

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

## ENVIRONMENTAL ASSESSMENT

**NUMBER:** CO-110-2007-76-EA

**CASEFILE/PROJECT NUMBER** (optional):

**PROJECT NAME:** Canada thistle Control

**LEGAL DESCRIPTION:** White River Resource Area

**APPLICANT:** BLM

### **DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:**

**Proposed Action - Integrated weed control strategy:** Under this alternative herbicide control would be used to control Canada thistle (*Cirsium arvense*). All control activities would be in compliance with the Final EIS for "Vegetative Treatment on BLM Lands", including Colorado BLM's, Record of Decision of July 1991.

Herbicidal control would be the main control method for this noxious weed. Mechanical methods of control i.e. digging or mowing have not been shown to control this species because this weed is perennial and has an extensive root system. 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, Tordon/2,4-D as a tank mix and Escort: The Tordon/2,4-D mix would be available for use on upland infestations where water contamination and soil infiltration are not a concern. In riparian areas Escort along with a specific non-ionic surfactant will be used. These chemicals would be used separately as described below.

The proposed action is ground application of a tank mixture of 2,4-D LV ester and Tordon 22K at a rate of 1# (22 ozs.) and 0.375# (1.5 pints) active ingredient per acre respectively for the management of Canada thistle.

Tordon 22K (Picloram) is produced by DowElanco. This herbicide is highly translocatable, selective herbicide active through both foliage and roots on many broadleaf herbaceous weeds and woody plants. Picloram is persistent and is more toxic to some broadleaf plants than 2,4-D. Thus, precautions must be followed diligently to avoid injury to desirable plants. This chemical mimics natural plant hormones. Leaching potential is large. Acute Toxicity-Approximate oral dose to cause death of 150 pound person is 2.4 cups. (*Source: Weed Management Handbook, 1997-1998, Montana-Utah-Wyoming*)

2,4-D is produced by a number of manufacturers. The formulation proposed is a Low Vol. Amine formulation which is less volatile than ester formulations. 2,4-D is a selective, foliar absorbed, translocated phenoxy herbicide used mainly in post-emergence applications. 2,4-D is effective against many annual and perennial broadleaf weeds. Plants are most susceptible when they are young and growing rapidly. Approximate oral dose to cause death of 150-pound person 1.3 to 4.6 tablespoons. (*Source: Weed Management Handbook, 1997-1998, Montana-Utah-Wyoming*)

Escort, would be used in areas where drift or runoff of 2,4-D/Tordon 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. This herbicide is used in conjunction with a surfactant to improve penetration through the leaf surface. The surfactant Agri-Dex which is a proprietary: heavy range paraffin-based petroleum oil with polyol fatty acid esters and polyphenol derivatives is classified as an oil based surfactant. This surfactant is non-ionic dispersible in water as micelles. Biodegradation is presumed to be rapid, but no formal studies have been conducted. This surfactant is practically non-toxic through oral routes to mammals and practically non-toxic to fish and other aquatic biota. This surfactant is approved for use by BLM. Agri-Dex surfactant has an aquatic toxicity of 271 PPM for rainbow trout 96-hrLC50 and 386 PPM for rainbow trout 24-hrLC50

Hilight 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 the Tordon/2,4-D mix 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.
- 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.
- Metsulfuron methyl (Escort) should be used in any situation where fisheries are involved or in areas that might be expected to contribute to downstream or adjacent aquatic habitats.
- 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 he 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.
- Herbicide application on the White River's 100-year floodplain will require a separate NEPA analysis. Although label and BLM-imposed application measures are presently considered adequate to prevent any direct or indirect impact to aquatic communities in the White River, site-specific review of proposed actions may prompt initiation of Section 7 consultation with the USFWS. Because metsulfuron methyl (Escort) is practically non-toxic to fish and aquatic invertebrates and does not bioaccumulate, use of this product will likely be consistently recommended when control in stream or river floodplain situations is proposed.

*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 resealed 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 Canadian Thistle.

