

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2008-110-EA

PROJECT NAME: Perennial Pepperweed and Hoary Cress Treatment Using Telar

LEGAL DESCRIPTION: T. 3N R. 97W
Section 9, 13, 14, 17, 18
T. 3N R. 96W
Section 8
T. 4N R. 100W
Section 4, 24, 25, 28, 36

APPLICANT: Bureau of Land Management White River Field Office

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction The purpose of this project is to initiate control of Perennial Pepperweed (*Lepidium latifolium*) and Hoary Cress (*Cardaria draba*), collectively referred to as whitetop, in Deep Channel, Crooked Wash, and Wolf Creek, using aerial treatments of Telar XP along with the surfactant Agri-Dex. The Rio Blanco County (RBC) weed program has been spraying private lands in the Deep Channel drainage for the last two years and in 2008, BPS funds were secured to treat Bureau of Land Management (BLM) lands along Deep Channel, Crooked Wash, and Wolf Creek.

Previous environmental assessments (EAs) addressing the control of whitetop were CO-017-98-074-EA and CO-110-06-122-EA. In environmental assessment (EA) CO-WRFO-98-074-EA the use of grazing was analyzed as a control for whitetop, and CO-110-06-122-EA analyzed the use of Escort as a control for whitetop. Currently, whitetop species are found in Yellow Creek, Duck Creek, Wolf Creek, Deep Channel, Crooked Wash, the White River, and Douglas Creek.

Proposed Action: Under this alternative an aerial application of Telar XP along with the surfactant Agri-Dex would be used to control whitetop. Application would be done by a combination of fixed-wing aircraft, helicopter, truck mounted sprayer, ATV sprayer, Solo backpack sprayer, and Buffalo turbine backpack sprayer. All spraying will be under the control of a BLM Certified herbicide applicator, and the method of herbicide application would be dependant on the size and location of the weeds to be treated. Control of whitetop by digging is not practical because of their perennial character and extensive root systems.

The specific herbicide to be used is Telar XP. Active ingredients are Chlorsulfuron at 75% and inert ingredients of 25 %. The application rate would be 2.0 ozs A.I./acre. This herbicide is used in conjunction with a surfactant to improve penetration through the leaf surface. The surfactant Agri-Dex which is 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

A Pesticide Use Proposal would be prepared with the specific information on each of these sites. Spraying will not take place over flowing water, and will not take place within 3-4 hours of imminent rainfall and it is expected there could be flowing water.

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.
- 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. Potential habitats would be inventoried for absence of sensitive plants prior to any herbicidal use should manual control prove ineffective.
- Although product selection and label and BLM-imposed application measures are presently considered adequate to prevent adverse affect on animal and plant communities associated with the 100-year floodplain of the White River, extensive weed treatments on the river floodplain or in large channels contributing to the White River's aquatic habitats will require the review and concurrence of the USFWS through the Section 7 consultation process.
- No aerial application of Telar XP with the surfactant Agri-Dex will be permitted within boundary of any ACEC established for the management of threatened, endangered, or BLM sensitive plant species. All applications of this herbicide will be relegated to spot treatment utilizing back pack sprayers or truck mounted sprayers on designated roads or trails within the ACECs.

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.
- To prevent disturbance of cultural resources vehicle access will be restricted when soils are saturated to the point of leaving ruts more than 1 inch deep.

No Action Alternative: Under this alternative, efforts would not be taken to control Hoary Cress and Perennial Pepperweed in the Deep Channel, Crooked Wash, and Wolf Creek drainages.

NEED FOR THE ACTION: In the White River Resource Area, the whitetop 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 and rhizomes. Whitetop's are associated with moister sites including riparian areas.

Both whitetop species are perennial spreading by seed and rhizomes. The 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 whitetop 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 air pollutants, and most of the area has been designated for the prevention of significant deterioration (PSD) class II. Unfortunately, no air quality monitoring data is available for this area. However, air quality conditions near the proposed location (Grand Junction, CO) indicate generally good air quality.

Environmental Consequences of the Proposed Action: no impacts are expected.

Environmental Consequences of the No Action Alternative: Impacts from the no-action alternative would be similar to the proposed action alternative except there may be less windblown dust particles if the vegetation treatment is successful.

