nests have been found in the past, but they remain rare in this area. Young are normally fledged by mid-July. Over the past 3-4 years, small numbers of long-billed curlew have appeared late in spring throughout the Resource Area, but notably in prairie dog complexes such as Wolf Creek and Coyote Basin. Although these salt desert communities are at least superficially suited as nesting habitat, there has been no indication of nesting despite considerable wildlife survey activity by CDOW and BLM. Curlew begin nesting by early June and fledge young by early July.

There are a number of fishes that have been petitioned for listing under the Endangered Species Act (Colorado River cutthroat trout) or are listed by BLM as sensitive (effectively the same status as species candidate for listing), including: roundtail chub, and bluehead, flannelmouth, and mountain suckers. The following stream systems harbor populations of these fishes: the White River and its 100-year floodplain (Colorado pike-minnow and other upper Colorado River fishes), Bitter Creek, Piceance Creek, Crooked Wash, Big Beaver Creek, Trapper's Creek, East Douglas Creek and its tributaries, and Black Sulphur Creek and its tributaries. Although the small cutthroat populations in this Resource Area suffer variously from hybridization with

introduced trout, the current genetic conformation of these fisheries is of lesser consequence than the aquatic and riparian processes and conditions on which fishery viability depends.

Northern leopard frogs, although localized, are relatively common and well distributed along portions of Piceance Creek, the Dry Fork of Piceance, Crooked Wash, and the lower White River and are found widely in upland stockwaters.

Although the distribution and ecology of Townsend's big-eared bat, and fringed and Yuma myotis are poorly understood, limited collections have documented their presence from western Colorado's semi-desert shrublands, woodlands, and canyonlands. These bats use caves, mines, and unoccupied buildings for night, nursery, and hibernation roosts. The big-eared bat and Yuma myotis, in particular, prefer to forage over riparian habitats. Although these bats likely occur in small numbers throughout the Resource Area, habitat suitability may be sharply constrained by the paucity of suitable night, nursery, and hibernation sites. Although rock outcrops suitable for temporary daytime roosts are well distributed in these larger valleys, and relatively extensive riparian communities are available in each of the drainages, there are very few underground mines, no known caves, and unoccupied buildings are extremely limited in the area.

Environmental Consequences of the Proposed Action: Aquatic organisms are usually more susceptible to the toxic effects of herbicide than terrestrial wildlife. Chemical can enter aquatic systems through direct application, drift, surface runoff, or percolation/leaching. In particular, aquatic organisms are vulnerable to low concentrations of 2,4-D in ester formulations (0.5 ppm LD₅₀ for fish, 1.5 ppm LD₅₀ for macroinvertebrates). Although the ester formulations are considerably more toxic to aquatic organisms than alternate formulation of 2,4-D (amine or acid forms), within a few days or weeks esters tend to hydrolyze in soil to an acid form which is one-fiftieth to one-hundredth the toxicity of ester formulations. Although metsulfuron methyl (Escort) appears to be practically non-toxic to fish and aquatic invertebrates (Vegetation Treatment on BLM Lands, 1991), non-ionic surfactants used to enhance herbicide efficacy tend to be persistent and moderately to highly toxic to aquatic organisms.

Control work extended to these weeds is not expected to exceed 10 acres annually. Limited spot treatment of weeds on valley floors adjacent to fisheries or in areas that might be expected to contribute to downstream or adjacent aquatic habitats, in conjunction with BLM-prescribed mitigation and safeguards incorporated within the proposed action, poses no conceivable threat of measurable herbicide exposure to Colorado River fishes or other special status species associated with aquatic habitats. Vigilant suppression of small-scale weed infestations would help prevent weeds from compromising channel and floodplain functions that are key in maintaining suitable habitat conditions for Colorado River pike-minnow and bald eagle along the White River and all special status species associated with aquatic systems.

Although highly unlikely that a population of boreal toad would exist in any treatment site, much less be exposed to herbicide, available literature suggests that amphibia are generally less sensitive to herbicide exposure than are aquatic invertebrates or fish (USFWS, 1986. Manual of Acute Toxicity. Resource Publ. 160). The provisions under which herbicides would be applied would be sufficient to avoid any reasonable likelihood of boreal toads or leopard frogs from

being exposed to harmful levels of herbicides, or their habitat being adversely affected by weed control efforts. Rather, containment and eradication of these weeds from areas that may contribute to downstream aquatic systems would help maintain the utility of these habitats for riparian and wetland associates, including bats.

