

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

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2007-089-EA

CASEFILE/PROJECT NUMBER: CO-937-2823-JM-EH33

PROJECT NAME: Three Springs Prescribed Fire Project

LEGAL DESCRIPTION: T5N R100W Sec. 1, 2, 3, 4, 10, 11, 12, 19
T5N R101W Sec 13, 14, 23, 24

APPLICANT: Three Springs Ranch
USDI, Bureau of Land Management (BLM) - White River Field Office

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: The Three Springs Ranch approached the White River Field Office (WRFO) rangeland management specialist and fuels specialist with the possibility of conducting some prescribed burning to improve livestock distribution. Their original proposal involved 1,675 acres BLM, 1,951 acres Private and 240 acres State lands in eight individual burn units distributed through the Wolf Creek allotment (06323). The two units selected were agreed upon between the range, wildlife and fuels programs in collaboration with Joel Tuck of Three Springs Ranch as meeting the needs and goals for all resources involved. This project was selected and designed to restore suitable habitat character for greater sage-grouse and to reduce pinyon juniper woodland encroachment into sagebrush communities. Both treatment units are classified as fire regime 2 (having fire associated disturbance every 50-150 years) with a condition class II rating (moderate departure from the pre-settlement fire regime) as evidenced by the depauperate understory, level of decadence expressed in the sagebrush, and movement of pinyon-juniper into the sagebrush community. Also, additional hazardous fuels component has been built into this project to reduce the unnatural fuel loading associated with previous chaining in the Badger Flat unit.

Proposed Action: BLM in collaboration with Three Springs Ranch would initiate hazardous fuel reduction involving prescribed fire on two burn units (926 acres) depicted on the attached map. The Wasson Draw unit totals 360 acres of which 348 acres are BLM and 12 are private lands owned by Three Springs Ranch. The Badger Flat unit totals 566 acres on BLM public lands. Prescribed fire treatment will be conducted by federal employees.

Broadcast burning and spot ignition will be used to reduce woodland encroachment and the fuel loading of woody species including sagebrush, mountain mahogany, serviceberry, snowberry, Utah juniper and pinyon pine. This will effectively change the vegetation from a late-seral sagebrush community with a depauperate or suppressed understory and/or pinyon-juniper (PJ) encroachment to a sagebrush community with a more mosaic of early-seral grass and forb communities intermingled within mid-seral and late-seral sagebrush and PJ communities. This treatment would result in the improvement of habitat suitability for sage-grouse by reducing the amount of PJ encroachment into the sagebrush type and preempt the conversion of sagebrush sites to pinyon/juniper stands. Hazardous fuels objectives would be met by reducing the amount of live and dead fuel accumulation resulting in a lower intensity wildfire in the event one should occur as compared to the current condition. Rangeland and sage-grouse management objectives would be met by improving understory herbaceous production and composition.

The target area consists of the two units intended to be burned subject to the resource objectives listed in the resource management objectives section below. The allowable area is the surrounding area where burning is not planned. Fire may be allowed in this area, under specific criteria, without being declared a wildfire. Black lining will be conducted around the perimeter of the target areas in order to reduce the chance of fire burning outside the target area. In the event that fire should spread from the target area (see map), the burn boss, holding specialist, and resource advisor will determine if suppression actions are warranted. Further criteria may be identified by the prescribed fire plan.

All prescribed fire will be conducted in accordance with the State of Colorado Smoke Management Plan and Memorandum of Understanding (MOU), and will be regulated under Colorado Department of Public Health and Environment, Air Pollution Control Division, approved open burning permits, which must be issued in advance of the fire. Simple Approach Smoke Estimation Model (SASEM, 1991) air pollutant dispersion predictions will be completed for all prescribed burn plans and reviewed by the State.

Treatment Area Description and Resource Management Objectives: This 926 acre prescribed fire project is located approximately 22 miles north of Dinosaur Colorado, in the Badger Flat and Wasson Draw areas of Moffat County.

The Wasson Draw unit (360 acres) is approximately 20% Mountain sagebrush, 64% sagebrush with pinyon-juniper encroachment and mountain shrub, and 15% pinyon-juniper woodland. For this unit broadcast burning will be utilized to achieve the identified objectives: limit mortality of perennial bunch/sod grasses and forbs to 10-15% and kill 60-100% of juniper and pinyon trees to reduce tree encroachment into sage parks, increase the understory expression/composition, and to retain valuable forage species for wildlife and livestock. Total acreage consumed by fire should be limited to 60 – 90% of the targeted areas to create mosaic of vegetation communities with varying age classes for improved grouse and big game habitat. For continuous sagebrush free of PJ encroachment fire will not be introduced to these areas but will not be excluded from this vegetation type. This is intended to retain a seed source for sagebrush re-establishment post treatment. Fire will not be introduced into mature open stands of PJ but will not be excluded from those stands. This unit would be scheduled for treatment in fiscal year 2007 when in prescription as detailed in the approved prescribed fire plan.

The Badger Flat unit (566 acres) is approximately 32% Mountain sagebrush, 53% sagebrush with pinyon-juniper encroachment, 15% pinyon-juniper woodland. Broadcast burning will be conducted to achieve resource objectives. For these units the objectives are to rejuvenate the sagebrush community, limit mortality of perennial bunch/sod grasses and forbs to 10-15% and kill 60-100% of juniper and pinyon trees to reduce tree encroachment into sage parks, increase the understory expression/composition, and to retain valuable forage species for sage grouse, wildlife and livestock. Total acreage consumed by fire should be limited to 60 – 90% of the targeted areas to create mosaic and edge effects for improved wildlife habitat. For continuous sagebrush free of PJ encroachment fire will not be introduced to these areas but will not be excluded from this vegetation type. This is intended to retain a seed source for sagebrush re-establishment and cover for grouse potentially utilizing the area post treatment. The Badger Flat unit would be scheduled for treatment in fiscal year 2008 when in prescription as detailed in the approved prescribed fire plan.

Due to the suppressed/declining condition of the understory community within the Badger Flat treatment unit and presence of cheatgrass and its potential to degrade and inhibit progression towards a functioning mid-seral sagebrush community, aerial broadcast seeding or rangeland drilling will be conducted in the late fall with the species and rates identified in table 1.

TABLE 1

Seed Mix #	Species (Variety)	Lbs. PLS per Acre
2	Western wheatgrass (Rosanna)	1
	Indian ricegrass (Rimrock)	1
	Bluebunch wheatgrass (Whitmar)	2
	Thickspike wheatgrass (Critana)	2
	Bottlebrush Squirreltail (Sand Hollow)	0.5
	Utah sweetvetch	0.5
	Blue flax (Maple Grove)	0.25
	Western Yarrow (VNS)	0.25

To insure plant recovery/establishment the treated areas will be rested from livestock grazing for two growing seasons.

The following is considered part of the proposed action:

- All wooden features such as log cabins, fences, dugouts and so forth shall be isolated and protected from loss due to fire by building control lines to protect the site plus application of water and/or foam to protect the sites from loss.
- To minimize excessive erosion and establishment of the invasive annual *Bromus tectorum* (Cheatgrass) reseed the burn area with the prescribed seed mix as described in the proposed action.
- Measures that enhance the benefits and reduce the risk of this project on resident wildlife have been incorporated in the proposed action.