Mitigation: None

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: The Duck Creek ACEC is 3,950 acres of public land providing habitat for the largest populations of Dudley Bluffs bladderpod (*Physaria congesta*) a Federal threatened plant species and several significant archeological sites. The ACEC was established through the White River Resource Management Plan and designated on July 1, 1997. The proposed action could potentially involve herbicide treatment in the Duck Creek ACEC, as there are small infestations of whitetop scattered throughout Duck Creek above the ACEC boundary and at the confluence with Yellow Creek.

Environmental Consequences of the Proposed Action: The infestations of whitetop that occur within the Duck Creek and Yellow Creek watersheds appear to be relegated to the channel proper and to a lesser extent the uplands adjacent to the channel. Whitetop has not been observed establishing on the xeric shale barrens which provide habitat for *Physaria congesta* within the Duck Creek ACEC. There are small infestations of whitetop that have historically occurred within the ACEC however those infestations have remained small enough to be treated with back pack sprayers or truck mounted sprayers using escort for control. Continued eradication programs utilizing more effective herbicides approved for use on BLM administered lands, such as Telar XP along with the surfactant Agri-Dex, for invasive species such as whitetop is considered an activity that is necessary to continue to manage for the values for which the ACEC was established. Aerial application of Telar XP will have detrimental impacts to *Physaria congesta* as the species is in the Brassicaceae family as are both species commonly referred to as whitetop. While whitetop has not been observed growing with *Physaria congesta* drift of the herbicide could transport Telar onto populations which would certainly result in loss of individuals that come in contact with the herbicide or segments of the population if the application were inadvertently directly applied on populations.

Environmental Consequences of the No Action Alternative: The BLM approved herbicide Telar XP or Agri-Dex would not be permitted on lands managed by the White River Resource area and thus would not be utilized to control invasive species within the Duck Creek ACEC or any other ACEC within the resource area.

Mitigation: As conditioned, the proposed action contains mitigation to minimize potential impacts to the resources for which a given ACEC has been designated.

CULTURAL RESOURCES

Affected Environment: A broad range of cultural resources are known to occur within the various drainages where the proposed herbicide application is to occur. Sites include historic features and structures, historic refuse dumps, proto-historic camp sites and resource collection sites, various prehistoric camp sites and possibly lithic raw material quarries.

Environmental Consequences of the Proposed Action: Spraying of herbicide, in and of itself, has very little effect on cultural resources, especially if the herbicide has a short half life

and should not radically alter the chemical nature of any remains that may be present. However, off road vehicle travel, regardless of the size of the vehicle, and especially if the ground is wet, has the potential to create severe impacts to previously undetected cultural resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to Cultural Resources under the No Action Alternative.

Mitigation: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The Deep Channel, Crooked Wash, and Wolf Creek areas range from alkaline slope to salt desert shrub range sites. Perennial pepperweed is generally an obligate of riparian zones or the terraces immediately above the riparian areas. This weed has also been found growing around stock ponds and large mud puddles. Hoary cress has a wider range of habitats and may be adapted to most of the plant communities in the resource area. Both of these species are aggressively spread by both seeds and rhizomes.

Environmental Consequences of the Proposed Action: Under the proposed action there would not be any seeding of treated areas, and therefore would not be any opportunity for introduction of non-native plant species.

There is concern that control efforts could spread seeds of whitetop. Follow up spot treatments may need to be conducted after aerially spraying the area and if possible vehicles will not enter the infested area but will stay on the perimeter. The applicators will need to pay attention to mud on shoes and seeds clinging to apparel.

Environmental Consequences of the No Action Alternative: Under the no action alternative, whitetop would not be controlled. There would also not be any seeding or any opportunity for introduction of non-native invasive species. Whitetop 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 whitetop increased. Failing to control whitetop would provide a seed source for adjacent allotments.

Mitigation: No additional mitigation is recommended.

MIGRATORY BIRDS

Affected Environment: The general project area consists of sagebrush shrublands and pinyon-juniper woodlands. Sagebrush provides nesting habitat for species such as Brewer's sparrows (*Spizella breweri*), sage sparrows (*Amphispiza belli*), and vesper sparrows (*Pooecetes gramineus*). Pinyon-juniper woodlands provide nesting habitat for species such as gray flycatchers (*Empidonax wrightii*), pinyon jays (*Gymnorhinus cyanocephalus*), and black-throated gray warblers (*Dendroica nigrescens*).

There are no specialized or narrowly endemic species known to inhabit the allotment. However, the U.S. Fish and Wildlife Service (USFWS) recognizes several species that inhabit the allotment as being "birds of conservation concern" (including black-throated gray warblers, Brewer's sparrows, pinyon jays, and sage sparrows). The BCC list identifies birds that, without conservation actions, may become candidates for listing under the Endangered Species Act.