Escort and surfactants used in conjunction with this herbicide are very slightly to slightly toxic to mammals and birds (LD₅₀: >2000 mg/kg); 2,4-D is moderately toxic to birds and mammals. Because of the current and limited distribution of burdock and biennial thistle infestations (anticipated treatment extent of up to 10 acres annually) and the fact that these weeds possess no attributes attractive to special status species, herbicide exposure in terrestrial situations is improbable. Label consistent spot application of these chemicals as proposed poses no conceivable threat of acute or chronic exposure levels to any of the terrestrial special status species (e.g., black-footed ferret, bald eagle, prairie dog, or burrowing owl, owing to the chemical's relative nontoxic character, the limited extent of application, and limited means for exposure.

Summer control activities would be short term and dispersed and do not represent activity levels that would have any substantive influence on sensitive habitats and/or breeding activities of special status species. Reproductive activities of fossorial species (i.e., prairie dog, burrowing owl, black-footed ferret in Wolf Creek) would remain secure by virtue of the habitat. It would be very unlikely that nesting efforts of species whose nests are difficult to locate in advance (e.g., sage grouse and potential curlew) would be compromised. These weeds tend to be a problem where competition from native vegetation has been compromised in some fashion (e.g., surface disturbance or excessive grazing use). Dense erect patches of thistle are inconsistent with sites selected by curlew for nesting (i.e., open, low stature grasslands), and heavily grazed or disturbed sites do not represent suitable sage grouse nesting cover. Although it is unlikely that the nests of bald eagle or ferruginous hawk would ever become involved during control activities, standard timing limitation stipulations would be applied to defer or condition activity so as not to detract from nest success.

Application of these chemicals as proposed poses no conceivable threat of acute or chronic exposure levels to any special status species because of the chemical's low toxicity, limited extent of herbicide application, and limited means for animal exposure.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no potential for exposing special status species to fugitive herbicide in the near term. Failure to control these weeds would, however, allow noxious weeds to become increasingly well established in watersheds contributing to the White River, and posing a threat to the integrity of downstream aquatic habitats that harbor special status species addressed in this document. Failure to treat these weeds in a timely and effective fashion, particularly those prone to proliferate in bank and floodplain situations, would prompt rapid and extensive dissemination of seed downstream. Weed proliferations along the river corridor would inevitably displace or thin erosion resistant bank vegetation, increase sediment yields, and slow or reverse channel/bank/floodplain restoration processes, and would, thereby contradict one of the major recovery goals for critical habitat established by the U.S. Fish and Wildlife Service for the Colorado pike-minnow, that is, maintenance of proper functioning condition on the river's

100-year floodplain. Once weeds are entrenched, subsequent control would necessitate more intensive and widespread use of herbicides in increasingly close association with occupied habitats—increasing the likelihood of direct toxicity to the fish or other important aquatic constituents (e.g., amphibians, invertebrates). Such situations invariably necessitate more costly resource tradeoffs to gain acceptable levels of weed control. Relatedly, maintenance of proper functioning riparian processes along the White River (i.e. BLM lands within the White River ACEC) is considered paramount in maintaining the long term suitability of these riverine galleries for bald eagle use (continued availability of sites for cottonwood regeneration).

Mitigation: Mitigation and stipulations are integral with the proposed action.

Finding on the Public Land Health Standard for Threatened & Endangered species: Currently, this standard is being met across the Resource Area with populations and habitat suitability for the special status species discussed above generally stable. Weaknesses in securing population viability in the case of boreal toad and perhaps black-footed ferret are not attributable to authorized land uses, but diseases that are beyond the scope of this action. The Public Land Health Standard for Threatened & Endangered species recognizes the potential for progressive deterioration of rangeland and aquatic habitats attributable to the proliferation of noxious weeds. The proposed action complements management that minimizes noxious and undesirable weed expression in the overall plant community and, as mitigated, has appropriate safeguards that would effectively avoid those influences chemical exposure may have on individual animals or habitat conditions, thereby maintaining a situation where the standard is met through time. Conversely, the no action alternative would promote incremental increases in acreage supporting weed monocultures, and over time, increasingly large landscape parcels would fail to meet this standard.