- Prior and during ignition operations signage stating “Smoke on Road”, “Fire Operations Ahead” and/or similar shall be placed on Moffat County road 14 east and west of prescribed fire area. Moffat County Road and Bridge Department shall be contacted via official correspondence prior to any firing operations along their roadways.
- As a co-applicant with the USDI-BLM, the Three Springs Ranch will assume all responsibility for repairing any reservoirs on private lands damaged as a result of the proposed actions.
- Three Springs Ranch will be required to defer use on the burn units for two years/critical growing seasons following completion of the burns to allow for the establishment of vegetation.
- Consult recreation planner at a minimum 1 week prior to planned ignitions and avoid if at possible, the following dates in 2007: 8/24-8/26, 9/7-9/9, 9/30-10/2, 10/12-10/14 and 10/19-10-21. Contact Colorado Division of Wildlife Meeker Office as soon as feasible prior to planned ignitions.

No Action Alternative: Under this alternative, fuel reduction activities would not occur.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:

Chemical Treatment: Using herbicides to kill woody vegetation was considered but eliminated from further analysis because the dead plant material would still present a hazardous, yet reduced, fuel situation. Additionally, selective chemical treatment is problematic and results are visually unappealing.

Mechanical Treatment: Mechanically treating the project area was considered but eliminated from further analysis because of the overwhelming cost to treat the heavy pinyon juniper encroachment associated with the project.

NEED FOR THE ACTION: Studies have shown that sage grouse populations are declining due to loss of habitat from a variety of factors including industrial activities, livestock management, and habitat conversion from sagebrush to PJ. The Wasson Draw, , and portions of Bader Flat II are considered overall range and brood rearing areas for greater sage-grouse dependent upon habitat suitability. Known strutting grounds, brood rearing and summer habitat all occur within a six mile radius of the proposed project. In light of these facts there is a very high probability that grouse could derive more utility from the project area with the successful implementation of the this project due to the enhancement of more suitable habitat character.

Section 102(a)(5) of the Healthy Forest Restoration Act authorizes projects that will enhance protection from catastrophic wildland fire for threatened and endangered or sensitive species or

their habitats and that maintain and restore such habitats. The White River Fire Management Plan, which was developed as a required action in the White River Resource Management Plan, identifies areas where hazardous fuel reduction take place to protect, maintain and enhance ecosystems, economic values, and multiple resource management programs. The proposed action was developed to comply with these two plans.

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: 2-31 & 2-55

Decision Language: “Restore, maintain, or enhance habitat conditions and features conducive to the maintenance or expansion of native grouse populations.”

“Manage fire to protect public health, safety, and property as well as allowing fire to carry out important ecological functions.” “Utilize prescribed fire, both natural and management ignited, to protect, maintain and enhance ecosystems, economic values, and multiple use resource management programs.”

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: Air quality is not currently being monitored in the project area, however it is considered to be within the national and Colorado air quality standards. There are two Class I (visibility) areas located in northwest Colorado including the Mt. Zirkel Wilderness

120 miles to the northeast and the Flat Tops Wilderness 70 miles to the east. Dinosaur National Monument directly north of the proposed action is considered a Class II Airshed.

Environmental Consequences of the Proposed Action: Both prescribed and wildland fire are potentially a significant source of air pollution emissions including particulate matter, volatile organic compounds, and carbon monoxide.

Under the proposed action, all fire activities will be conducted within existing laws that protect air quality. Specifically, all fire activities must comply with the applicable air quality regulations required by FLPMA, the Clean Air Act, and the Colorado Air Quality Commission. By complying with applicable air quality standards and regulations, impacts to air quality will be short term and considered acceptable.

Prescribed fires are typically smaller than uncontrolled wildfires that occur during peak burning conditions and typically involve less total combustion than wildfire, as a result of the more mesic conditions under which prescribed fires are conducted resulting in less overall smoke production. Also, prescribed fires are conducted under atmospheric conditions that will promote air pollutant dispersion.

Environmental Consequences of the No Action Alternative: The direct environmental consequences associated from this project will obviously be absent in the no action alternative. However, greater long term consequences could occur as a result of increasing potential for large scale uncontrolled wildfires. Uncontrolled wildfires tend to produce more smoke as a result of more fuel consumption, their larger size, and longer burning duration. A large wildfire in this area has the potential to impact the Class 1 designated Mt. Zirkel Wilderness area.

Mitigation: None

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: The closest ACEC to the proposed action is Moosehead Mountain which lies 8 miles west southwest of the proposed action.

Environmental Consequences of the Proposed Action: The prescription for both the Wasson Draw and Badger Flat burns will call for west, south or southwest winds which would carry fire and smoke in the opposite direction of the nearest ACEC. Therefore there is no conceivable likelihood that the Moosehead ACEC would be impacted directly by fire or indirectly from smoke.

Environmental Consequences of the No Action Alternative: None

Mitigation: None

CULTURAL RESOURCES

Affected Environment: The proposed Wasson Draw and Badger Flat segments of the project area have been inventoried at the Class III (100% pedestrian) level with nine sites and thirteen isolated finds located in the project area. Sites include open prehistoric camps, historic homesteads, historic refuse deposits, fences constructed of early 20th century wire and fences constructed of stacked piñon and juniper limbs and boughs, open lithic scatters and various isolated stone artifacts.

Environmental Consequences of the Proposed Action: If mitigation measures are strictly adhered to there should be no adverse impacts to any cultural resources.

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

Mitigation: None

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The Wasson Draw burn unit is located in the stony foothills and deep loam ecological sites. The stony foothills ecological site is located on hillslopes and mountain sides and is dominated by bluebunch wheatgrass, western wheatgrass, Indian ricegrass, needleandthread, stemless goldenweed, phlox, big sagebrush, antelope bitterbrush, and occasionally pinyon pine and Utah juniper. Deep loam ecological sites are located on piedmont slopes and are dominated by Nevada bluegrass, muttongrass, prairie junegrass, western wheatgrass, needleandthread, Wyoming big sagebrush, mountain snowberry, and scattered basin wildrye.

The Badger Flat unit is located on in the stony foothills, deep loam and Pinyon/Juniper woodland ecological sites. Pinyon/Juniper woodlands are generally located on valley sides and the dominate vegetation is Pinyon Pine and Utah Juniper with an understory of Wyoming big Sagebrush, True Mountain Mahogany, Bluebunch Wheatgrass, Western Wheatgrass, Prairie Junegrass, and Sandberg Bluegrass.

The only known invasive non-native species known to occur near the project area is Cheatgrass (*Bromus tectorum*). Cheatgrass is an undesirable invasive annual that is scattered throughout the understory of the project areas and along roadsides as a result of previous grazing and past fires.

Environmental Consequences of the Proposed Action: The proposed action will create minimal soil disturbance and thus, there will be few opportunities for noxious weed establishment. There is potential for cheatgrass invasion, particularly in black line areas adjacent to roads and trails and where the piles are burned. With successful revegetation efforts through aerial/drill seeding, this will be held to a minimum.

Environmental Consequences of the No Action Alternative: There would be no change from the present situation of a scattered cheatgrass understory.

Mitigation: None

MIGRATORY BIRDS

Affected Environment: A variety of migratory bird species fulfill reproductive functions in the project area's sagebrush and woodland communities from late May through mid July. Birds associated with the project site are widely distributed and common throughout the Resource Area in extensive suitable habitats. The project area is not inhabited by any species that is narrowly endemic or highly specialized, although a number have been identified by the Colorado Partners in Flight program as having high conservation interest including: greater sage-grouse and Brewer's sparrow (sagebrush associates) and black-throated gray warbler, juniper titmouse and gray flycatcher (pinyon-juniper associates). Due to the lack of mature pinyon-juniper woodlands within the project area, the latter associates are typically represented at lower densities.

Environmental Consequences of the Proposed Action: The proposed action is scheduled to take place during the fall months (September/October) of 2007 and 2008 and as such would have no potential to directly impact nesting activities as the breeding season would have long since ended. These treatments would concentrate on treating parcels of pinyon-juniper regeneration and submature trees that generally possess attributes less favorable for nest site selection (e.g., poorly developed subcanopy, lack of cavities, simple small-diameter branching). Any subsequent years nest site selection would be done in the face of this disturbance and should have no significant impacts on nesting success.