Environmental Consequences of the Proposed Action: Telar XP (acute oral LD₅₀ for mallard duck and bobwhite quail > 5000 mg/kg) has a low toxicity for birds so ingestion due to direct application or drift onto forage resources is not expected to be an issue. Disturbance to nesting birds due to actual herbicide application is expected to be localized and of short duration and thus would have a lower probability of disrupting nesting efforts of birds within the general project area. Since the weeds suppress native vegetation and can be detrimental to riparian habitats, disturbances associated with application are considered a desirable trade-off in preventing continued expansion of the weeds.

Environmental Consequences of the No Action Alternative: If herbicide were not applied to the treatment areas, there would be no potential for breeding activities of migratory birds to be disturbed by during weed control work. However, if left untreated it is likely that the weeds would continue to spread and increase the probability of substantial resource damage,

particularly to drainages and riparian areas that provide important habitat for several special status wildlife species.

Mitigation: None.

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

Affected Environment: The Colorado pikeminnow (*Ptychocheilus lucius*) is listed as endangered under the Endangered Species Act. The White River and its 100-year flood plain from Rio Blanco Lake Dam to the confluence with the Green River are designated as critical habitat, although present occupation is confined to the reach below the Taylor Draw dam.

Northern leopard frogs (*Rana pipiens*), a BLM sensitive species, have been documented in Crooked Wash and also likely inhabits Deep Channel Creek.

Colonies of white-tailed prairie dogs (*Cynomys leucurus*) occur on the uplands in the project area. White-tailed prairie dogs are currently undergoing a 12-month review by the U.S. Fish & Wildlife Service to determine if they should be listed as either threatened or endangered under the Endangered Species Act. It is possible that burrowing owls (*Athene cunicularia*) breed and nest on these prairie dog towns.

Environmental Consequences of the Proposed Action: The proposed action is expected to have no effect on Colorado pikeminnow populations or its critical habitat. There are five identified herbicide treatment areas along Deep Channel Creek and associated drainages. The western most treatment area on Deep Channel Creek is approximately 53 km upstream from the Taylor Draw dam, which is the closest known area currently occupied by the Colorado pikeminnow. Additionally, both Telar XP (96 hour LC₅₀ for sheepshead minnow > 980 mg/L) and the adjuvant Agridex (96 hour LC₅₀ for rainbow trout 271 mg/L; 96 hr LC₅₀ for bluegill >1000 mg/L) have low toxicity to fish species. Finally, no herbicide application will take place over flowing water or when there is a likelihood of flowing water (e.g. prior to a rain event).

Amphibians are often more sensitive to contaminants than either fish or terrestrial wildlife species. Not applying herbicide to flowing water or when there is a likelihood of flowing water minimizes potential impacts to frogs.

White-tailed prairie dogs would likely be negatively impacted if herbicide application were to occur on active colonies. Toxicity of both Telar XP (oral LD₅₀ for rats > 2000 mg/kg) and the adjuvant Agridex (oral LD₅₀ for mammals > 5.01g/kg) is low for mammals and prairie dogs are not expected to be negatively influenced by consuming herbicide directly or by consumption of treated vegetation. However, Telar XP is a general herbicide and is expected to substantially impact available forage resources if applied on active prairie dog colonies. Most of the target treatment areas are within drainages where there are no prairie dog burrows. To further minimize the impacts to white-tailed prairie dogs, no herbicide application will occur on active prairie dog

colonies. These colonies are currently being mapped by BLM biologists and maps of the colony perimeters will be provided as areas to avoid.

Environmental Consequences of the No Action Alternative: If the proposal to apply Telar XP whitetop infestations was denied, then there would be no potential for exposing special status species to herbicide either directly or through drift. However, failure to control these weeds now will undoubtedly lead to dissemination of seed downstream and possible expansion into upland habitats. Weed proliferation in drainages and riparian areas can displace erosion resistant bank vegetation, increase sedimentation, and interfere with natural channel restoration processes. Managing the White River's 100-year flood plain so that it is in proper functioning condition is essential to managing critical habitat for the Colorado pikeminnow.

Withholding weed treatments may also negatively influence white-tailed prairie dog colonies in the area. Currently weed infestations are limited to riparian areas and drainages and can be effectively treated without applying herbicide to colonies. If weeds spread onto upland benches, it would be necessary to apply herbicide to colonies which could negatively impact white-tailed prairie dog populations.

Mitigation: As conditioned, the proposed action contains mitigation to minimize potential impacts to aquatic wildlife (e.g. no application over flowing water, minimizing drift potential, etc) including northern leopard frogs and Colorado pikeminnow.

White-tailed prairie dogs may be negatively impacted by a substantial reduction in available forage resources if herbicide application were to occur on active colonies. To minimize impacts to prairie dogs, no application will occur on white-tailed prairie dog colonies. BLM biologists are in the process of mapping these colonies and will provide maps of areas to avoid.

Finding on the Public Land Health Standard for Threatened & Endangered species: On a landscape scale, the project area currently meets public land health standards for special status species. It is expected that treating perennial pepperweed and hoary cress weeds would aid in maintaining public land health standards. If the weeds are not treated, riparian conditions would likely degrade and upland sites may also become infested.

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

Affected Environment: There are no plant species listed, proposed, or candidate to the Endangered Species Act, nor plants considered sensitive by the BLM, that are known to inhabit areas potentially influenced by the proposed action in Wolf Creek, Deep Channel, Crooked Wash, the White River, or Douglas Creek. There are extensive populations of Dudley Bluffs bladderpod (*Physaria congesta*) found from the confluence of Big and Little Duck Creeks to the confluence of Duck Creek with Yellow Creek and extending approximately 7 miles downstream. There are also several populations of Dudley Bluffs Twinpod (*Physaria obcordata*) found in Yellow Creek below the confluence with Duck Creek extending approximately 7 miles downstream. Both species are listed as threatened under the Endangered Species Act.

Environmental Consequences of the Proposed Action: Invasive species present real and ever increasing threats to population stability for many rare plant species that occur within the White River Resource Area. As such aggressive weed management programs are necessary to ensure population stability for both *Physaria obcordata* and *Physaria congesta*. There are currently small infestations of Perennial Pepperweed (*Lepidium latifolium*) and/or Hoary Cress (*Cardaria draba*) (whitetop) high up in the Duck Creek watershed with small isolated infestations downstream on private lands owned by Shell. Small patches of Hoary Cress have occurred on Duck Creek within the ACEC boundary which has been treated each of the last two years, with backpack sprayer and the herbicide Escort. The infestations of whitetop that occur within the Duck Creek and Yellow Creek watersheds appear to be relegated to the channel proper and to a lesser extent the uplands adjacent to the channel. Whitetop has not been observed establishing on the xeric shale barrens which provide habitat for *Physaria congesta* and *Physaria obcordata* thus there will be no Telar application directly within occupied habitat for the species.

Telar XP is acutely toxic to both *Physaria congesta* and *Physaria obcordata* as both species are in the Brassicaceae family which is the same plant family as Perennial Pepperweed and Hoary Cress. In accordance with the biological opinion developed by the Fish and Wildlife Service in response to the BLM Vegetation Treatments Using Herbicides Final Programmatic EIS a 1,400 foot buffer will be maintained to minimize risk from off-site drift for aerial application of Chlorsulfuron (Telar XP), and a 1,000 buffer will be maintained for herbicide equipment dispensing Chlorsulfuron > 20in. (boom truck) above the ground from nearest populations of either *Physaria congesta* or *Physaria obcordata*. Telar XP could be used within these buffers at the low rates described on the label for spot application (truck mounted hand sprayer, backpack sprayers, or wick applicators) of whitetop under the guidance of the resource area special status plants specialist, outside of occupied habitat for both species. Provided these buffers are strictly adhered to the proposed action is expected to have no effect on *Physaria congesta* or *Physaria obcordata*.

Environmental Consequences of the No Action Alternative: If the proposal to apply Telar XP whitetop infestations were denied, then there would be no potential for exposing special status species to herbicide either directly or through drift. However, failure to effectively control perennial pepperweed and hoary cress now would undoubtedly lead to dissemination of seed downstream and possible expansion into occupied habitats for special status plants.

Mitigation: Survey for special status plants species before treating an area.

A buffer distance from Threatened, Endangered, and BLM sensitive plant populations will be maintained to minimize risk from off-site drift as follows:

- Aerial Application 1,400 feet
- Low/High Boom 1,000 feet
- Telar application can be done within these buffers under the guidance of the resource area special status plants specialist, outside of occupied habitat.

Limit the aerial application of chlorsulfuron to areas with difficult land access, where no other means of application are possible.

Use drift reduction agents to reduce the risk of off-site drift.

Finding on the Public Land Health Standard for Threatened & Endangered species: On a landscape scale, the project area currently meets public land health standards for special status species. It is expected that treating perennial pepperweed and hoary cress weeds would aid in maintaining public land health standards. If the weeds are not treated, riparian conditions would likely degrade and upland sites may also become infested.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area. There are no known solid waste dump sites within the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels, pesticides, and lubricants proposed for use may contain some hazardous constituents, they would be stored, used, and transported in a manner consistent with applicable laws, and the generation of hazardous wastes would not be anticipated. All applications of pesticides would be in compliance with BLM requirements, as per the 2007 vegetation EIS analyzing “Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States”.

For both workers and the general public most exposures to chlorsulfuron (the active ingredient in Texlar XP) at the typical or maximum application rate would not pose a risk (BLM, 2007). There is the potential of eye or skin irritation from the mishandling of this chemical.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions. If any hazardous chemicals, fuels, oils, lubricants, and/or noxious fluids are spilled during field activities, they shall be cleaned up immediately and disposed of at an approved waste disposal facility.

A release of any chemical, oil, petroleum product, or sewage, etc, (regardless of quantity) must be reported to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800. The Colorado Department of Public Health and Environment (CDPHE) should be notified, if applicable, through the 24-hour spill reporting line at 1 (877) 518-5608.

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

Affected Environment: This project would treat 5 separate areas within the Crooked Wash watershed in Deep Channel Creek drainage. Perennial Pepperweed and Hoary Cress (types of Whitetop) are list B noxious weeds as designated on the state of Colorado noxious weed list. This treatment will focus on Perennial Pepperweed which can reach 1 to over 3 feet in height and is broad leafed.

Environmental Consequences of the Proposed Action: Accidental direct spray or spilling of chlorsulfuron poses a moderate to high risk to terrestrial plants and aquatic plants in streams. It is persistent and mobile in some soils. Accidental spills in ponds pose a moderate risk to aquatic plants, but off-site drift presents low to moderate risk to non-target terrestrial plants. In aquatic environments the fate of chlorsulfuron is related to pH and temperature. Aquatic dissipation can occur from 24 days to more than 365 days depending on its conditions are anaerobic. Aquatic plants in streams are not at chronic risk under any scenarios of proper use of chlorsulfuron (BLM, 2007).

Chlorsulfuron is not known as a groundwater contaminant, but has a high potential to leach into the groundwater, however it has a low potential to be transported in surface water. Application rates and use as proposed is unlikely to result in groundwater contamination and with the low potential for surface transport, it is unlikely that chlorsulfuron will impact untreated areas downstream.

Environmental Consequences of the No Action Alternative: None identified.

Mitigation: none

Finding on the Public Land Health Standard for water quality: Not likely to cause or contribute to an exceedance of State water quality standards.

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

Affected Environment: The White River ROD/RMP lists high and medium priority riparian habitats in table 2-9 and 2-10, Appendix D along with functioning condition, acres and ecological condition. Wolf creek is listed as a medium priority riparian habitat that is functional at risk. Wolf Creek is an ephemeral channel with sagebrush and greasewood in the channel with intermittent coyote willows. Wolf Creek is proposed for treatment starting at Highway 40 and working to the top of the infestation near Peterson Draw. Spraying would be done aurally with follow-up spot treatments using 4-wheelers, UTV's, and supported by truck mounted sprayers.

A cooperative approach is being used to control Deep Channel and Crooked wash because of the large percentage of private lands involved. These drainages are ephemeral drainages dominated with sagebrush and greasewood. Rio Blanco County had been spraying private lands within the deep channel and crooked wash drainages for the last several years, and funding has been acquired by the BLM to spray BLM lands within these drainages starting in the summer of 2008.

Environmental Consequences of the Proposed Action: During preparation of the 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 are 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 plants which are susceptible to Escort may be damaged or killed, depending on the concentration and the non-target susceptibility. It is expected that there will be a short-term decrease in stream bank stability due to large scale treatments of perennial pepperweed and Hoary Cress in the drainages where they dominate the vegetative cover. However, long-term increased bank stability would be expected when native vegetation re-establishes with more robust root structures to hold the soils in place.

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. Whitetop would proliferate and dominate the stream bank and upper terrace. The protection of stream banks provided by whitetop is expected to be far less than adapted native communities, overall decreasing stream bank stability, increasing width/depth ratios, and overall lowering the effectiveness of the riparian area to manage flood flows.

Mitigation: None

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 two noxious weeds detailed in this environmental assessment are adapted to riparian habitats and exert great influence on the development of the herbaceous component. In general the riparian herbaceous component is resistant to herbicide application, as are willows where the foliage is avoided. The proposed action would positively affect riparian areas. The no action alternative would allow whitetop to proliferate throughout the area decreasing productivity. The no action alternative would allow noxious weeds to increase within riparian areas which is not in compliance with the “vigorous, desirable plants are present” indicator for the riparian health standard.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers exist within the area affected by the proposed action. 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: The Deep Channel and Crooked Wash drainages are deeply incised or gullied along most of the drainages. The soils are generally deep well drained clay loams or loams with a high runoff classification. These soils will easily erode in heavy precipitation event if there is not adequate vegetative cover and litter to anchor soils in place. In undisturbed sites with native vegetative communities in place, erosion potential is greatly decreased.

Environmental Consequences of the Proposed Action: Chlorsulfuron is persistent and mobile in some soils; it can remain active in soils for up to 1 year. Chlorsulfuron rapidly degrades in acidic soils by chemical hydrolysis and then by biodegradation (BLM, 2007). Most of the soils in the project area are alkaline or saline clays and loams, therefore chlorsulfuron can be expected to persist in these soils for up to 1 year.

Environmental Consequences of the No Action Alternative: None identified.

Mitigation: None identified.

Finding on the Public Land Health Standard for upland soils: Although chlorsulfuron can be expected to persist in these soils for up to one year it is unlikely to inhibit terrestrial vegetation that is not targeted. Long-term soil productivity over one year is not likely to be impacted and successful treatment of areas will increase the native vegetation which in the long-term will increase the soil productivity of the treated sites.

VEGETATION (includes a finding on Standard 3)

Affected Environment: Treatment areas within the Crooked Wash and Deep Channel mainly consist of clayey foothill, stony foothill, alkaline slope, and foothill swale ecological sites. The potential plant community on these units is mainly western wheatgrass, prairie junegrass, big sagebrush, and low rabbitbrush. Smaller amounts of Indian ricegrass and milkvetch can also be present. The production of forage is limited by slow permeability, rapid runoff, and restricted rooting depth. The current vegetative composition in the project areas understory is dominated in large areas by annual grasses (*Bromus tectorum*) and forbs. There is expression of native perennial vegetation in the project area, however historical grazing practices in combination with drought over the last several years has increased the cover of weedy and invasive annuals.

The Wolf Creek treatment area is mainly in the salt desert overflow, clayey loam, and the semidesert clay loam ecological sites. The potential plant community on this unit is mainly alkali sacaton, galleta, Indian ricegrass, basin wildrye, western wheatgrass, black greasewood, basin big sagebrush, and fourwing saltbush. Parts of this treatment area are also dominated by weedy annual species. Cheatgrass (*Bromus tectorum*) is present/dominant in portions of the understory along with some annual mustards and pepperweed.

Environmental Consequences of the Proposed Action: At the intended rate, Telar XP can have an impact on native perennial vegetation in the treatment area. However, the intended areas of treatment in the drainage bottoms and the first terrace are almost purely dominated by perennial pepperweed and invasive annuals, therefore treatments should have minimal impact on native vegetation in the area. Successful treatments should result in long-term increases in native vegetation and associated soil stability. Native perennials that are adapted to the site have more robust root structures and an increased capability to hold soils in place. This will result in decreased overland flow and erosion of soils.

Environmental Consequences of the No Action Alternative: As a result of uplands in the area having a large component of non-native/invasive annuals, this increases the potential for other weeds to establish. Currently the infestation of perennial pepperweed is in drainage bottoms and the first terrace, but there have been other locations where perennial pepperweed has started to invade uplands. With the current conditions of uplands in the project area, there is a potential for whitetop to start moving into those areas if it is not treated. It is also expected that whitetop would continue to move down the drainages toward the White River if some treatment does not take place.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Perennial Pepperweed and Hoary Cress are list B noxious weeds as designated on the state of Colorado noxious weed list. Controlling noxious weed is an integral part of meeting Colorado land health standards. Currently with the infestation of whitetop in the drainages and the invasive annuals in the uplands, there are parts of the project area that are not meeting land health standards for vegetation. Successful implementation of this project would aid in moving these lands toward meeting land health standards.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Since northern leopard frogs and Colorado pikeminnow are special status species, please refer to the Threatened, Endangered, and Sensitive Animal Species section for a thorough discussion on aquatic wildlife species, potential impacts associated with the proposed action, and a discussion on the Public Land Health Standards for aquatic communities.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: There are no narrowly endemic or highly specialized terrestrial wildlife species that inhabit the general project area. Some or all of the treatment parcels are used year-round by elk (*Cervus canadensis*) and mule deer (*Odocoileus hemionus*). The pinyon-juniper woodlands in three of the treatment parcels may provide nesting habitat for raptors such as Cooper's hawks (*Accipiter cooperii*).

In 2005, CDOW commissioned a study to identify declining sagebrush-dependent wildlife species that are currently not covered under other conservation plans. Two small mammals, the sagebrush vole (*Lemmiscus curtatus*) and Merriam’s shrew (*Sorex merriami*), were identified as species of potential concern (Boyle and Reeder 2005) due to their association with sagebrush and the limited knowledge of their natural history and population status.

Environmental Consequences of the Proposed Action: Telar XP has a low toxicity for birds (acute oral LD₅₀ for mallard duck and bobwhite quail > 5000 mg/kg) and mammals (oral LD₅₀ for rats > 2000 mg/kg) so ingestion due to direct application or drift onto forage resources is not expected to be an issue. Although chemical treatment would likely suppress or destroy desirable vegetation interspersed with weeds, timely control of small or confined infestations would ultimately benefit wildlife by minimizing the extent of subsequent herbicide treatment and maintaining the diversity and productivity of affected sites. Summer control activities would be of short duration and are not expected to seriously disrupt use of the general project area by big game species or raptors.

No herbicide application is anticipated in pinyon-juniper woodlands but it is possible that motorized application equipment (e.g. ATV, helicopter) may affect nearby raptor nests. In the event that raptor nests are discovered within treatment areas, restrictions on motorized application equipment and approaches to the nest site would be applied until young have fledged.

Environmental Consequences of the No Action Alternative: If herbicide were not applied to the treatment areas, there would be no potential for loss of desirable vegetation due non-specific herbicides or for exposure of wildlife species to chlorsulfuron. However, if left untreated it is likely that the weeds would continue to spread and increase the probability of substantial resource damage, particularly to drainages and riparian areas that provide important habitat for several special status wildlife species.

Mitigation: See raptor nest mitigation identified in the proposed action.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): On a landscape scale, the project area currently meets public land health standards for terrestrial wildlife. It is expected that treating perennial pepperweed and hoary cress weeds would aid in maintaining public land health standards by controlling the spread of these weeds into adjacent uplands or downstream aquatic systems.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

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		

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

RANGELAND MANAGEMENT

Affected Environment: The proposed action will occur on multiple grazing allotments within the White River Resource Area. The Deep Channel goes through the Keystone (06605) allotment and the McAndrews Gulch (06600) allotment and the Crooked Wash treatments will take place on the McAndrews Gulch allotment. These allotments are both summer/fall cattle allotments.

Treatments in Wolf Creek will occur on the Horse Draw (06332) allotment and the Wolf Creek pasture of the Wolf Creek (06323) allotment. The Horse Draw allotment is a common allotment that is used as a spring cattle allotment and a winter sheep allotment. The Wolf Creek allotment is a strictly a summer/fall cattle allotment.

Environmental Consequences of the Proposed Action: Treatment of these drainages is planned for mid-summer, and cattle will be present in all of the allotments except for the Wolf Creek pasture of the Wolf Creek allotment at the time of spraying. Chlorsulfuron which is the active ingredient in Telar has a low level of concern (LOC) and the direct spray of this ingredient is not likely to pose a risk to livestock. Based on label directions, there are no restrictions on livestock use of telar. If the herbicide is used properly, this treatment could have a long-term benefit to livestock grazing within the affected allotments by controlling unpalatable invasive plant species and promoting growth of native perennials that have a higher forage value.

Environmental Consequences of the No Action Alternative: In the short-term, there would be minimal impacts to grazing. However, the no action alternative could result in a long-term loss of AUMs on each of these grazing allotments. Currently whitetop is limited to the channel bottoms and first terrace of these grazing allotments, but there is the possibility of it spreading into the uplands. This would result in a loss of palatable forage on the rangelands and an overall decrease in available AUM's should this occurs.