THREATENED, ENDANGERED, AND SENSITIVE PLANT SPECIES (includes a finding on Standard 4)

Affected Environment: Habitats within the White River Resource Area have been identified for 19 plant species that are either rare and endemic or rare and are considered as a BLM sensitive species. Many of these sensitive species are endemic to the Green River geologic formation. This formation is limited to the Uintah Basin of Utah and the Piceance Basin/Roan Plateau of Colorado, and contains several locations of threatened or sensitive plant species. Most of the Green River shale formations in Piceance Basin and along Raven Ridge have been inventoried with locations of known populations of sensitive plants and potential habitats identified. The Draft White River, Resource Management Plan contains the species list, status (pages 3-16 to 3-18) and location (map 2-11) of the T & E and sensitive plant species.

Environmental Consequences of the Proposed Action: Following the mitigation described in the proposed action, on areas containing sensitive species, herbicidal control would not be used, and the preferred method of control would become manual control. With manual weed control there would not be the opportunity for damage to special species from herbicides. Manual weed control works well on biennial thistles and burdock. Overall the exposures on

which the special status plants occupy are poor habitat for biennial thistles and burdock and pulling any weeds that did occur would be sufficient

Areas of potential habitat for sensitive plants would be inventoried for their absence prior to any herbicidal usage should manual control prove ineffective.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no impacts to sensitive species relative to mechanical or herbicidal control. Failing to control biennial thistles and burdock is expected to adversely impact on the narrow life zones of the sensitive plant species found in the White River Field Office.

Mitigation: See mitigation and stipulations identified in the proposed action.

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed action would function to meet the indicator for vegetation health related to; overall noxious weeds are a minor component of the plant community. The no action alternative would negatively influence the Threatened, Endangered, or Sensitive plant species.

WASTES, HAZARDOUS OR SOLID

Affected Environment: Digging of biennial thistles and burdock does not involve hazardous wastes. Under the proposed action 6lb. of 2,4-D and Escort would be used for herbicidal weed control. Both of these chemicals are approved for use on public lands and were analyzed in the EIS for Vegetation Treatments on BLM Lands in the 13 Western States (BLM 1991).

Environmental Consequences of the Proposed Action: Use of herbicides for control of noxious weeds is a common and reasonable practice. Use of these two chemicals as detailed in this environmental assessment would prevent any generation of hazardous wastes.

Environmental Consequences of the No Action Alternative: There would be no opportunity for development of hazardous waste.

Mitigation: None

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: Surface water quality data is available for several sites on the White River, major tributaries, and many ephemeral drainage in the Piceance Basin through various USGS publications. The Colorado Department of Public Health, Water Quality Control Commission, has adopted (Colorado Department of Public Health 2004) basic standards and an antidegradation rule for all surface waters in the resource area. These standards reflect the ambient water quality and define maximum allowable concentrations for various water quality parameters. Most surface water segments on BLM lands are in the "use protected" category that

states, at a minimum, all state surface waters shall be maintained and protected. No further water quality degradation is allowable that would further interfere with or become harmful to that streams designated use.

Environmental Consequences of the Proposed Action: Drift into drainage bottoms or springs may occur, altering water quality temporarily. Use of best management practices outlined as mitigation in the proposed action would eliminate negative impacts imposed by the proposed action.

Environmental Consequences of the No Action Alternative: There would be no opportunity for drift of herbicides into drainage bottoms or springs, and no impacts on water quality.

Mitigation: None.

Finding on the Public Land Health Standard for water quality: Implementation of the proposed action would not cause water quality to be outside the standards set by the State of Colorado, which is the standard for water quality on public lands.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: The White River Resource Area contains a number of riparian zones. Table 2-9, Appendix D, page 8 of the White River ROD/RMP shows the high priority riparian habitats, Functioning Condition, acres and ecological condition. Twenty eight riparian areas are identified containing 719 acres of riparian habitat. In general biennial thistles are upland species adapted to disturbed environments. Burdock is found associated with riparian vegetation, but is not obligate to supplemental water.