Environmental Consequences of the No Action Alternative: Failure to implement the proposed action would have no bearing on migratory bird distribution or habitat quality.

Mitigation: None

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

Affected Environment: There are no threatened or endangered animal species that inhabit the treatment areas. The greater sage-grouse (*Centrocercus urophasianus*), a BLM sensitive species, may occur in the treatment areas. The Wasson Draw unit is considered by the Colorado Division of Wildlife (DOW) to be within the overall range of the Northwest Colorado sage-grouse population and specifically map it as potential brood-rearing habitat. The closest active lek to the Wasson Draw unit is the Karren Ranch lek which is approximately 7.6km (4.7 mi) away from the unit boundary. There are three historic leks, Three Springs, Luxen Draw, and 13 Mile Marker, which are located 2.2km (1.4mi) to 5.5km (3.4mi) away from the unit boundary. The southwestern edge (along Moffat County Road 14) of the Badger Flat unit is also considered by DOW to be within the overall range of the Northwest population and is mapped as potential brood-rearing habitat. The two closest active leks to the Badger Flat unit are the Karren Lek

(approximately 14.5km or 9mi away from the unit) and the Elk Springs Draw Lek (approximately 15.5km or 9.6mi away from the unit). A historic lek, Peterson Draw, is located 10.8km (6.7mi) from the unit.

Environmental Consequences of the Proposed Action: The proposed action is unlikely to have any direct influence on the Blue Mountain sage-grouse population. Primarily due to advanced successional status and discontinuity with occupied ranges to the south and west, the two selected parcels possess only marginal utility for sage-grouse at the present time. Evidence indicates that these sagebrush parks have been maintained in a sagebrush disclimax by periodic fire over several pinyon-juniper generations (hundreds of years) and encroaching pinyon-juniper is thought to represent an expression of advanced community age that is inconsistent with continued occupation by sage-grouse. Proposed application of fire would provide an ecologically appropriate means to restore seasonal utility of these sagebrush parks (e.g., enhance herbaceous understory expression, redevelop suitable sagebrush canopies for nesting) for sage-grouse within approximately 15 years.

Environmental Consequences of the No Action Alternative: Failure to implement the proposed action would allow progressive successional advance (e.g., increasing tree component) and would forego the opportunity to add incrementally to the near-term extent and distribution of suitable sage-grouse habitats on Blue Mountain.

Mitigation: None as applied to project implementation, but WRFO biologists were involved with the selection of the treatment parcels.

Finding on the Public Land Health Standard for Threatened & Endangered species: The project area is currently meeting the Land Health Standard. The advancing age of sagebrush steppe habitats on Blue Mountain is not considered inconsistent with normal successional patterns, and sage-grouse occupation of, or retreat from; formerly occupied habitat is generally a response to a constant continuum of changes in habitat condition. The proposed action would initiate a process that would, within 1-2 decades, provide sagebrush canopies and understory conditions conducive to the support of sage-grouse, and would therefore promote continued meeting of the Standard. The no-action alternative, although not necessarily adverse to the Blue Mountain population or continued meeting of the Standard in the short term, would defer potential long-term benefits attributable to the expanded availability of suitable sage-grouse habitats--this at a time when continental populations are declining in the face of a complex and not fully understood series of behavioral and habitat-related insults.

WASTES, HAZARDOUS OR SOLID

Affected Environment: Hazardous or solid wastes are not expected to be a part of the affected environment. However, these materials may accidentally be introduced in the environment through the implementation of the proposed action. Fuel, oil, grease, and antifreeze are all associated with vehicles and fire suppression equipment associated with implementing the proposed action and would only be introduced into the environment because of equipment failure. Minute loss of these materials through normal operation of equipment, maintenance and

fueling procedures are not considered spills. Spills are generally defined as the loss of large quantities of these materials into the environment and are determined to be a spill on a case-by-case basis.

Environmental Consequences of the Proposed Action: For any given accident or incident involving hazardous materials, consequences will be dependent on the volume and nature of the incident and material released. Short term impacts such as contaminations of soils, vegetation, and surface water could occur.

Environmental Consequences of the No Action Alternative: No hazardous wastes would be introduced into the environment under the no action alternative.

Mitigation: None

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

Affected Environment: Wasson Draw unit is located entirely within the Wolf Creek 5th level watershed in the White River Basin. The primary 6th/7th level watershed to be impacted by the proposed action is Wasson Draw. Wasson Draw is an ephemeral tributary to intermittent Bear Valley Draw. Bear Valley Draw is a tributary to intermittent Wolf Creek which is a tributary to the White River. The White River is a tributary to the Green River (in Utah) which is a tributary to the Colorado River. The proposed project area in Wasson Draw is situated in water quality stream segment 13a of the White River Basin.

Badger Flat unit sits on the drainage divide between the Wolf Creek 5th level watershed (White River Basin) and Yampa River below Elk Springs 5th level watershed (Lower Yampa/Green River Basin). The primary 6th/7th level watersheds to be impacted by Badger Flat Unit II are Wolf Creek (White River Basin) and Disappointment Draw (Lower Yampa/Green River Basin). Badger Flat Unit II encompasses water quality stream segments 13a of the White River Basin as well as segment 14 of the Lower Yampa/Green River Basin.

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 drainages impacted by the proposed action. Water quality stream segment 13a of the White River Basin is defined as all tributaries to the White River from a point immediately above the confluence with Piceance Creek to a point immediately above the confluence with Douglas Creek including Taylor Draw Reservoir. State has classified stream segment 13a as "Use Protected" and further designated it as beneficial for the following uses: Warm Aquatic Life 2, Recreation 2, and Agriculture. The antidegradation review requirements in the Antidegradation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 milligrams per liter (mg/l), pH = 6.5 - 9.0, and Fecal Coliform = 2,000/100 milliliters (ml) and 630/100 ml E. coli. Numeric standards for inorganic compounds and metals can be found within Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin (CDPHE 2005a).

Stream segment 14 of the Lower Yampa/Green River Basin is defined as all tributaries to the Yampa River including all wetlands, lakes, and reservoirs from a point immediately below the confluence with Lay Creek to a point immediately below the confluence with the Little Snake River, except for specific listings in segments 17a, 17b and 18. State has classified stream segment 14 as "Use Protected" and further designated it as beneficial for the following uses: Warm Aquatic Life 2, Recreation 2, and Agriculture. The antidegradation review requirements in the Antidegradation Rule are not applicable to waters designated use-protected. For those waters, only the protection specified in each reach will apply. For this reach, minimum standards for four parameters have been listed. These parameters are: dissolved oxygen = 5.0 milligrams per liter (mg/l), pH = 6.5 - 9.0, and Fecal Coliform = 2,000/100 milliliters (ml) and 630/100 ml E. coli. Numeric standards for inorganic compounds and metals can be found within Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin (CDPHE 2005a).

Newly promulgated Colorado Regulations Nos. 93 and 94 (CDPHE 2006c and 2006d, respectively) were reviewed for information related to the proposed project 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). No segments were identified within the Lower Yampa/Green River Basin. 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 that are potentially impaired – 9 (Flag Creek) and 22 (Soldier Creek) and one segment within the Lower Yampa/Green River - segment 2, Yampa River from Lay Creek to the Green River (for impairment from sediment). Stream segment 13a of the White River Basin and stream segment 14 of the Lower Yampa/Green River basin were not listed.