**NEED FOR THE ACTION:** In the White River Resource Area, Canada thistle has been established for several years and is spreading. This species is an aggressive, exotic, ground cover dominating plant species. On occupied sites forage and soil cover are decreased to the

point of making the area useless. Canada thistle can be found throughout the resource area and is often found within riparian areas. This noxious weed species needs to be controlled to maintain the health and productivity of our plant communities.

The proposed action details a program for herbicide control of Canada thistle. Canada thistle reproduces by vegetatively and by seed. Once established, Canada thistle spreads through a system of rhizomes. Because of the extensive root system this plant is generally not controlled by a single control effort, but requires follow-up treatments to treat sprouts. Re-treatments generally require significantly less herbicide than the initial treatment.

This environmental assessment (EA) discusses a standardized approach to control Canada thistle 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 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:* The entire White River Resource area has been classified as either attainment or unclassified for all pollutants, and most of the area has been designated prevention of significant deterioration (PSD) class II. 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:* Adverse impacts to air quality resulting from the area wide herbicide treatment of Canada Thistle as outlined in 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. Canada thistle are known to occur in the East Douglas Creek, and Deer Gulch ACECs. The East Douglas Creek ACEC is being managed to provide emphasis to the Colorado Cutthroat trout and its habitat. Deer Gulch are being managed to provide emphasis for special status plant species. Specific information concerning these ACECs is contained in the White River ROD/RMP.

*Environmental Consequences of the Proposed Action:* Under the proposed action, when Canada thistle is 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 Canada thistle 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.

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. Canada thistle probably has the ability to grow within almost every plant community in the resource area, but is less adapted to communities with rainfall less than 14 inches. Canada thistle is particularly a problem in riparian areas (Douglas Creek) and wetter upland sites.

*Environmental Consequences of the Proposed Action:* Under the proposed action Canada thistle would be controlled by herbicide, with a choice of two herbicides depending on the site.

Using herbicides creates 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, Canada thistle would not be controlled. There would also not be any seeding or any opportunity for introduction of non-native invasive species. Canada thistle 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 Canada thistle increases. Failing to control Canada thistle 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, shrubland, and bottomland habitats during the months of May, June, and July. Species associated with the mid- to upper elevation shrubland and woodland communities in the Resource Area are typical and widely represented in the region. Those songbird populations associated with this Resource Area’s shrublands and pinyon-juniper 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. Riparian habitats in this Resource Area tend to be either small herbaceous-base systems with few avian associates (e.g., song sparrow) or willow/tamarisk dominated bottoms that support such species as blue grosbeak, yellow-breasted chat, black-chinned hummingbird, and yellow warbler. None of these birds are listed as having high conservation concern.

Migratory Birds with High Conservation Priority by Habitat Association in WRR

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

*Environmental Consequences of the Proposed Action:* Canada thistle is typically associated with moist areas within virtually all community types and tends to dominate the character of infested acreage. Because migratory bird populations tend to be more abundant and diverse as vegetation volume and stratification increase, bird nesting activity in areas is areas infested with Canada thistle is extremely limited. 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 habitats, 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 Canada thistle would eventually necessitate broader scale and more aggressive herbicide application, which would invariably involve longer duration and more extensive application activities in suitable nesting habitats—substantially 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 persist in the Wolf Creek area. These prairie dog communities also support nesting populations of burrowing owl, an uncommon species that has high conservation priority in both the Colorado Division of Wildlife and BLM. These birds return to occupy a prairie dog burrow system in early April and begin nesting soon after. By October, the birds leave for southern wintering grounds.

*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 very low concentrations of 2,4-D in ester formulations (0.5 ppm LD<sub>50</sub> for fish, 1.5 ppm LD<sub>50</sub> 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. In contrast, metsulfuron methyl (Escort) appears to be practically non-toxic to fish and aquatic invertebrates (*Vegetation Treatment on BLM Lands, 1991*). Label consistent application of Escort poses virtually no toxic threat to aquatic wildlife.

Label restricted 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 associated aquatic habitat conditions. Vigilant suppression of small-scale weed infestations would help prevent weeds from compromising channel and floodplain functions that are key to maintaining suitable habitat conditions for Colorado River pike-minnow and bald eagle along the White River.