Environmental Consequences of the Proposed Action: During preparation of a site-specific Pesticide Use Proposal, affected riparian areas would be identified along with precautions and measures to avoid impact to these sensitive areas. Precautions would be imposed, in addition to the buffer strips identified in the mitigation section. If these noxious weed species were within a riparian community, there is the possibility of herbicide drifting into the riparian zone. With the mitigation and stipulations identified within the proposed action the actual opportunity for damage from herbicides is small. If herbicides were to contaminate the riparian zone, those animals and plants which are susceptible to 2,4-D or Escort may be damaged or killed, depending on the concentration and the non-target susceptibility.

Environmental Consequences of the No Action Alternative: Under this alternative there would be no opportunity for herbicides to contaminate riparian zones, and there would be no opportunity for non-target plants to be affected.

Mitigation: See the mitigation and stipulations identified in the proposed action.

Finding on the Public Land Health Standard for riparian systems: Noxious weeds are one of the greatest threats to the health of riparian communities. The Thistles detailed in this environmental assessment are adapted to areas adjacent to riparian habitats. In the event these weeds were located in riparian zones a site specific control plan and environmental assessment would be prepared. The proposed action would not affect riparian areas, and would also not have any impact, positively or negatively on the standard for riparian systems

WILDERNESS

Affected Environment: There are six Wilderness Study Areas (WSA) encompassing approximately 81,000 acres within the White River Resource Area. WSAs are managed to provide for natural ecological processes to take precedence over the hand of managers however under the Interim Management Policy for lands under wilderness review (H-8550-1) vegetative manipulation by chemical, mechanical, or biological means will be allowed when there is no effective alternative and when control of the noxious weed is necessary to maintain natural ecological balance within a WSA or portion of a WSA. In all cases where vegetative manipulation is proposed, the activity must not adversely impact wilderness values within any portion of the WSA. Noxious weeds may be controlled by grubbing or with chemicals when they threaten lands outside the WSA or are spreading within the WSA, provided the control can be affected without adverse impacts on wilderness values.

Environmental Consequences of the Proposed Action: Controlling biennial thistles and burdock would maintain or enhance the wilderness values by preventing these species from replacing native desirable plant species. By controlling or limiting the spread of noxious weeds, the naturalness of the WSA would be preserved. If motorized vehicle use is the minimum application tool, the site, sound, or tracks from the equipment may detract from the current or future wilderness visitor's experience of solitude and impact primitive recreation. However, this is unlikely as most visitors do not utilize WSAs during the spraying season.

Environmental Consequences of the No Action Alternative: The no action alternative would allow degradation the naturalness component of the of wilderness values by allowing the noxious weeds, biennial thistles and burdock to spread on suitable sites.

Mitigation: See mitigation and stipulations identified in the proposed action.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No prime and unique farmlands, or Wild and Scenic Rivers exist within the area affected by the proposed action. No flood plains would be affected. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements must be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: Soils of the area are generally deep and well drained with a loam surface texture and a channery sandy clay loam subsoil extending to greater than 30 inches. In an undisturbed condition runoff is slow and the erosion hazard is slight. However, if the surface is disturbed, and runoff is rapid the erosion hazard can be severe

Environmental Consequences of the Proposed Action: Little if any negative impacts are expected as a result of the proposed action. A temporary increase in sedimentation could be expected from vegetation loss and continue until successful revegetation has occurred. Spraying for biennial thistles and burdock would allow a more protective vegetative species to grow and actually help to reduce overland sedimentation.

Environmental Consequences of the No Action Alternative: Cover of biennial thistles and burdock would increase with a decrease in grass species needed to maintain soil stability. Long term increase in sedimentation would be expected.