The 2006 303(d) list of segments needing development of TMDLs 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 that are potentially impaired – 9 (Flag Creek) and 22 (Soldier Creek). Stream segments 7, 9a, and 13a were not listed.

All areas proposed for prescribed fire are situated in areas of low relief high in the drainage basins and away from perennial water sources. No springs or water wells have been identified within 200 meters of the proposed actions.

Environmental Consequences of the Proposed Action: Prescribed fire would temporarily reduce soil infiltration rates as ground cover (e.g. litter and woody debris) is consumed. The rate of hill slope soil erosion would temporarily be elevated above current rates. However, because prescribed fire is generally of low burn intensity potential for developing hydrophobic soils is low and mortality of perennial bunch/sod grass and forbs is not expected. Application of

prescribed fire and mechanical vegetative treatments will reduce hazardous fuels build-up, rejuvenate established desirable vegetative communities over time, and effectively mitigate detrimental water quality impacts (sediment loading) associated with high intensity wildfire. The proposed actions are anticipated to improve watershed health.

Environmental Consequences of the No Action Alternative: No burning or mechanical vegetative treatments would occur. Pinyon juniper woodland encroachment into existing sagebrush communities would continue as would departure from the pre-settlement fire regime. As a result, hazardous fuels would continue to build increasing potential for high intensity wildfire. High intensity wildfire would result in increased perennial bunch/sod grass and forbs mortality as well as kill encroaching pinyon and juniper trees decreasing soil infiltration and permeability rates (potentially creating hydrophobic soils). Decreased infiltration and permeability rates reduce soil stability as potential for erosive overland flows is increased. Soil destabilization, increases erosive potential and would elevate sediment and salt loading to the Colorado River System deteriorating water quality.

Mitigation: Revegetate treated areas vulnerable to establishment of non desirable vegetation as outlined in the proposed actions.

Finding on the Public Land Health Standard for water quality: Water quality of the watersheds in the proposed action is well within the limits established by the State. The effects of the proposed action would not alter the watersheds ability to meet these State standards.

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

Affected Environment: There are no perennial streams or springs with associated riparian vegetation located in either the Wasson Draw unit or Badger Flat units or within the manageable area.

Environmental Consequences of the Proposed Action: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for riparian systems: Since there are no perennial streams or springs with associated riparian vegetation occurring within the treatment units, the proposed action will have no influence on the Public Land Health Standard pertaining to riparian systems.

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. There are no threatened, endangered or BLM sensitive plant species present within or derive suitable or potential habitats associated with the project implementation.

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 following table describes the soils that are present within the burn units which are delineated and described in the Soil Survey of Moffat County.

203 Forelle, Alkaline-Emlin loams, 1-12% slopes: The Emlin soil is very deep and well drained. It formed in alluvium derived from limestone and sandstone and in loess. Typically, the surface layer is dark grayish brown loam 11 inches thick. The upper 8 inches of the subsoil is yellowish brown calcareous clay loam. The lower part to a depth of 60 inches or more is very pale brown silty clay loam containing a high amount of calcium carbonate. Permeability of the Emlin soil is moderately slow. Available water capacity is high. Effective rooting depth is about 35 inches. Runoff is slow, and the hazard of water erosion is moderate. The hazard of soil blowing is slight. The potential plant community on this unit is mainly Nevada bluegrass, muttongrass, prairie junegrass, western wheatgrass, needle and thread, Wyoming big sagebrush, mountain snowberry, and scattered basin wildrye.

101 Torriorthents-Rock Outcrop, Sandstone Complex: This map unit is on hill slopes and mountainsides. The Torriorthents soils are very shallow to moderately deep, well drained soils. They formed in residuum and colluvium derived from sandstone and shale. Permeability is moderate to moderately rapid. Available water capacity is very low. Effective rooting depth is 4 to 30 inches. Runoff is rapid, and the hazard of water erosion is very high. The hazard of soil blowing is slight. Rock outcrop is mainly vertical sandstone or limestone ledges and exposed soft shale. The present vegetation on the Torriorthents soil is commonly bluebunch wheatgrass, western wheatgrass, Indian ricegrass, needle and thread, stemless goldenweed, phlox, big sagebrush, antelope bitterbrush, and occasionally pinyon pine and Utah juniper.

167 Zillion-Barkeley-Grapit Complex, 25--65% slopes: This map unit is on mountainsides and is 35 percent Zillion soil, 25 percent Barkeley soil, and 20 percent Grapit soil. The Zillion soil is on concave portions of the mountainsides, the Barkeley soil is on the steeper convex areas, and the Grapit soil is on the less steep convex areas. The Zillion soil is very deep and well drained. It formed in colluvium derived from limestone and sandstone. The Barkeley soil is very deep and well drained. It formed in colluvium derived from limestone and sandstone. The Grapit soil is very deep and well drained. It formed in colluvium derived from limestone. Permeability of the Zillion soil is moderate. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is rapid, and the hazard of water erosion is very high. The hazard of soil blowing is slight. Permeability of the Barkeley soil is moderately slow. Available

water capacity is low. Effective rooting depth is 60 inches or more. Runoff is rapid, and the hazard of water erosion is high. The hazard of soil blowing is slight. Permeability of the Grapit soil is moderate. Available water capacity is low. Effective rooting depth is 60 inches or more. Runoff is rapid, and the hazard of water erosion is high. The hazard of soil blowing is slight.

The potential plant community on the Zillion and Grapit soils is mainly mountain big sage, Letterman needlegrass, Columbia needlegrass, slender wheatgrass, prairie junegrass, western wheatgrass, mountain snowberry, and Utah serviceberry. The potential plant community on the Barkeley soil is mainly bluebunch wheatgrass, needle and thread, Indian ricegrass, Sandberg bluegrass, mountain big sage, and fringed sagebrush.

194 Crago-Pensore-Grapit association, 6 to 75 percent slopes: This map unit is on valley sides and for the most part is very deep and well drained and formed in colluvium derived from limestone or residuum derived from limestone. Permeability of this association is moderate to available water capacity ranges from very low to moderate. Effective rooting depth is 10 to 20 inches. Runoff is medium to rapid, and the hazard of water erosion is high. The hazard of soil blowing is slight to moderate. The potential plant community on the Crago and Grapit soils is pinyon pine and Utah juniper with an understory of Wyoming big sagebrush, true mountain mahogany, bluebunch wheatgrass, western wheatgrass, prairie junegrass, and Sandberg bluegrass.

Burn Unit	Soil Mapping Unit	Soil Type	Range Site	Acres
Wasson Draw	101	Torriorthents-Rock Outcrop ,Sandstone Complex, VS	Stoney Foothills	161.50
Wasson Draw	167	Zillion-Barkeley-Grapit Complex,25--65%slps	Mountain Loam/Dry Exposure	33.04
	203	Forelle, Alkaline-Emlin loams,1-12% slopes	Deep Loam	165.60
Total Acres				360.14
Badger Flat	194	Crago-Pensore-Grapit assoc,6-75% slopes	PJ woodlands	216.67
	203	Forelle, Alkaline-Emlin loams,1-12% slopes	Deep Loam	242.92
	101	Torriorthents-Rock Outcrop, Sandstone Complex, VS	Stoney Foothills	106.74
Total Acres				566.33

Environmental Consequences of the Proposed Action: The effects of prescribed burning on soils is directly related to the depth and intensity of soil heating as well as vegetation removal which exposes the soil to wind and water erosion. Conducting these burns while soil and live fuel moisture is high, combined with light to moderate fuel loading, will result in lower surface temperatures and short burning duration. As a result, soil heating should not be severe enough to cause significant changes in physical properties of the soil, mortality of perennial grasses and forbs, and mortality of the seed bed. It is anticipated that soil erosion will increase for one to three growing seasons post burn due to increased soil surface exposure. Within that time frame herbaceous vegetation cover should increase above pre-burn levels resulting in increased soil stability, water infiltration, and reduced soil erosion.