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 under either alternative would be sufficient to avoid any reasonable likelihood of boreal toads or their habitat being adversely affected by weed control efforts.

Escort is very slightly toxic to mammals and slightly toxic to birds; 2,4-D is moderately toxic to birds and mammals. Because of the current limited distribution of Canada thistle infestations 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 black-footed ferret, bald eagle, 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 or time frames that would have any substantive influence on sensitive habitats and/or breeding activities of special status species.

*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 pose a threat to the integrity of downstream aquatic habitats that harbor special status species addressed in this document. Failure to treat these aggressive 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 entrenched, subsequent control of these weeds would almost surely 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:* See mitigation and stipulations in 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 BLM management. Recognizing the progressive deterioration of rangeland and aquatic habitats attributable to the proliferation of noxious weeds, a prominent indicator for determining Public Land health, management that minimizes noxious and undesirable weed expression in the overall plant community is consistent with the Land Health Standards. The proposed action complements this goal 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 below, 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. Overall the exposures on which the special status plants occupy are poor habitat for henbane and mullein 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 Canada thistle 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 no action alternative would negatively influence the Threatened, Endangered, or Sensitive plant species.

## **WASTES, HAZARDOUS OR SOLID**

*Affected Environment:* Under the proposed action 6lb. 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:* Any solid wastes generated by the proposed actions will be disposed of in accordance with federal, state, and local regulations.

## **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 numerous ephemeral drainages in the Piceance Basin through various USGS publications. The “Status of Water Quality in Colorado –2006” (CDPHE 2006b) and Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin

(CDPHE 2005a) were reviewed for information relating to surface water within the White River Resource Area. The Colorado Department of Public Health, Water Quality Control Commission, has adopted (Colorado Department of Public Health 2006) 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.

Newly promulgated Colorado Regulations Nos. 93 and 94 (CDPHE 2006c and 2006d, respectively) were reviewed for information related drainages within the White River Resource Area. Regulation No. 93 is the State's Section 303(d) list of water-quality-limited segments requiring Total Maximum Daily Loads (TMDLs). The 2006 303(d) list of segments needing development of TMDLs includes two segments within the White River - segment 9b, White River tributaries North and South Forks to Piceance Creek, specifically the Flag Creek portion (for impairment from selenium with a low priority for TMDL development) and segment 22, tributaries to the White River, Douglas Creek to the Colorado/Utah boarder, specifically West Evacuation Wash, and Douglas Creek (sediment impairments). Regulation 94 is the State's list of water bodies identified for monitoring and evaluation, to assess water quality and determine if a need for TMDLs exists. The list includes two White River segments (9b- Flag Creek, and 22- Soldier Creek) and two Yampa River segments (2- Yampa River, and 16- Little Snake River) Basin. Additionally, appendix D (Table 2-2) of the BLM-WRFO RMP/ROD lists perennial streams identified by the BLM as not meeting State Water Quality Standards.

*Environmental Consequences of the Proposed Action:* Drift into drainage bottoms or springs may occur, altering water quality temporarily. However, removal of noxious and invasive species such as Canada Thistle in drainage bottoms would allow desirable, native vegetation (which provides better soil stabilizing characteristics) a better chance to compete with undesirable species increasing bank stability and minimizing soil loss and salt loading to the Colorado River System. Use of best management practices outlined as mitigation in the proposed action would eliminate negative impacts in drainage bottoms imposed by the proposed action.

*Environmental Consequences of the No Action Alternative:* There would be no opportunity for drift of herbicides into riparian areas, surface waters or springs which would deteriorate water quality. However, noxious and invasive species which lack adequate soil stabilizing characteristics would proliferate in the uplands, drainage bottoms and riparian areas increasing potential erosion and salt loading to the Colorado River System.

*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.

*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. If Canada thistle is found in near a riparian community, the treatment would likely remove some beneficial riparian obligates. The proper selection and use of herbicides would decrease negative impacts to non-target species. With the mitigation and stipulations identified within the proposed action the actual opportunity for damage from herbicides is small.

*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. Canada thistle would be allowed to spread unabated dominating important riparian species.

*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 noxious weed detailed in this environmental assessment is highly adapted to riparian habitats and control of this species is critical to maintaining the health of the riparian system

## **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 Canada thistle 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 (if tire tracks persist) wilderness visitors 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, Canada thistle 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 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 Canada thistle would allow a more protective vegetative species to grow helping to reduce hill slope soil erosion as well as sedimentation and salt loading to surface waters within the Colorado River Basin.

*Environmental Consequences of the No Action Alternative:* Cover of Canada thistle 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. Canada thistle has been found in almost all of the vegetation associations in the field office. The greatest cover and density of Canada thistle is within riparian communities and are generally confined to these sites.

*Environmental Consequences of the Proposed Action:* 2,4-D/Tordon tank mix 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 Tordon/2,4-D's and Escort's specificity to broad leaf plants there would be a loss of native broadleaf species, annuals and perennial. Escort's 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:* Canada thistle 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:* Perennial streams that support aquatic habitats are distributed across the Resource Area. Of most concern are those supporting or contributing directly to fisheries, particularly those that support populations of Colorado River cutthroat trout (primarily the East Douglas drainage) or contribute to native fisheries in the White River. The cutthroat is a BLM sensitive species and one of high state concern. 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.

*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 invertebrates and fish are vulnerable to very low concentrations of 2,4-D in ester formulations (0.5 ppm LD<sub>50</sub> for fish, 1.5 ppm LD<sub>50</sub> 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. In contrast, metsulfuron methyl (Escort) appears to be practically non-toxic to fish and aquatic invertebrates (*Vegetation Treatment on BLM Lands, 1991*). Label consistent application of Escort poses virtually no toxic threat to aquatic wildlife, including amphibians, fish or macro invertebrates or to those resident birds and mammals that may be associated with riparian or aquatic systems.

Proposed safeguards (buffers) and application/label guidelines would reduce the potential for aquatic contamination. To more effectively reduce risk associated with aquatic communities it would be preferable to use metsulfuron methyl (Escort) in most situations where fisheries are involved or in areas that might be expected to contribute to downstream or adjacent aquatic habitats. To further limit the potential for damaging stream habitats supporting a fisheries, it is recommended that application equipment and calibrations (i.e. spray pressure and droplet size) 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) and stopping application of herbicide when rain showers are imminent or likely to occur within 3-4 hours. Specific project sites would be identified and applicable stipulations would be applied to individual Pesticide Use Proposals.

Consistent spot treatment of noxious weeds would sharply limit the development and/or influence of weed populations in aquatic communities. The presence of weeds on bank and floodplain features contributes to the instability of bank and incise walls by suppressing vegetation forms that provide effective erosion resistance. Left unattended, Canada thistle 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).

Woody riparian growth normally associated with properly functioning aquatic and riparian communities (e.g. chokecherry, dogwood, willow, cottonwood regeneration) is somewhat susceptible to damage by these herbicides. Because riparian woody growth is not only an integral feature of good condition riparian and aquatic habitats, but represents a desired end product of compatible grazing management, efforts should be taken to avoid or minimize involvement and damage to woody riparian shrubs and tree regeneration.

*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:* See mitigation and stipulations identified in 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 and 2,4-D are very slightly to moderately toxic to mammals and birds. Targeted weeds offer no attraction to wildlife as cover or forage. Because treatment areas would be small, generally associated with development facilities and concentrated human activity, and hold no attraction 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, restrictions on motorized application equipment and approach to the nest site would be applied until nest functions are complete.

Nongame and small game mammal and bird populations tend to be more abundant and diverse as vegetation volume and stratification increase. Because these weeds have no functional value as foraging or nesting substrate and suppress native vegetation by dominating sites of infestation, the likelihood of control activities substantially involving reproductive habitats or functions of nongame and small game wildlife is low. Short duration and 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. 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 Canada thistle infestations, although not now exerting any marked influence on adjacent rangeland communities, represent potential for exponential spread and becoming an influential herbaceous component. Canada thistle's growth habitat is 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 roadside situations is vastly superior to the alternative of widespread herbicide application across the landscape and its functional wildlife habitats.

*Mitigation:* See mitigation and stipulations identified in 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. Recognizing the progressive deterioration of rangeland habitats attributable to the proliferation of noxious weeds, a prominent indicator for determining Public Land health involves management that minimizes noxious and undesirable weed expression in the overall plant community. The proposed action

complements this goal 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   |
| Noise                     | 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:* Canada thistle has been found adjacent to aspen and Douglas-fir stands in the Douglas Pass area. This noxious weed has not been shown to affect the trees but does significantly impair the health of understory species forest.

*Environmental Consequences of the Proposed Action:* 2,4-D, Tordon have 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.

*Environmental Consequences of the No Action Alternative:* Canada thistle would continue to spread through forest stands dominating under story species.

*Mitigation:* None

## **HYDROLOGY AND WATER RIGHTS**

*Affected Environment:* Located in the White River field office are over 700 inventoried springs and associated water rights.

*Environmental Consequences of the Proposed Action:* Impacts from the proposed action are not anticipated if the mitigation and stipulations that are proposed are adhered to.

*Environmental Consequences of the No Action Alternative:* Impacts from not permitting the proposed action are not anticipated.

*Mitigation:* No additional mitigation is needed if the applicants adhere to the mitigation and stipulations presented in the proposed action.

## **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 formations 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 Canada thistle are on moist upland sites or riparian areas.

*Environmental Consequences of the Proposed Action:* 2,4-D, Tordon 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 Canada thistle is critical to maintaining the forage resource on which livestock operations are dependant. There have been no studies or personal observations where Canada thistle has been controlled by grazing management alone. Without direct control this noxious weed would spread readily and increase in ground cover. As Canada thistle 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. Canada thistle does not 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 Canada thistle while 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 browse 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 Canada thistle

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.

**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). 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>.

BLM (1979). Interim Management Policy and Guidelines for Lands Under Wilderness Review. U.S. Department of the Interior.

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.

**INTERDISCIPLINARY REVIEW:**

| <b>Name</b>        | <b>Title</b>                | <b>Area of Responsibility</b>  |
|--------------------|-----------------------------|--|
| Nate Dieterich     | Hydrologist                 | Air Quality, Water Quality, Surface and Ground, Hydrology and Water Rights, Soils                              |
| Tamara Meagley     | Natural Resource Specialist | Areas of Critical Environmental Concern, Threatened and Endangered Plant Species                               |
| Michael Selle      | Archaeologist               | Cultural Resources, Paleontological Resources  |
| Robert Fowler      | Forester                    | Invasive, Non-Native Species, Wetlands and Riparian Zones, Vegetation, Forest Management, Rangeland Management |
| Ed Hollowed        | Wildlife Biologist          | Migratory Birds, Terrestrial and Aquatic Habitat, Threatened, Endangered and Sensitive Animal Species          |
| Tom E. Johnson     | Hydrologist                 | Wastes, Hazardous or Solid   |
| Chris Ham          | Wilderness Specialist       | Wilderness, Recreation, Access and Transportation, Visual Resources  |
| Ken Holsinger      | Natural Resource Specialist | Fire Management  |
| Pamela Leschak     | Geologist                   | Geology and Minerals   |
| Penny Brown        | Realty Specialist           | Realty Authorizations  |
| Melissa J. Kindall | Range Technician            | Wild Horses  |

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

**CO-110-2007-076-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 approve the proposed action for the control of Canada thistle using herbicidal control. This alternative is subject to the mitigation, stipulations, and safeguard measures identified in proposed action and the Final Environmental Impact Statement Vegetation Treatment on BLM Lands in Thirteen Western States (1991). With the 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 2-4 of the EA.

**NAME OF PREPARER:** Robert Fowler

**NAME OF ENVIRONMENTAL COORDINATOR:** Caroline Hollowed

**SIGNATURE OF AUTHORIZED OFFICIAL:**



Field Manager

**DATE SIGNED:**

04/06/07