Mitigation: None

Finding on the Public Land Health Standard for upland soils: Controlling noxious weed infestations is critical to maintaining healthy and productive plant communities which are critical to upland soils health. The proposed action would contribute to meeting the standard for upland soils health.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The project area contains a variety of vegetation types and intermixes. The predominate vegetation associations of concern are upland sagebrush associations and mountain browse. Most of the dense concentrations of biennial thistles and burdock are on the disturbed areas. The adjacent areas susceptible to infestation are the sagebrush and mountain browse associations. Predominate vegetation of the sagebrush what include Kentucky bluegrass, mountain sagebrush, rabbitbrush and snowberry. Predominate vegetation of the mountain browse association is oakbrush, serviceberry, snowberry, elk sedge, Columbia needlegrass and various forbs. These associations are generally in good condition which is a competitive advantage, although biennial thistles been found invading into these areas.

Environmental Consequences of the Proposed Action: Mechanical control would not affect composition of the plant community with the exception of removal of the noxious weeds. 2,4-D and Escort herbicides are both specific to the control of broadleaf plants. This specificity allows the pest plants to be controlled while leaving the grasses relatively unaffected. With the pest plants removed, the remaining grass species increase in dominance, which decreases the

ability of the weed seedlings to becoming established. As a result of 2,4-D's and Escort's specificity to broad leaf plants there would be a loss of native broadleaf species, annuals and perennial. A few native species, such as yarrow, are relatively resistant to 2,4-D. Escort mode of action is more effective than 2,4-D in damaging weed seeds making them non-viable.

Environmental Consequences of the No Action Alternative: Biennial thistles and burdock would increase and spread in the native plant communities. There would also be a reservoir of seed produced that would be available to transport off-site causing additional outbreaks.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Controlling noxious weeds, as described in the proposed action, is integral to having public lands which meet the indicator of "Noxious weeds and undesirable species are minimal in the overall plant community."

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: Streams that support aquatic habitats are distributed across the Resource Area (Tables 2-24, 25, and 26 in draft RMP). Essentially all perennial and some of the larger intermittent streams support simple invertebrate-based aquatic communities, but in the context of herbicide application, of most concern are those that directly or indirectly support vertebrate forms (i.e., mammals, amphibians, sport or native nongame fish). The following table lists those systems that are known to support higher order aquatic habitats by Geographic Reference Unit (GRA).

Douglas GRA	Piceance GRA	Danforth Hills GRA
Douglas Ck	Cow Ck and tribs	Flag Ck and tribs
West Ck	Fawn Ck and tribs	Wilson Ck and tribs
West Douglas Ck	Dry Fork and tribs	Good Spring Ck and tribs
West Evacuation Ck	Willow Ck and tribs	Fawn Ck reservoir
Bitter Ck	Hunter Ck and tribs	
Spring Ck	Clear Ck	Crooked Wash GRA
	Ryan Gulch	Deep Channel Ck
Blue Mountain GRA	Stake Springs Draw	Tschuddi Gulch
Meadow Ck	Duck Ck and tribs	Scenery Gulch
Divide Ck reservoir		Black's Gulch
Peterson Draw reservoir		

Environmental Consequences of the Proposed Action: See Threatened and Endangered Species section for discussion of impacts on species associated with aquatic habitats. BLM-imposed safeguards and label restrictions would drastically reduce the potential for aquatic contamination. Consistent spot treatment of noxious weeds would sharply limit the development and/or influence of weed populations in aquatic communities. The proliferation of these weeds

on bank and floodplain features would contribute to the instability of bank and incise walls by suppressing vegetation forms that provide effective erosion resistance. Left unattended, weeds would likely assume a primary role in aggravated bank and channel erosion, disrupting channel stability and degrading conditions conducive to the support of aquatic organisms (e.g., unstable bed substrate, decreasing depths, increasing and more widely fluctuating water temperatures).

Environmental Consequences of the No Action Alternative: There would be no potential for direct adverse impacts related to chemical application. Neglecting control and allowing further weed proliferation would ultimately necessitate broader scale treatment, perhaps with stronger, more persistent herbicides. More aggressive weed control strategies would dramatically increase the likelihood that aquatic communities would be exposed, at the very least, to elevated herbicide levels. Weed proliferation in channel systems supporting aquatic habitats would impoverish riparian character and compromise channel function, virtually eliminating any short term prospect for improving riparian or aquatic conditions and negating ongoing efforts to improve the compatibility of livestock grazing with riparian and channel function.