Prescribed burning in The Badger Flat unit will more adversely affect soils for a longer duration, due to shallower soils, lower composition of perennial grasses and forbs, thick duff, and greater fuel loading associated with a greater pinyon juniper component. These areas will require more time to adequately revegetate and are more prone to soil erosion. The most adverse impacts would be to those areas with thick duff and/or heavy accumulations of fuels because of the intense long duration heat produced. Short term soil sterilization and hydrophobicity may occur if burned under very dry conditions however, burning under these conditions should be avoided by conducting the burn in the spring or fall when soil and fuel moistures are relatively high. Despite these short term effects, soil erosion would be at or below pre-burn levels in three to five years due to increased ground cover.

The southwestern portion of the Wasson Draw unit falls within CSU 1 fragile soils totaling approximately 37 acres. The herbaceous community within these fragile soils is of sufficient cover and composition to adequately provide soil stability and protection from riling and gulling. As stated in the proposed action prescribed burning will be conducted when soil and plant moisture are relatively high to meet the objective of limiting the mortality of perennial forbs and grasses to less than 15%. Meeting this objective combined with seeding as stated in the vegetation section will adequately mitigate any potential loss of soil productivity; surface runoff will be minimized by prompt revegetation from perennial vegetation present prior to the burn and the addition of supplemental seeding to account for herbaceous vegetation mortality so as to minimize accelerated erosion.

Another related effect of implementing the proposed action is the reduced chance of large fire occurrence and improved ability for wildland fires to be managed under moderate environmental conditions.

Environmental Consequences of the No Action Alternative: There would be no direct impact to soils under this alternative. However, the threat of large fires occurring under extremely dry conditions would continue to exist. The scale and duration of adverse soil impacts is much higher under extreme burning conditions associated with large fire occurrence.

Mitigation: None

Finding on the Public Land Health Standard for upland soils: Soils within the burn units currently meet Public Land Health Standards. Implementing this prescribed fire project will cause a short term (1-3 years) increase in soil erosion by decreasing canopy cover and surface litter. However, since soil heating should not be severe, organic content of the soil should remain high, canopy cover should increase with vigorous desirable perennial grasses and forbs, and plant diversity can be expected to increase from current conditions. It is anticipated that by implementing this proposed action the long term effect should improve the indicators for the upland soils standard.

VEGETATION (includes a finding on Standard 3)

Affected Environment: The principle ecological sites in the Wasson Draw unit are mountain loam 33.04 acres, stony foothills 161.5 acres, and deep loam 165.6 acres. Vegetation on the proposed treatment unit is dominated by primarily mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) with a well developed and diverse perennial grass and forb understory with pinyon and juniper encroachment primarily on the transition slopes to the valley bottom. There is a mix of shrubs on the north and south facing slopes that are comprised of oakbrush, bitterbrush, mountain mahogany, and serviceberry with a well developed understory of grasses and forbs. Under the dense woodland canopy the understory is limited to scattered grasses and forbs (needleandthread, Indian ricegrass, penstemon, and various composites).

The principle ecological sites for the Badger Flat unit are deep loam (243 acres), pinyon-juniper woodland (216.7 acres), and stony foothills (107 acres). Vegetation on both the deep loam and stony foothills ecological sites is mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) with serviceberry, bitterbrush, and snowberry present and in places abundant throughout the unit, especially the northwestern portion of the unit. The depauperate yet diverse herbaceous understory is comprised of needle and thread, western wheatgrass, mutton bluegrass, buckwheat, lupine, tapertip hawksbeard and long leaf phlox, much of these species are limited in extent and expression. This unit is experiencing heavy pinyon establishment on the site, which in the absence of a disturbance can be expected to type convert to PJ within the next 75-100 years. The pinyon juniper woodlands ecological site is primarily dominated by mountain big sagebrush with small mature PJ stands. Much of the sagebrush within this ecological site is heavily vegetated with small PJ saplings. This site was probably burned approximately 150-200 years ago and is now in early succession based on the level of PJ establishment.

Environmental Consequences of the Proposed Action: Implementation of the burn project will result in 80-90% mortality of big sagebrush and pinyon juniper in all burn units. Big sagebrush (primarily mountain big sagebrush) will reinvade the treatment sites within 10-50 years, the rate of reinvansion will be faster in the higher elevation units and will be determined by climatic conditions and the amount of grazing use made by large herbivores, principally elk and cattle. Wyoming big sagebrush reinvansion will take place at slower rates, probably in the range of 20-60 years. Utah serviceberry and mountain mahogany plants will resprout following burning. Bitterbrush is likely to resprout if prescribed burning is conducted with adequate soil moisture. Fire will result in almost complete mortality of pinyon and juniper in the burn units which is the principal objective of the treatment.

Herbaceous species are generally well adapted to fire. Grasses such as needle and thread and western wheatgrass respond favorably to fire and would be expected to be herbaceous co dominants in the first ten years after burning. Mat forming forbs such as *Antennaria* (pussytoes) and *Eriogonum* (buckwheat) can be severely damaged by fire if the fire occurs under hot, dry conditions such as would occur in a wildfire. In general, if the burn is completed in the spring under prescribed soil moisture conditions, it will favor forbs in the post burn herbaceous composition. Burning can be expected to lengthen the growing season and enhance the nutrient quality of forbs and grasses on the burn sites.

Burning will result in a net decline in the biomass and cover of the biological crusts on site with the extent of the loss being dependent on fire intensity and the resulting mosaic of the burn.

Depending on fire intensity, biological crust structural components such as fungal hyphae, algal and cyano bacterial filaments, and moss and lichen rhizomes may persist for some time after burning, reducing erosion while the biological crusts and vascular plants recover after burning. Crust recovery rates vary widely, and may range from 2-5 years for partial recovery of algal crusts to up to 200 years for moss and lichen crusts.

Environmental Consequences of the No Action Alternative: Presently the treatment units could be considered to be in Stage One relative to their conversion into PJ woodlands. That is, pinyon trees have invaded the Wyoming/mountain big sagebrush type but they have not reached sufficient density and height to dominate the site. No action would allow the invasion process to continue so that over the long term, the treatment areas would be dominated in both structure and composition by pinyon-juniper trees, absent the occurrence of an uncontrollable wildfire event.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Vegetation in the proposed project area currently meets the Standard yet with continued pinyon juniper type conversion that trend can be expected to decline over time in the absence of disturbance such as fire. Successful implementation of this project, while decreasing pinyon-juniper, mountain and Wyoming big sagebrush cover over the short term, will result in a long term improvement in the vegetation cover and composition, and the standard would continue to be met with an upward or stable trend.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: There are no aquatic wildlife species occurring within either the Wasson Draw or Badger Flat treatment units.

Environmental Consequences of the Proposed Action: None

Environmental Consequences of the No Action Alternative: None

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Since there are no perennial waters occurring within the treatment units, the proposed action will have no influence on the Public Land Health Standard pertaining to aquatic wildlife.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The project area's sagebrush and pinyon juniper communities are use year-round by big game. Neither the Wasson Draw or Badger Flat units have been identified by the Colorado Division of Wildlife as critical use areas (e.g., severe winter range).

Non-game wildlife using this area are typical and widely distributed in extensive, like habitats across the Resource Area and northwest Colorado, and there are no narrowly endemic or highly specialized species known to inhabit those lands potentially influenced by this action. Due to the poorly composed pinyon-juniper communities (e.g., small acreage and discontinuity) within both the Wasson and Badger II units, use by woodland raptors is negligible. There are no rock outcrops that provide adequate nest sites for cliff nesting species such as golden eagle and red-tailed hawk.

Environmental Consequences of the Proposed Action: As schedule, this project would not overlap with any wildlife critical use timeframes and is not expected to have any effective influence on the abundance or distribution of big game or nongame populations at any landscape scale. Although the proposed action would result in the loss of approximately 780 acres of woody forage, these forage types generally receive light use by elk, which more commonly occupy the project area. While deer may utilize sagebrush more frequently, this browse type is not in limited supply within the project area. A more important aspect of this project for big game would be the maintenance of strong herbaceous development in contrast to the slow decline in herbaceous availability that would attend woodland advance.

Environmental Consequences of the No Action Alternative: Failure to implement the proposed action would have no bearing terrestrial wildlife or associated habitats.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): The project area currently meets the public land health standards for terrestrial animal communities. The proposed and no action alternatives would not detract from continued meeting of the land health standard at the landscape scale. Prescribed burning emulates a recurring ecological process that tends to maintain community equilibrium at the larger landscape scale and is therefore wholly consistent with continued meeting of the standard.

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
Forest Management	X		
Geology and Minerals	X		
Hydrology/Water Rights			X
Law Enforcement		X	

Non-Critical Element	NA or Not Present	Applicable or Present, No Impact	Applicable & Present and Brought Forward for Analysis
Noise	X		
Paleontology		X	
Rangeland Management			
Realty Authorizations	X		
Recreation			X
Socio-Economics		X	
Visual Resources			X
Wild Horses	X		

ACCESS AND TRANSPORTATION

Affected Environment: The Badger Flat unit is described on the southern flank by Moffat County Road 14 and a publicly accessible unnamed BLM route on the northwest flank. The Wasson Draw unit is bisected by a publicly accessible unnamed BLM two-track route.

Environmental Consequences of the Proposed Action: Moffat County Road 14 is a moderately traveled public road that access private lands as well as Dinosaur National Monument.

Environmental Consequences of the No Action Alternative: As public roads will be used for containment lines and will likely have firefighting equipment along routes the potential for smoke to drift across roadways limiting driver visibility could lead to hazardous driving conditions and present a hazard for both public road users and firefighting personnel along roadways.

Mitigation: None

FIRE MANAGEMENT

Affected Environment: The proposed action is within the D1 Blue Mtn/Dinosaur fire management polygon. “D” polygons are areas where fire is desired and there are few to no constraints to its use. The D1 polygon has experienced 56 wildland fire starts since 1994 with 2,380.35 acres consumed within that time frame. The target area is Mountain/Wyoming Big Sagebrush/grass, and PJ vegetation stratum which is classified as a fire regime III (vegetation strata that experiences infrequent (>35 year fire return intervals) fire return intervals that remove > 75% of the vegetation). The target area has missed approximately 1 fire return interval, and is rated as a condition class II due to unnatural fuel loading, associated with pinion juniper type conversion of sagebrush communities, and departure from fire frequency. The cumulative Fire Regime and Condition Class (FRCC) assessment of the fire management polygon is in a fire regime IV and a condition class II.

Environmental Consequences of the Proposed Action: The proposed action will result in a lessening of potential fire behavior and fire intensities post treatment for a period of 30 to 100 years. The treated areas will be dominated by grasses and forbs, and if they should burn, the intensities would be much lower than under the current situation. Suppression activities would be safer more effective and less costly than in the current situation with the heavier more continuous fuels.

Post treatment the Badger Flat treatment areas would move from a fire regime condition class (FRCC) of II & III to a FRCC of I or II more closely resembling vegetation type and structure of the potential natural vegetation pre-settlement with a natural mix of age classes and varying levels of canopy closure.

Post treatment the Wasson Draw unit would most likely not show a shift in FRCC. If analyzed separate from the project as a whole it would most likely rate as condition class II with little change from expected conditions within the range of historic natural variability. Successful implementation would achieve a natural mix of age classes and varying levels of canopy closure within this vegetation stratum and ensure long term (50-100 years) condition class maintenance.

Environmental Consequences of the No Action Alternative: There will be no change from the current condition. The Badger Flat unit would continue to remain in condition class II & III and the Wasson Draw unit would continue to progress toward complete condition class III in the absence of a fire disturbance. The threat of a large, difficult to control, and costly wildland fire burning under extreme environmental conditions would remain.

Mitigation: None

FOREST MANAGEMENT

Affected Environment: The project area contains 216 acres of PJ or juniper woodland classified by soils. Of this acreage 120 acres are mid - late seral PJ woodlands. The remainder is PJ encroaching into sagebrush and mountain browse vegetation types.

Environmental Consequences of the Proposed Action: The mature PJ stands would not be affected by this alternative. The treatment of 806 acres of PJ encroachment would not affect the woodland base or deny woodland products for the general public with exception of a few pinyon Christmas trees. Prescribed burning would set back PJ woodland establishment from between 50 and 200 years, and development of mature woodlands by 200 to 300 years if there are no follow-up treatments. Burning of the encroaching trees at this time would decrease the loading of fuels and continuity, further protecting the remaining mature woodlands from stand replacing wildfires.

Environmental Consequences of the No Action Alternative: There are two scenarios which could occur within the PJ encroachment. These areas would develop in the absence of fire and develop into mature stands over a period of 150 to 250 years, or these areas would increase

in cover and density and would burn in a stand replacing wild fire with the likely loss of the current mature stands.

Mitigation: None

HYDROLOGY AND WATER RIGHTS

Affected Environment: Wasson Draw is located entirely within the Wolf Creek 5th level watershed in the White River Basin. The primary 6th/7th level watershed to be impacted by the proposed action is Wasson Draw. Wasson Draw is an ephemeral tributary to intermittent Bear Valley Draw. Bear Valley Draw is a tributary to intermittent Wolf Creek which is a tributary to the White River. The White River is a tributary to the Green River (in Utah) which is a tributary to the Colorado River. Badger Flat Unit I is located entirely within the Yampa River below Elk Springs 5th level watershed in the Lower Yampa/Green River Basin. The primary 6th/7th level watershed to be impacted by the proposed action in Badger Flat Unit I is Disappointment Draw. Disappointment Draw is an ephemeral tributary to the Yampa River which is a perennial tributary to the Green River. The Green River is a tributary to the Colorado River. Badger Flat Unit II sits on the drainage divide between the Wolf Creek 5th level watershed (White River Basin) and Yampa River below Elk Springs 5th level watershed (Lower Yampa/Green River Basin). The primary 6th/7th level watersheds to be impacted by Badger Flat Unit II are Wolf Creek (White River Basin) and Disappointment Draw (Lower Yampa/Green River Basin).

The majority of the White River Resource Area was inventoried in the early 1980’s for springs/seeps and water wells. Subsequent monitoring of spring sources, and range improvement projects on BLM administered land has been ongoing in the resource area since initial inventories in the early 1980’s. A search of water rights through Colorado’s Decision Support Systems web site (CDSS, 2006) as well as the WRFO Water Atlas was done to identify water rights information within the proposed project area boundaries. Table 1 identifies water rights near the Badger Flats project areas and outlines basic water rights information. Table 2 identifies water rights near the Wasson Draw project area and also outlines basic water rights information. All of the affected water rights are located on private surface. No BLM water rights will be affected.

Table 1: Badger Flat project area water rights –Private sources

Name	Sect	Twshp	Range	Appr Date	*Use Type	*Struct Type	Rate Amount (CFS)	Volume Amount (ACFT)	Case No
Badger Flat Pond	2 SWSE	5N	100W	5/13/50	169	3	N/A	1.5	91CW0111
Spurgeon Pond	11 SWNW	5N	100W	5/1/50	169	3	N/A	0.2	91CW0111
Upper Wolf Cr. Pond	11 NWSW	5N	100W	8/17/80	189	3	N/A	0.5	80CW0495

Name	Sect	Twshp	Range	Appr Date	*Use Type	*Struct Type	Rate Amount (CFS)	Volume Amount (ACFT)	Case No
Upper Wolf Cr. Well 1	11 SWSW	5N	100W	8/17/80	189	2	0.11	N/A	80CW0495
Upper Wolf Cr. Well 2	11 SESW	5N	100W	8/17/80	189	2	0.088	N/A	80CW0495

* 1 = irrigation, 6 = fishery, 9 = stock

* 3 = reservoir

Table 2: Wasson Draw project area water rights –Private sources

Name	Sect	Twshp	Range	Appr Date	*Use Type	*Struct Type	Rate Amount (CFS)	Volume Amount (ACFT)	Case No
Cecuk Ruppe Pond	13 NENE	5N	101W	6/1/70	169	3	N/A	5.2	91CW0230
Lower Ruppe Pond	13 SENE	5N	101W	6/18/46	169	3	N/A	4.3	91CW0230
Old Homestead Pond	13 NESE	5N	101W	6/1/50	169	3	N/A	0.8	91CW0230

* 1 = irrigation, 6 = fishery, 9 = stock

* 3 = reservoir

Environmental Consequences of the Proposed Action: Prescribed fire would temporarily reduce soil infiltration rates as ground cover (e.g. litter and woody debris) is consumed. The volume of rain and snowmelt available for recharging groundwater aquifers could also be temporarily reduced as potential recharge water would be quickly transported away from recharge areas as overland flow (surface water). The rate of hill slope soil erosion would temporarily be elevated above current rates potentially destabilizing stream channel and bank morphology as well as reducing storage capacity in ponds located on private lands. However, because prescribed fire is generally of low burn intensity, potential for adverse impacts to groundwater recharge, or altering stream channel and bank morphology is low. Application of prescribed fire and mechanical vegetative treatments will reduce hazardous fuels build-up, rejuvenate established desirable vegetative communities over time, and effectively mitigate detrimental hydrology and morphology impacts (e.g. altered groundwater recharge, channel incision, bank cutting, excessive erosion and deposition, etc...) associated with high intensity wildfire. The proposed actions are anticipated to improve watershed health.

Environmental Consequences of the No Action Alternative: No burning or mechanical vegetative treatments would occur. Pinyon juniper woodland encroachment into existing sagebrush communities would continue as would departure from the pre-settlement fire regime. As a result, hazardous fuels would continue to build increasing potential for high intensity wildfire. High intensity wildfire would substantially reduce soil infiltration and permeability rates potentially affected recharge to groundwater resources. Decreased infiltration and permeability rates would also elevate potential for erosive overland flows which could result in

excessive erosion and deposition within surface water drainages further destabilizing stream channel and bank morphologic conditions.

Mitigation: None

RANGELAND MANAGEMENT

Affected Environment: The proposed action occurs within the Wolf Creek allotment (06323) and is permitted to Three Springs Ranch. The permitted use is as follows:

Allotment Name	Livestock Number	Livestock Kind	Begin Date	End Date	%PL	Type of Use	AUM's
Wolf Creek	800	Cattle	5/8	12/30	63	Active	3,927
Wolf Creek	5	Horse	6/1	8/1	14	Active	1

The Wolf Creek allotment is divided into 12 pastures and managed under an allotment management plan (AMP). The Wasson Draw Unit is within the Ruppe and Bear Valley pastures. The Bear Valley pasture is used from 6/01-7/10 by 665 cattle and the Ruppe pasture is used from 7/11-7/31 by 800 cattle. The Badger Flat unit is in the entirety within the disappointment draw pasture and is used by 135 cattle from 6/01-7/10.

Environmental Consequences of the Proposed Action: The proposed action will have a short-term effect on AUM's within the Wolf Creek allotment due to a required two year deferment following the projects completion. However long-term effects of the project will benefit forage production on the burn units with successful rehabilitation and management.

Environmental Consequences of the No Action Alternative: There will be no change from the current situation.

Mitigation: None

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA) and Colorado Division of Wildlife Game Management Unit (GMU) 10 for deer and elk and is considered a trophy elk and deer hunting unit. Typically, it takes approximately 14 years to receive a hunting permit for this area due to the trophy nature of the big game animals. BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use. Four BLM issued Special Recreation Permits (SRP) for commercial outfitting and guiding during the fall big game hunting seasons are permitted within the project area.

The project areas and the surrounding area has been delineated a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: If action occurs during the high-use fall big game hunting seasons (such as late August through November), hunting public will likely be dispersed from the project area and be very vocal about their displeasure as it took many of them in excess of a decade to receive a hunting license for GMU 10.

Environmental Consequences of the No Action Alternative: None.

Mitigation: See proposed Action

VISUAL RESOURCE

Affected Environment: The proposed action is within a VRM class II area. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. The level of change to the characteristic landscape should be minimal.

Key observation points will be from Moffat County roads 14 and 16.

Environmental Consequences of the Proposed Action: The proposed action will likely modify color and texture yet the action mimics what could naturally occur (i.e. wildfire) therefore the casual observer may notice the changes in color and texture but will it likely not draw attention and VRM II objectives will be met. Furthermore, any disturbed vegetation will return making the action virtually unnoticeable within a period of a few years.

Environmental Consequences of the No Action Alternative: No impact on visual resources.

Mitigation: None.

CUMULATIVE IMPACTS SUMMARY: The proposed action would contribute incrementally to the restoration of sage-steppe habitats across this elevational range in the Uintah Basin that, because of successional advance, are in an accelerating process of long-term conversion to pinyon-juniper woodlands. Applying management that increases the extent and restores the continuity and utility of sage-steppe habitats is one of the most important considerations in conserving the greater sage-grouse population in Uintah Basin.

BLM has, and will continue to treat areas of heavy fuels throughout the White River Resource Area in accordance with the White River Fire Management Plan (BLM 1999). Treating various areas of heavy fuels will reduce the potential for catastrophic wildfire by transforming a running crown fire back to the surface, where suppression efforts can be more effective. Once the proposed action has been implemented, BLM can more safely treat other areas in the vicinity that have heavy or unnatural fuels buildup, using prescribed fire or fire use. This would further reduce the potential of wildfire damage to ecosystem function within the basin and continue to allow fire to assume its natural role within the ecosystem.

By implementing the proposed action and other hazardous fuel reduction actions BLM will achieve a mosaic landscape with varying seral vegetation classes which result in a more fire resistant landscape and healthier rangelands. Effects are expected to be similar to effects from similar projects implemented within the White River Field Office since the Fire Management Plan was signed in 1999. To date the WRFO hazardous fuels program has treated 7,734 acres of public land since 1999 totaling 0.50% of all public land within the resource area. This coupled with the design criteria and the small overall percentage of public land being treated result in no significant cumulative impacts.

REFERENCES CITED:

Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Commission (WQCC), 2004a. Regulation No. 37 Classifications and Numeric Standards for Lower Colorado River Basin. Adopted 1983 and Effective January 20, 2004.

CDPHE-WQCC, 2006b. “Status of Water Quality in Colorado – 2006, The Update to the 2002 and 2004 305(b) Report,” April 2006.

CDPHE-WQCC, 2006c. “Regulation No. 93, 2006 Section 303(d) List Water-Quality-Limited Segments Requiring TMDLs,” effective April 30.

CDPHE-WQCC, 2006d. “Regulation No. 94, Colorado’s Monitoring and Evaluation List,” effective April 30.

CDPHE-WQCC, 2006d. “Regulation No. 94, Colorado’s Monitoring and Evaluation List,” effective May 31, 2004.

PERSONS / AGENCIES CONSULTED: Joe Tuck of Three Springs Ranch

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
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Name	Title	Area of Responsibility
Nate Dieterich	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Ken Holsinger	Botanist	Areas of Critical Environmental Concern, Threatened and Endangered Plant Species
Mike Selle	Archeologist	Cultural Resources, Paleontological Resources
Matt Dupire	Rangeland Management Specialist	Invasive, Non-Native Species, Vegetation , Rangeland Management
Heather Sauls	Wildlife Biologist	Migratory Birds, Threatened, Endangered and Sensitive Animal Species, Wildlife, Wildlife Terrestrial and Aquatic, Wetlands and Riparian Zones
Ken Holsinger	Botanist	Wastes, Hazardous or Solid,
Chris Ham	Outdoor Recreation Planner	Wilderness, Access and Transportation, Recreation & Visual Resources
Ken Holsinger	Botanist	Fire Management
Ken Holsinger	Botanist	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Penny Brown	Realty Specialist	Realty Authorizations
Melissa J. Kindall	Range Technician	Wild Horse

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

CO-110-2007-089-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures incorporated as part of the proposed action result 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 approve implementation of the Three Springs Prescribed Fire project as described in the proposed action. The proposed action will increase the suitable extent of sage-grouse habitat by substantially reducing the PJ component in the sagebrush communities found within the Wasson Draw and Badger Flat units and preempt the progressive conversion of this former sagebrush disclimax to a pinyon/juniper woodland site. This project will also result in reduced fuel loading and risk of large-scale wildfire event that could threaten lives, property, and could cause significant long-term ecosystem degradation. The proposed action will also result in greater latitude in managing future wildland and prescribed fire in the vicinity of the project and help improve the overall health of the ecosystem. This action is in compliance with the decisions made within the White River ROD/RMP, the White River Fire Management Plan and environmental impacts are expected to be minimal.

MITIGATION MEASURES: Incorporated into the Proposed Action.

COMPLIANCE/MONITORING: Permanent range and wildlife trend transects will be installed following implementation of the burn project. Those transects will assess composition, cover and vegetative response in relation to wildlife, rangeland and secondary fire effects.

NAME OF PREPARER: Ken Holsinger

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL:

 (Acting)
Field Manager

DATE SIGNED:

9/12/07

ATTACHMENTS: Project location maps.

Township 5N Range 100W

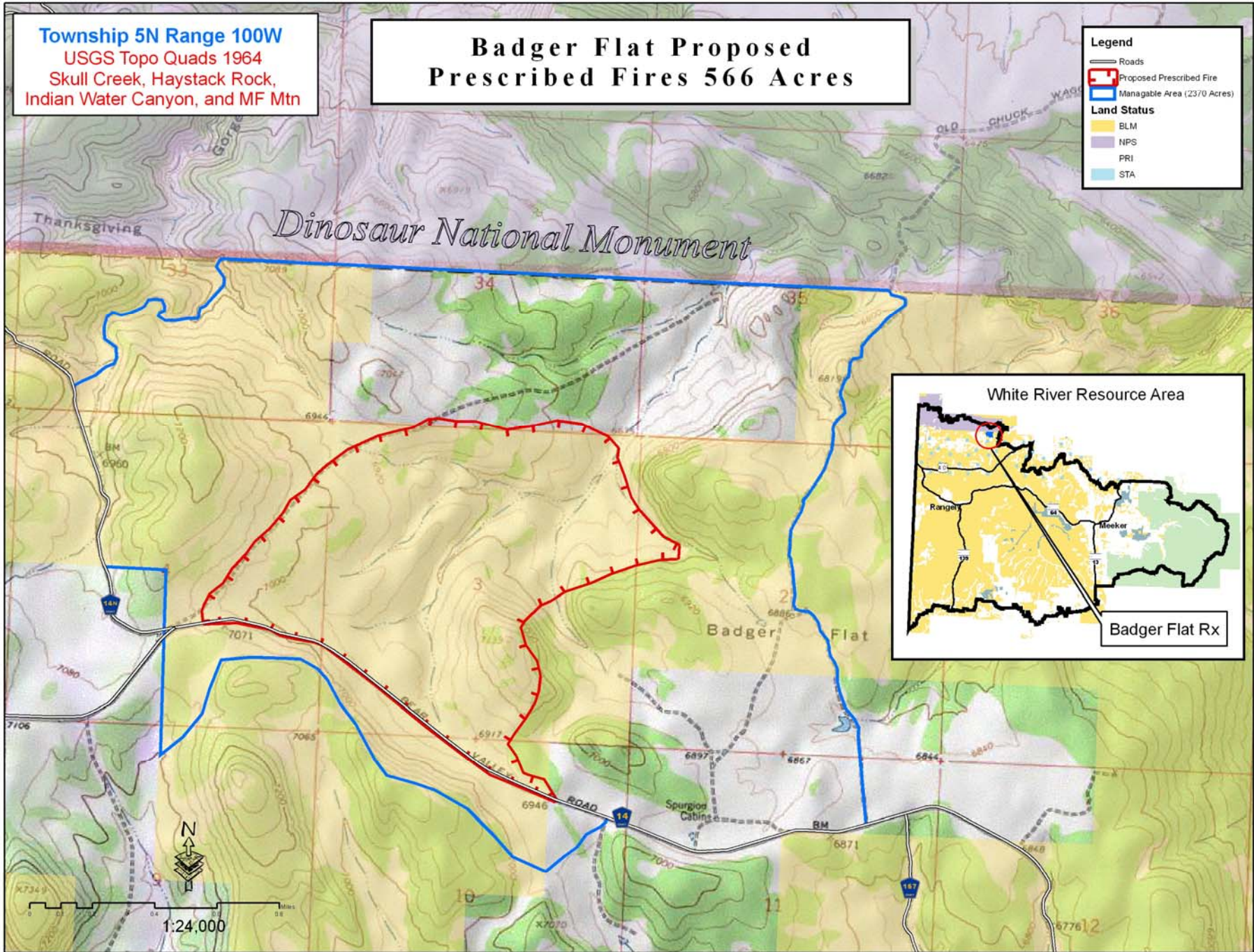
USGS Topo Quads 1964

Skull Creek, Haystack Rock,
Indian Water Canyon, and MF Mtn

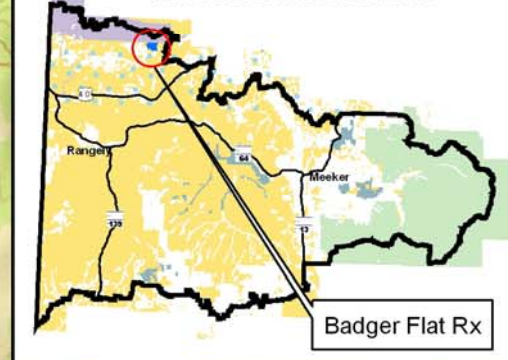
Badger Flat Proposed Prescribed Fires 566 Acres

Legend

- Roads
- Proposed Prescribed Fire
- Managable Area (2370 Acres)
- Land Status
 - BLM
 - NPS
 - PRI
 - STA



White River Resource Area



Badger Flat Rx

Township 5N Range 100W Sec 19
Township 5N Range 101W Sec 13,14,23,24
USGS Topo Quads 1964
Skull Creek & Haystack Rock

Wasson Draw Proposed Prescribed Fire 360 Acres

Legend

- Roads
- Proposed Prescribed Fire
- Managable Area (8694 Acres)
- Land Status**
- BLM
- NPS
- PRI
- STA