Mitigation: None

CUMULATIVE IMPACTS SUMMARY: The proposed action is an effort to transition a degraded ecological site consisting of perennial, non-native, and invasive plant species (i.e. perennial pepperweed and hoary cress) to a functional state of desirable native perennial plants. These sites for treatment are currently not meeting Public Land Health Standards for riparian communities, and are not rated as proper functioning condition.

With successful re-vegetation of desired plant communities as outlined in the proposed action, it will cumulatively create a situation for a favorable transitional state change for plant communities within the treatment area.

Under the no action alternative, perennial pepperweed and hoary cress populations would continue to dominate the drainage bottoms within their degraded state that does not meet Public Land Health standards. There is also potential for these species to start invading uplands, thus there is a potential for a cumulative impact of the continuation of whitetop spread into other plant communities.

The proposed action is to control whitetop and other invasive plant communities using Chlorsulfuron (Telar XP). The use of herbicides is carefully controlled to protect the environment, public, and the applicators. This Environmental Assessment (EA) provides flexibility to use the method which best meets the treatment site and environmental considerations.

There are no known adverse cumulative impacts to any of the resources discussed in this document in consideration of all mitigation measures proposed in this EA, the Colorado Record of Decision for Vegetation Treatment on BLM Lands in Thirteen Western States, the Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States Programmatic EIS, and the pesticide labels for Telar XP. All mentioned documents will be strictly adhered to prevent any undue resource degradation.

REFERENCES CITED:

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.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Bob Lange	Hydrologist	Air Quality, Wastes (Hazardous or Solids), Water Quality (Surface and Ground), Hydrology and Water Rights, and Soils
Ken Holsinger	Botanist	Areas of Critical Environmental Concern Threatened and Endangered Plant Species
Michael Selle	Archeologist	Cultural Resources, Paleontological Resources
Matthew Dupire	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management, Wetlands and Riparian Zones
Heather Sauls	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Terrestrial and Aquatic Wildlife,
Chris Ham	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation, Visual Resources
Jim Michels	Prescribed Fire/Fuels Technician	Fire Management
Jim Michels	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Penny Brown	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Visual Resources
Melissa J. Kindall	Range Technician	Wild Horses

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

CO-110-2008-110-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analysis of the environmental effects of the proposed action have been reviewed. The proposed action, subject to the approved mitigation measures (listed below), results 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/RATIONALE: It is my decision to implement the proposed action for the control of Hoary Cress and Perennial Pepperweed using Telar XP. This alternative is approved subject to the mitigation, stipulations, and safeguard measures identified in the proposed action and the Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States programmatic Environments Impact Statement (2007). With the stipulations, mitigation, and safeguard measures, the potential impacts from implementing the proposed action are expected to be minimal. Control of noxious weeds using herbicides is in compliance with the White River Resource Area ROD/RMP which identifies an objective to “Manage noxious weeds so that they no further negative environmental, aesthetic, or economic impact”.

MITIGATION MEASURES:

- 1) White-tailed prairie dogs may be negatively impacted by a substantial reduction in available forage resources if herbicide application were to occur on active colonies. To minimize impacts to prairie dogs, no application will occur on white-tailed prairie dog colonies. BLM biologists are in the process of mapping these colonies and will provide maps of areas to avoid.

- 2) The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
 - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for

whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

- 3) Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
- 4) Survey for special status plants species before treating an area. A buffer distance from Threatened, Endangered, and BLM sensitive plant populations will be maintained to minimize risk from off-site drift as follows:
 - Aerial Application 1,400 feet
 - Low/High Boom 1,000 feet
 - Telaar application can be done within these buffers under the guidance of the resource area special status plants specialist, outside of occupied habitat.Limit the aerial application of Chlorsulfuron to areas with difficult land access, where no other means of application are possible. Use drift reduction agents to reduce the risk of off-site drift.
- 5) The applicant shall be required to collect and properly dispose of any solid wastes generated by the proposed actions. If any hazardous chemicals, fuels, oils, lubricants, and/or noxious fluids are spilled during field activities, they shall be cleaned up immediately and disposed of at an approved waste disposal facility.
- 6) A release of any chemical, oil, petroleum product, or sewage, etc, (regardless of quantity) must be reported to the Bureau of Land Management – WRFO Hazardous Materials Coordinator at (970) 878-3800. The Colorado Department of Public Health and Environment (CDPHE) should be notified, if applicable, through the 24-hour spill reporting line at 1 (877) 518-5608.

NAME OF PREPARER: Matthew L. Dupire

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL:



Field Manager

DATE SIGNED:

05/29/08