Mitigation: Mitigation and stipulations are integral with the proposed action.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Overall aquatic habitat conditions within the Resource Area are generally meeting or moving toward meeting Standard 3. The proposed action would complement the meeting of this standard by minimizing occupation of aquatic habitats by noxious weeds and reducing the adverse influences of weeds on riparian and channel functions. Safeguards incorporated within the proposed action would prevent aquatic organisms from being exposed to harmful levels of chemical such that weed control would have no effective influence on the demographics or distribution of aquatic organisms in the White River Resource Area.

The no action alternative would aggravate the dissemination of noxious weed seeds throughout a watershed and allow for increasing establishment and expression of undesirable vegetation forms in riparian and aquatic communities. Over time, this alternative would promote a situation where increasingly large landscape parcels would fail to meet this standard.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The Resource Area supports a season long use by big game, sage and blue grouse, as well as a diverse assemblage of non-game birds and mammals. Importantly, animal use associated with the late spring through early fall periods (at least) are in many ways tied to the availability, condition, and form of herbaceous and woody broadleaf vegetation as a component of cover and/or forage.

Well-distributed supplies of broadleaf forage are important to big game for prolonging adequate nutritional planes during the winter (deciduous browse) and sustaining high nutritional levels during spring recovery, the reproductive period, and fat accumulation for winter (primarily succulent herbaceous forms).

Nongame and small game populations are typically more abundant and diverse in shrub and woodland communities with well-developed herbaceous understories and woody canopies. These small mammal and bird populations are important prey items for all raptors found in the area, and are integral with the maintenance of high levels of community diversity.

Environmental Consequences of the Proposed Action: Escort, proposed surfactant, and 2,4-D are very slightly to moderately toxic to mammals and birds. Targeted weeds offer little attraction to wildlife as cover or forage. Because treatment areas would be small and generally do not represent preferred sites for animal occupation, it is inconceivable that resident animals would be exposed to potentially damaging levels of herbicide. Although chemical treatment would likely suppress or destroy desirable broadleaf vegetation interspersed with weeds, timely control of small or confined infestations would ultimately benefit all wildlife values by minimizing the extent of subsequent herbicide treatment and maintaining the diversity and productivity of affected rangeland vegetation.

Summer control activities would be short term and dispersed and would not normally represent activity levels or time frames that would be deleterious to sensitive habitats and/or breeding activities of big game, grouse, or raptor. In the event raptor nest activity is discovered within treatment areas, RMP-approved restrictions on motorized application equipment and approach to the nest site would be applied until nest functions are complete.

Because nongame and small game mammal and bird populations tend to be more abundant and diverse as vegetation volume and stratification increase, the likelihood of control activities substantially and directly involving reproductive habitats or functions of nongame and small game wildlife is low. Short duration and extremely localized herbicide applications or mechanical removal activities during early to mid-summer may cause temporary displacement of adult animals from adjacent habitats, but these episodes would have no reasonable probability of adversely affecting local reproductive efforts or recruitment. Because these weeds have no functional value as foraging or nesting substrate and suppress native vegetation by dominating sites of infestation, localized and temporary control activities are viewed as a desirable trade-off in preventing further seed dissemination and continued expansion of weed-related influences.

Environmental Consequences of the No Action Alternative: Unabated, the spread of these weeds across the landscape would eventually necessitate broad scale herbicide application which would inescapably involve more severe wildlife concessions manifested by more extensive and longer term losses of forage and cover provided by broadleaf woody and herbaceous vegetation and increasing and expansive levels of control activity.

Isolated biennial thistles and burdock infestations, although not now exerting any marked influence on adjacent rangeland communities, represent potential for exponential spread and becoming an influential herbaceous component. Both biennial thistles and burdock's growth habitat are capable of suppressing intermixed herbaceous growth, while providing no beneficial attributes as wildlife cover or forage. The ultimate quality and utility of adjacent habitats would become increasingly compromised as degradation of broadleaf composition and diversity progressed. Eliminating this threat while the weed is generally confined to inconsequential

dimensions is vastly superior to the alternative of widespread herbicide application across the landscape and its functional wildlife habitats.

Mitigation: Mitigation and stipulations are integral with the proposed action.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Currently, Standard 3 is being met broadly across the Resource Area. Resident wildlife populations are appropriate to the region and there are no known instances where population viability is in question. The extent and distribution of suitable habitat is generally stable and consistent with landscape capability.

The Public Land Health Standard for plant and animal communities recognizes the potential for progressive deterioration of rangeland and aquatic habitats attributable to the proliferation of noxious weeds. The proposed action complements management that minimizes noxious and undesirable weed expression in the overall plant community and, as mitigated, has appropriate safeguards that would effectively avoid those influences chemical exposure may have on individual animals or habitat conditions, thereby maintaining a situation where the standard is met through time. Conversely, the no action alternative would promote incremental increases in acreage supporting weed monocultures, and over time, increasingly large landscape parcels would fail to meet this standard.

OTHER NON-CRITICAL ELEMENTS: For the following elements, those brought forward for analysis will be formatted as shown above.

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Access and Transportation		X	
Cadastral Survey	X		
Fire Management	X		
Forest Management			X
Geology and Minerals	X		
Hydrology/Water Rights		X	
Law Enforcement		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations	X		
Recreation		X	
Socio-Economics		X	
Visual Resources		X	
Wild Horses			X

FOREST MANAGEMENT

Affected Environment: Biennial thistles and burdock have been found adjacent to aspen within the resource area. Biennial thistles have also been found adjacent to pinyon/juniper woodlands often associated with seismic survey, pipeline construction and road maintenance. These noxious weed species have not been shown to affect the forest communities in terms of forest health issues or forest products.

Environmental Consequences of the Proposed Action: 2,4-D has been used in this resource area for 20 years with substantial acreage under aspen canopy. To date no adverse impacts to aspen has been found. No adverse impacts to spruce-fir, Douglas-fir and subalpine fir communities from 2,4-D have been found. Escort has been used for several years and no impacts to aspen or the coniferous communities have been found. Digging and pulling of thistles and burdock would have no impacts on aspen or the coniferous communities.

Environmental Consequences of the No Action Alternative: biennial thistles and burdock would continue to spread through forest stands dominating under story species.

Mitigation: None

PALEONTOLOGY

Affected Environment: Within the Field Office area the BLM has classified the Chinle, Glen Canyon, Morrison, Cedar Mountain, Mowry Shale, Parachute Creek Member of the Green River Formation, Wasatch and Brown's Park formation have been classified as Category I formations meaning that they are known to produce scientifically important fossil resources. These formations are exposed throughout the field office area and could potentially be affected by cultivation control techniques.

Environmental Consequences of the Proposed Action: Impacts to paleontological resources would generally be similar to those described for cultural resources where the rock matrix is highly eroded and fossils are exposed on the surface. Fossils still embedded within the rock matrix would probably not be affected by the proposed action.

Environmental Consequences of the No Action Alternative: There would be no impacts to paleontological resources under the No Action Alternative.

Mitigation: See the mitigation described in the proposed action.

RANGELAND MANAGEMENT

Affected Environment: The project area contains a variety of vegetation types and intermixes. Most of the dense concentrations of burdock are on the first terrace above the stream channel.

Biennial thistles are adapted to a wide range of habitats from salt desert shrub to mountain browse associations.

Environmental Consequences of the Proposed Action: 2,4-D and Escort are specific to broadleaf plants. This specificity allows the pest plants to be controlled while leaving the grasses relatively unaffected. With the pest plants removed, the remaining grass species increase in dominance, which decreases the establishment of weed seedlings. Also, as a result of these herbicides specificity to broadleaf's there will be a loss of native broadleaf species, annuals and perennials. A few native species are relatively resistant to 2,4-D. This includes yarrow. Maintaining or improving forage condition and production is a benefit to the livestock operations.

Environmental Consequences of the No Action Alternative: Controlling biennial thistles and burdock is critical to maintaining the forage resource on which livestock operations are dependant. There have been no studies or personal observations where biennial thistles and burdock have been controlled by grazing management alone. Without direct control these noxious weed species spread readily and increase in ground cover. As biennial thistles and burdock competition with native vegetation increases, composition, cover and production of native species decreases dramatically. Loss of forage and resulting decreases in livestock numbers would significantly negatively impact the operators on the affected allotments.

Mitigation: See mitigation and stipulations identified in the proposed action.

WILD HORSES

Affected Environment: Wild horses are managed, and are widely distributed throughout the year, on 190,130 acres within the project area. During the spring foaling season wild horse foals rely on mixed shrub communities for cover and protection. Grasses equate to as much as 90% of wild horse diet. The exception to this is in the winter months, during periods of heavy snow accumulation, when wild horses can rely primarily on browse plant species. Neither biennial thistles nor burdock contribute to the forage or cover needs of wild horses. Continued increases of invasive weed colonies degrade the plant communities relied upon by wild horses.

Environmental Consequences of the Proposed Action: Eliminating biennial thistles and burdock while they are confined to specific areas would result in increased desirable forage and so would directly benefit the wild horse herd. Conscientious application of the pesticides analyzed in this EA is not expected to adversely impact the health of the wild horse herd, or individual animals within the herd. Selective spraying is not expected to significantly decrease the cover relied upon by wild horse foals.

Environmental Consequences of the No Action Alternative: The continued encroachment of invasive weed species would decrease the availability of desirable grass and brows plant species relied upon by the wild horse herd. Future control of the weeds would require broad applications of pesticide which could result in the loss of cover for wild horse foals and decreased forage for the herd.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY: Proliferation of Noxious Weeds is a problem throughout the State of Colorado and the Western United States. Control of biennial thistles and burdock within the White River Resource Area, as is the intention of the proposed action, would contribute to State-wide and Nation-wide efforts to reduce this proliferation and its impacts on the environment and natural resources.

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Carol Hollowed	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Ed Hollowed	Wildlife Biologist	Migratory Birds
Ed Hollowed	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Marty O'Mara	Hazmat Collateral	Wastes, Hazardous or Solid
Carol Hollowed	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Robert Fowler	Forester	Wetlands and Riparian Zones
Chris Ham	Wilderness Specialist	Wilderness
Carol Hollowed	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Scott Pavey	Planning and Environmental Coordinator	Access and Transportation
Chris Ham	Outdoor Recreation Planner	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

REFERENCES:

- BLM (1994). White River Resource Area, Draft Resource Management Plan and Environmental Impact Statement. Available on the internet at: <http://www.co.blm.gov/nepa/rmpdocs/wrfodocs/wrformp.htm>
- BLM (1991). Record of Decision, Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States. U.S. Department of the Interior. Available on the internet at <http://www.blm.gov/weeds/VegEIS/index.htm>.
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- Colorado Department of Public Health, Water Quality Control Commission (2004). Regulation No. 37, Classifications and Numeric Standards for Lower Colorado River Basin. Available on the internet at <http://www.cdphe.state.co.us/op/regs/waterqualityregs.asp>.
- Mayer, F.L. (1986). Manual of acute toxicity : interpretation and data base for 410 chemicals and 66 species of freshwater animals. Resource Publication, U.S. Department of the Interior, Fish and Wildlife Service.

Finding of No Significant Impact/Decision Record
(FONSI/DR)

CO-110-2004-059-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed, resulting in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

DECISION AND RATIONALE: It is my decision to implement the proposed action for the control of biennial thistles and burdock using cultivation and herbicidal control. This alternative is approved, subject to the mitigation, stipulations, and safeguard measures identified in the proposed action and the Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States (1991). With this mitigation, stipulations and safeguard measures, the potential environmental impacts from implementing the proposed action are expected to be minimal. Control of noxious weeds is in compliance with the White River ROD/RMP which identifies an objective to “Manage noxious weeds so that they cause no further negative environmental, aesthetic or economic impact”.

MITIGATION MEASURES: Refer to mitigation/stipulation measures and safeguard measures contained on pages 2-2 through 2-4 of the EA.

NAME OF PREPARER:

NAME OF ENVIRONMENTAL COORDINATOR:

SIGNATURE OF AUTHORIZED OFFICIAL: _____

Field Manager

DATE SIGNED: