

DECISION RECORD
Southern Big Horn Mountains Curl-leaf Mahogany Restoration
Within Crucial Mule Deer Winter Range; Phase 2
CATEGORICAL EXCLUSION – WY-070-CX13-035
Bureau of Land Management, Buffalo Field Office, Wyoming

DECISION: The BLM approves the proposal sponsored, led, and largely financed by the Wyoming Game and Fish Department (WGFD) to approve the treatment of encroaching conifers in curl-leaf mountain mahogany (*Cercocarpus ledifloius*) (hereinafter “mahogany” or “curl-leaf mahogany”) stands to provide for long-term viability of the stand and enhance crucial mule deer winter range as described in the environmental assessment (EA) WY-070-EA10-372. The approval for this project is for the life of the project which may last, but is not limited to, 5 years from this approval.

Compliance. This decision complies with:

- Federal Land Policy and Management Act of 1976 (FLPMA) (43 USC 1701) (see Section 201).
- National Environmental Policy Act of 1969 (NEPA) (42 USC 4321).
- Endangered Species Act of 1974 (16 USC 1531).
- Buffalo and Powder River Basin (PRB) Final Environmental Impact Statement (FEIS), 1985, 2003.
- Buffalo Resource Management Plan (RMP) 1985 and Amendments.
- Interior Department Order 3310.
- Vegetation Treatments Using Herbicides in 17 Western States, Programmatic Environmental Impact Statement (EIS); Record of Decision (ROD), BLM, 2007.
- Invasive Species Management, WY-070-EA09-099, BFO, 2010.
- BLM Manual 6840, Special Status Species Management (SSS), 2008.
- BLM Wyoming Sensitive Species Policy and List, Mar 2010.
- Memorandum of Understanding, WY BLM and WY Game and Fish Department, Mar 1990.

A summary of the details of the approval follows. The project description, including specific changes made at the onsites, and site-specific mitigation measures, is included in the EA. Treatments will involve removal of small age classes of selected conifer species from curl-leaf mahogany stands using mechanical treatments and burning of individual trees from approximately 2350 acres and consists of 25 treatment blocks. Mitigation measures will include the following:

- Identified active nests migratory bird nests will be avoided.
- To protect nesting raptors, occupied nests would be subject to a seasonal timing restriction.
- Approximately a third of the project landscape on its southern end includes Greater Sage-Grouse (GSG) Preliminary Priority Habitat (PPH). No treatments will occur within the Natrona Core Area PPH from March 15-May 31, but may precede beginning in June 2013. No treatments will occur within 2-miles of occupied leks from March 15 to May 31.
- Treatment sites will be inventoried for cultural resources prior to the initiation of scheduled activities, as necessary. Following the Wyoming State Protocol Section VI(A)(1) the BLM will electronically notify the Wyoming State Historic Preservation Officer (SHPO) of all properties existing within the area of potential effect (APE). If necessary, identified cultural sites will be avoided. If any items of cultural value are observed during of the development of this project, they will be left intact and the BLM authorized officer will be notified. The BLM authorized officer will conduct an evaluation of the cultural resource prior to resumption of activities.
- The area will be monitored annually for the presence of noxious or invasive weeds. Any infestations would be handled using an integrated pest management approach.

- The public lands within the Middle Fork Management Area/Red Wall/Hole-in-the-Wall region and valley of the Middle Fork Canyon but not the rims, are closed to vehicles to reduce unnecessary resource damage such as soil disturbance, loss of vegetation and disturbance of wildlife.

Limitations: No cutting of limber pine, if in the rare event any are found.

In no case will live healthy limber pine of any size be cut, girdled, or removed. Any exceptions to this would be completed in accordance with IM No. WY-2011-003 (Five Needle Pine Management Guidelines for Wyoming BLM; refer to (pp. 22- 23, Appendix 2) and BLM Manual 6840 (Special Status Species Management). However, limber pine within the project area is not known to occur at density (greater than 5%) that would warrant thinning of healthy limber pine. Where limber pine may be removed within the treatment units, the guidelines for ponderosa pine, Douglas-fir, and juniper would be followed.

Vehicles may use established roads and ways and not making new trails or ruts. There will be no mechanical creation of roads and will leave no lasting surface disturbance, which includes but is not limited to; no tracked vehicles, no temporary structures in place for more than 14 days, etc. Any surface disturbance need will be requested in writing from the Field Manager 2 weeks prior to the disturbance.

THE FINDING OF NO SIGNIFICANT IMPACT (FONSI). The Department of Interior and Bureau of Land Management affirmed there was no significant impact of a like-structured project when they created this CX and its limiting parameters. Thus a FONSI and an EIS is not required.

COMMENT OR NEW INFORMATION SUMMARY. Since proposal development BFO received a new Interior Department policy on wilderness (see FLPMA, Sections 201, and 202), the WY BLM changed the status of limber pine to a special status species (SSS), and the U.S. Fish and Wildlife Service (FWS) published a 90-day finding that whitebark pine scientific evidence supporting consideration to determine whether the whitebark pine warrants listing as an endangered or threatened species and whether to designate critical habitat. Project development included cooperation with the Wyoming Game and Fish Department, Wyoming Office of State Lands and Investments, Wyoming Wildlife and Natural Resource Trust, Rocky Mountain Elk Foundation, and Mule Deer Foundation. Project funding commitments came from the Wyoming Game and Fish Department's Trust Fund, Wyoming Governor's Big Game License Coalition and Wyoming Conservation Corps sponsored by Devon Energy. The holders of the grazing allotments also coordinated with the project's development, see Table 3, EA, WY-070-EA10-372.

DECISION RATIONALE. The approval of this project is because:

1. Mitigation measures will reduce environmental impacts while meeting the project's need and support the long-term conservation of the special status species, limber pine.
2. The selected alternative will not result in any undue or unnecessary environmental degradation. There are no anticipated surface disturbances; no mechanically maintained roads or the creation of new roads will not occur. There are no conflicts anticipated or demonstrated with current uses.
3. Approval of this project is in conformance to the terms and the conditions of the 1985 Buffalo RMP (BLM 1985) and subsequent updates (BLM 2001) and amendment (BLM 2003). The proposed action is also in conformance to the South Bighorns Habitat Management Plan (BLM 1986) and the Middle Fork Powder River Habitat Management Plan (BLM 1980).
4. The approval of the selected alternative is because conifer species are encroaching into curl-leaf mahogany stands. Curl-leaf mahogany is shade-intolerant, and selected conifer encroachment decreases their viability. Curl-leaf mahogany stands have been shown to be critical for wintering mule deer and all treatment areas are located in crucial mule deer winter range. Ensuring the viability of

these stands should improve the long-term viability of mule deer in the southern Bighorns and should do the treatments in manners supporting the genetic diversity and infection resistance of limber pine.

5. This project approval is applicable on BLM-surface land and private lands where landowners volunteer for the treatments, as generally depicted on the map, Appendix 1, WY-070-EA10-372, incorporated here by reference. The project is also contingent in most BLM units of private landowners allowing access to the BLM units. The project is approved with full knowledge that wilderness inventories are in planning and implementation process for BLM managed lands contingent to and including the project area; see FLPMA, Sections 201 and 202. The BLM lands clearly lack wilderness characteristics as they are less than 5,000 acres.
6. The project on these units is contingent upon closely following the mitigation measures in WY-070-EA10-372 and the guidelines in Appendix 2 of the EA, *Whitebark and Limber Pine (Five Needle Pine) Management Guidelines for Wyoming BLM*; both of which are incorporated here by reference; and see FLPMA, Section 201.

ADMINISTRATIVE REVIEW AND APPEAL. The decision to implement this forest management project thinning and piling may be protested under 43 CFR 5003 - Administrative Remedies. As outlined in 43 CFR 5003.3 (a) and (b), protests of a forest management decision may be made within 15 days of the publication date of the decision notice and shall contain a written statement of reasons for protesting the decision. Per regulations, this notice constitutes the decision document for the purpose of protests, which must be filed by close of business, no later than 15 days after publication of notice of this decision, with the Field Office Manager at the Buffalo Field Office, or by mail to the Bureau of Land Management, Buffalo Field Office, 1425 Fort Street, Buffalo WY 82834. As interpreted by BLM, the regulations do not authorize acceptance of the BLM of protests in any form other than a signed, paper document that is delivered to the physical address of the BLM office within the 15-day period.

MAR 21 2013

Field Manager:  _____ Date: _____

**U.S. Department of the Interior
Bureau of Land Management**

Categorical Exclusion Not Established by Statute

DOI-BLM-WY-070-CX13-035

***Project Title:* Southern Big Horn Mountains Curl-leaf Mahogany Restoration
Within Crucial Mule Deer Winter Range; Phase 2**

***Location:* Southern Johnson County
Township 42 North, Range 84 West, Sections 4, 5, 9, 10, 20, 21, 22,
27, 28, 29, 30, 32, 33 and 34
Township 43 North, Range 84 West, Sections 5, 6, 7, 8, 16, 17, 18, 19,
20, 29, 31, 32, 33 and 34**

***Applicant/Address:* n/a**

Project Contact

***Name:* Jim Verplancke**

***Title:* Natural Resource Specialist/Wildlife Biologist**

***Office Address:* Buffalo Field Office**

***Telephone:* 1425 Fort St.**

***Email:* Buffalo, WY 82834**

U.S. Department of the Interior, Bureau of Land Management
Buffalo Field Office, 1425 Fort Street
Buffalo, Wyoming 82834 (307) 684-1100



CATEGORICAL EXCLUSION REVIEW AND APPROVAL

A. Background

Case File No.: n/a

Description of Proposed Action:

The Bureau of Land Management (BLM), Buffalo Field Office (BFO) proposes Phase 2 of a vegetation treatment to remove smaller age classes of selected conifers (primarily ponderosa pine, Douglas-fir, and juniper), and diseased or dead limber pine from curl-leaf mahogany communities that occur within crucial mule deer winter ranges in the southern Bighorn Mountains to assist with stabilizing or increasing the mule deer population. Phase 1 of the project was initiated in 2011 and continued through 2012. Treatments involved removal of small age classes of selected conifers species from curl-leaf mahogany stands using mechanical treatments of individual trees (with hand saws and pruners) from 7 units. Partnering with the Wyoming Game and Fish Department (WGFD) and local landowners, the total area treated was approximately 2,009 acres of federal and non-federal lands including around 1,282 acres of BLM lands. The BFO in cooperation with the WGFD, Sheridan Regional Office, and the BLM's Casper field Office (CFO), developed this project. Project funding commitments came from the Wyoming Game and Fish Department's Trust Fund, Wyoming Governor's Big Game License Coalition and Wyoming Conservation Corps sponsored by Devon Energy.

Mule deer populations are in decline in the area, and generally across the state and west. Selected conifer species are encroaching into mahogany stands in these areas, and they will eventually out-compete mahogany plants, which are important for mule deer survival in the region. In a study performed by WGFD in 1997 (Jellison et al 1997), mahogany was shown to comprise up to 75% of discerned fragments from mule deer fecal samples taken from the area. Ponderosa pine, Douglas-fir, and junipers exhibit a faster rate of growth than mahogany, and as they mature and their canopy closure increases, they begin to overshadow and choke out mahogany. Most conifers lacking the natural control of fire out-compete mahogany, and likely contribute to reducing the mule deer carrying capacity in the region.

Wildfire is another persistent threat to mahogany stands in the project area. The 2006 Outlaw Cave wildfire burned 815 acres of mahogany in the project area which accounted for about 8 percent of the mahogany on crucial winter ranges. The ever present fire threat demonstrates the need to maximize the quality and availability of habitat that remains. Removing selected conifers in proximity to mahogany stands will reduce the volume of standing fuels, which will interrupt further increases in litter buildup and needle drape in the mahogany shrubs. Treatments would serve as a means to buffer these shrub communities from potential wildfire by reducing fire intensity and frequency within the treatment areas.

Encroachment of selected conifers in the region will be a constant threat to the long-term viability of mahogany stands. Although the proposal will not remove this threat it should prove sufficient to conserve the stands for decades. Future treatments may be necessary when conifers re-establish post-treatment.

The project area is along the eastern foothills of the southern Big Horn Mountains, near Barnum, in southern Johnson County. The town of Kaycee is 17 miles to the east. The project area is approximately 2350 acres and consists of 25 treatment blocks of mountain mahogany stands located Township 42 North, Range 84 West, Sections 4, 5, 9, 10, 20, 21, 22, 27, 28, 29, 30, 32, 33, 34 and Township 43 North, Range 84 West, Sections 5, 6, 7, 8, 16, 17, 18, 19, 20, 29, 31, 32, 33, and 34. Treatments would occur over a five year time period. With one exception, access to the treatment blocks is across private lands, and permission from the various land owners will be required prior to treatments taking place.

Refer to attached **Map 1 – Vicinity in Section E**. Refer to attached **Map 2 - Site Map**.

Removal is by hand methods through mechanical treatments. The treatments will be done by hand with hand tools such as chainsaws, tree pruners, hand saws and axes and will selectively remove trees typically no larger than 8 inches at the base and 10 feet in height. Fallen trees will be limbed and the limbs scattered beyond the mountain mahogany stands. Sawyers will cut and scatter any tree to knee height so as to avoid creating an obstacle for large ungulates. Limbs will be no taller than knee high from ground level and will not be layered (one limb will not lie over top another limb on the ground).

Slash piles will not be created from limbed or felled trees. It is likely that treatments will require 5 years to complete including retreatments and maintenance as sapling emerge.

Shrub Structure and Fire Behavior

Curl-leaf mountain mahogany stands typically grow in rocky areas and generally do not develop substantial or contiguous surface litter or ladder fuels. Bare or rocky ground is often prevalent in the stands and herbaceous cover is patchy or sparse. The stands are therefore fairly fire resistant, burning in mosaics where adequate fuels allow surface fire to spread or to induce passive crowing in the shrubs. Where conifers have increased in density and canopy cover within mahogany stands, additional fuels are created from needle drape in the shrubs and increased surface litter. The shrub stands become more vulnerable to sustained surface and crown fires. Thinning in these areas will maintain the mountain mahogany stands' resistance to large, stand-replacing fires.

There have been five large fires in the vicinity since 1995 that have burned a total of 13,730 acres. The most recent large fire, the Outlaw Cave II, occurred in 2006 and burned about 12,300 total acres. Although a trend towards larger fires in recent years cannot be firmly established in this area, it is possible that the increased conifer cover and litter in the curl-leaf mahogany stands contributed to the acres of burned mahogany and consequently the overall fire size.

Wildlife

Approximately a third of the project landscape on its southern end includes Greater Sage-Grouse (GSG) core (preliminary priority habitat) (PPH) area; however, in a letter dated December 20, 2012 the WGFD Deputy director, John Emmerich describes the proposed treatment areas as "non-habitat but within 2 miles of 2 known, occupied leks. Mechanical treatment in non-habitat, occurring 1 time, and not resulting in any permanent activity or structure is not expected to adversely impact local GSG population. It is recommended that no treatment occur from March 15-May 31, but may precede beginning in June 2013."

For big game, the project area includes crucial winter range for mule deer and elk as well as winter yearlong range for mule deer and pronghorn; whitetail deer use the area yearlong. **Map 3** in Section E below shows the **Mule Deer Seasonal Ranges** with and adjacent to the project area.

During preliminary surveys no raptor nests were found in the treatment areas but a comprehensive survey has not been completed. If work is to occur between February 1 and July 31 a survey between April 15 and June 15 would be necessary. Several migratory bird species were observed during the preliminary surveys. It is recommended that the project work be conducted after July 31 or a wildlife biologist be present before work begins to survey for nests. A 100 foot buffer should be maintained from any nests.

Range Management

The project area includes portions of the Barnum Mountain Rd, Beaver Creek Slope, Blue Creek, Poker Creek, Slope, Slope/Mountain, and Willow Creek grazing allotments. Reduction in pine and juniper canopy cover may result in increased forage production at the project site.

Invasive Plant Management

Cheatgrass occurs along existing roads and in lighter densities on some southerly aspects. Canada thistle occurs on BLM lands along the roads and with areas exposed to wildfire and may be treated regardless of this proposed action to meet rangeland health requirements.

A recent study supports the general awareness that cheatgrass infestations in semi-arid regions contribute to the increased frequency and severity of wildfire; Balch 2013. Weeds will be inventoried during surveys pre and post treatment. If weed densities reach threshold levels determined by resource specialists, BLM will implement treatments as necessary to control them.

Cultural Concerns

As in Phase 1 of the project, reconnaissance inventories will be conducted in Phase 2 prior to the proposed hand thinning activities to locate any historic properties that may be impacted by the treatments. If such properties were located, they will be avoided to ensure that the project as proposed may proceed with no effects to historic properties.

Recreation and VRM

While the South Big Horns are generally considered an area high in recreational value, the majority of the treatment areas are on lands without legal public access. Only T42N/R84W Sections 21, 28-30 and T42N/R84W Sections 34-35 are within areas with legal public access; these units are also within the Middle Fork Management Area. There are no developed recreation sites or trails within the treatment areas. The project area is designated as a visual resource management (VRM) Class II. BLM Handbook H-8410-1 states that the VRM Class II objective 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.” Additionally, motorized travel on public lands within the region is limited to designated or existing routes to reduce unnecessary resource damage such as soil disturbance, loss of vegetation and disturbance of wildlife.

Wilderness Characteristics

The BLM lands clearly lack wilderness characteristics as they are in noncontiguous parcels of less than 5,000 acres.

B. Land Use Plan (LUP) Conformance (*sequentially number all that apply*)

(This CX worksheet tiers from and incorporates by reference the analysis and order, below.)

	Buffalo and Powder River Basin (PRB) Final Environmental Impact Statements (FEIS) Records of Decision (RODs), 1985, 2003
1	Buffalo Resource Management Plan (RMP) 1985
2	Buffalo RMP Amendments 2001, 2003, 2011
	Vegetation Treatments Using Herbicides in 17 Western States, Programmatic Environmental Impact Statement (EIS); Record of Decision (ROD), BLM, 2007
3	Invasive Species Management, WY-070-EA09-099, Oct 2010 (the ‘Weed’ EA)
4	Fortification Creek Habitat Improvement Project, WY-070-EA11, July, 2011 (the ‘Cheatgrass’ EA)
5	Southern Big Horn Mountains Curl-leaf Mahogany Restoration within Crucial Mule Deer Winter Range Environmental Assessment, WY-070-EA10-372, September 2011
	Department of Interior Order 3310 (Dec 2010)

Specific LUP Conformance:

	The proposed action conforms to the LUP(s) selected above because it is specifically provided for in the following LUP decisions:
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Or

X	The proposed action conforms to the LUP(s), even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s) (objectives, terms, or conditions)
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Plan Number (from above) Page No. (from plan)	Language (Include language from the applicable plans, add or delete rows as necessary):
1 pp. 9-10	The 1985 RMP allows: FOM-2: thinning to enhance growing conditions on forest lands FOM-3: the sale of minor forest products (posts, poles, and fuelwood)
2 pp. 5-8	For forestry and fire management, the objectives of the BFO 1985 Resource Management Plan as amended are: <ul style="list-style-type: none"> • Maintain and enhance the health, productivity, and biological diversity of forest and woodland ecosystems. • Restore the natural role of fire in the ecosystem; and to cost effectively protect life, property, and resource values from wildfire.
3 pp. 11-16, 44	This CX tiers from and incorporates by reference the Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement and Record of Decision (2007) but is specific to invasive species management in the Buffalo Field Office. Treatment methods, timing, and mitigation measures are described in the plan. If weed infestations require action as a result of the proposed treatments, a further NEPA assessment will tier to Invasive Species Management, WY-070-EA09-099 (Oct 2010) and to the ‘cheatgrass’ EA below.
4 pp. 6	This CX also tiers from and incorporates by reference the Vegetation Treatments Using Herbicides Programmatic Environmental Impact Statement and Record of Decision (2007) but is specific to controlling cheatgrass in the Buffalo Field Office and specifically in the Fortification Creek Planning Area. If weed infestations require action as a result of the proposed treatments, a further NEPA assessment will tier to Fortification Creek Habitat Improvement Project, WY-070-EA11 (July, 2011) and to the ‘weed’ EA above.
5 WY-070- EA10-372	This CX also tiers from and incorporates by reference the complete analysis for the Southern Big Horn Mountains Curl-leaf Mahogany Restoration within Crucial Mule Deer Winter Range Environmental Assessment, WY-070-EA10-372 (September 2011).

C. Compliance with NEPA:

The proposed action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with (select one):

43 CFR 46.210

516 DM 11.9

Appropriate CX number and text, or paraphrase of the text:

C. Forestry

(4) Pre-commercial thinning and brush control using small mechanical devices.

(5) Disposal of small amounts of miscellaneous vegetation products outside established harvest areas, such as Christmas trees, wildings, floral products (ferns, boughs, etc.), cones, seeds, and personal use firewood.

This CX is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 43 CFR Part 46.215 apply.

Explanation of why there is no potential for significant impacts:

None of the extraordinary circumstances apply, though additional explanation follows:

There are no significant impacts on public health or safety; however firefighter and public safety will be enhanced should wildfire occur in these areas after treatments are complete.

Wilderness characteristics are not present as the area is less than 5,000 acres. The project does not negatively impact Greater Sage-Grouse (GSG) core or connectivity preliminary priority habitat (PPH); or in other sensitive, threatened or endangered species' habitat. Refer to Section D. Pertinent design features, stipulations or mitigation, which outlines seasonal constraints for disruptive activities.

All trees would be visually inspected prior to treatment to ensure the absence of any migratory bird nest to prevent a taking under the Migratory Bird Treaty Act.

Though invasive plant species occur on lands within or adjacent to the project sites, this project will not significantly contribute to or impact the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area. See further comments in Section D, pertinent design features and mitigation measures which address invasive plant management.

D: Signature

I considered this review and determined that the proposed action described in this CX worksheet conforms to the land use plan and is categorically excluded from further environmental analysis. It is my decision to approve the proposed action.

Pertinent design features, stipulations or mitigation (*if applicable*):

Approximately a third of the project landscape on its southern end includes Greater Sage-Grouse (GSG) Preliminary Priority Habitat (PPH). No treatments will occur within the Natrona Core Area (PPH) from March 15-May 31, but may precede beginning in June 2013.

Desirable, healthy limber pine of all age classes, to include infected but thriving limber pine found in the treatment areas will be untreated, uncut, un-girdled, or marked and avoided with the exceptions explained in the project proposal in Section 2, above.

Prior to treatment all trees should be visually inspected to ensure the absence of any migratory bird nest.

To protect nesting raptors, occupied nests would be subject to a seasonal timing restriction. Treatment sites will be inventoried for cultural resources prior to the initiation of scheduled activities, as necessary. Following the Wyoming State Protocol Section VI(A)(1) the BLM will electronically notify the Wyoming State Historic Preservation Officer (SHPO) of all properties existing within the area of potential effect (APE). If necessary, identified cultural sites will be avoided. If any items of cultural value are observed during of the development of this project, they will be left intact and the BLM authorized officer will be notified. The BLM authorized officer will conduct an evaluation of the cultural resource prior to resumption of activities.

The area will be monitored annually for the presence of noxious or invasive weeds. Any infestations would be handled using an integrated pest management approach.

During project implementation, motorized use will be restricted to designated or existing roads and trails to the maximum possible extent. Where off-road travel is necessary to accommodate the objectives of the project, travel will be limited to durable surfaces in dry conditions to avoid the creation of trails, ruts, etc.

Vehicles may use established roads and ways and not making new trails or ruts. There will be no mechanical creation of roads and will leave no lasting surface disturbance, which includes but is not limited to; no tracked vehicles, no temporary structures in place for more than 14 days, etc. Any surface disturbance need will be requested in writing from the Field Manager 2 weeks prior to the anticipated disturbance.

Reconnaissance inventory (as described in the BLM-WY SHPO PA: IV.C.2.b) will be conducted prior to authorizing any activity associated with the project. If significant cultural resources are discovered the plan will be modified as necessary to prevent impacts to those resources.

This decision does not constitute or commit BLM funds for this project.

Authorizing
Official:



Date:

3/21/13

Consultation and Coordination

EA Prepared by:

Jim Verplancke, Natural Resource Specialist/Wildlife Biologist

John Kelley, Planning and Environmental Coordinator

Specialists included in Preparation/Review of the EA:

Seth Lambert, Cultural Resources

Dustin Kavitz, Range Specialist

Jennifer Walker, Fire Ecologist

Allison Barnes, Outdoor Recreation Planner

Bert Jellison, WY Game and Fish Department, Terrestrial Habitat Biologist

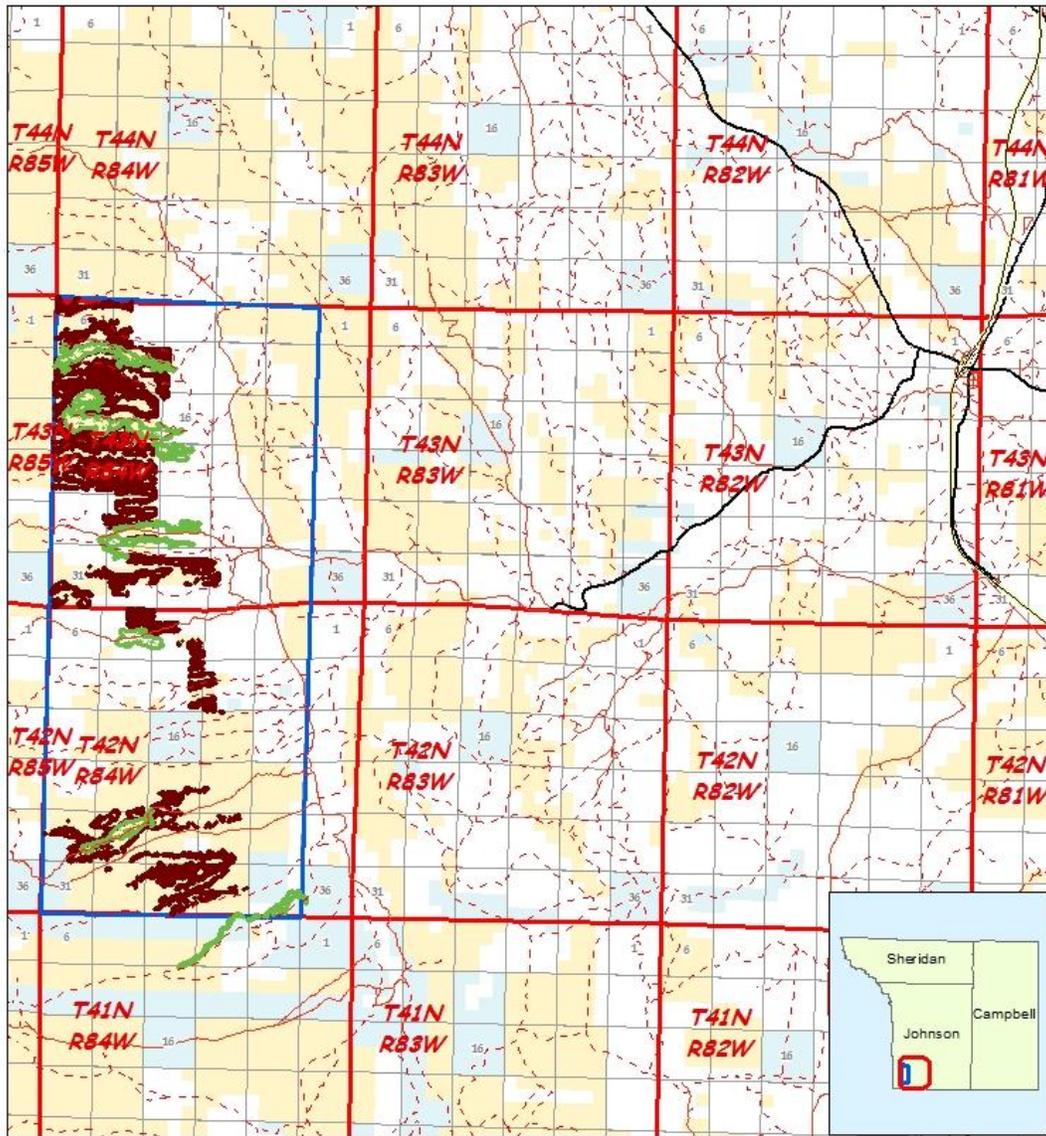
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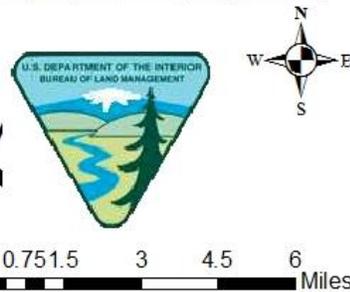
E. Attachments (below and following pages)

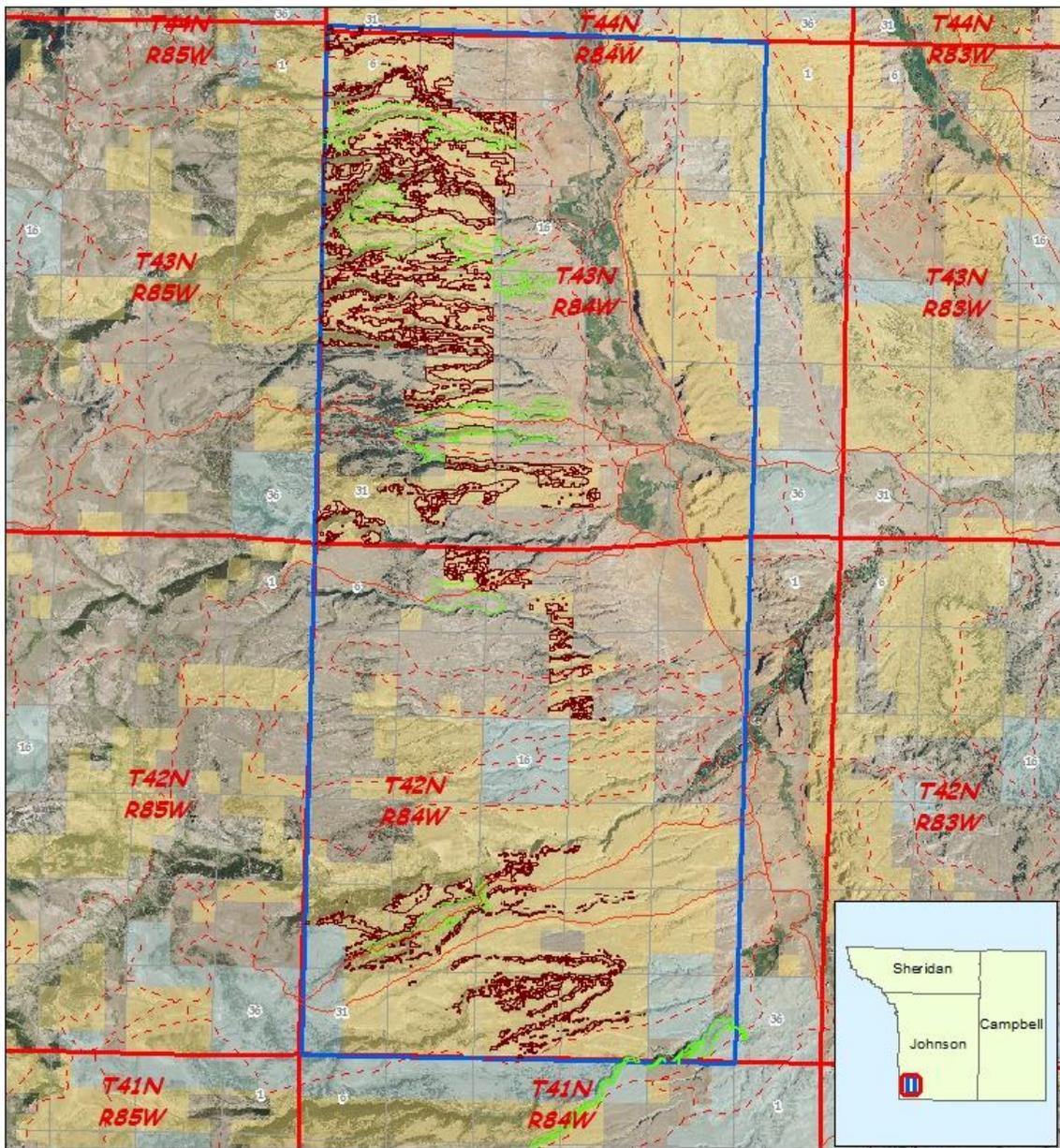
- Map 1 – Vicinity
- Map 2 – Site Map
- Map 3 – Mule Deer Seasonal Ranges



Map 1; Vacinity Map
Southern Big Horns - South Johnson County
Moutain Mahogany Restoration Project Area

- South Big Horns; Phase 2 Project Area
- Phase 2 Treatment Areas
- Phase 1 Treatment Areas

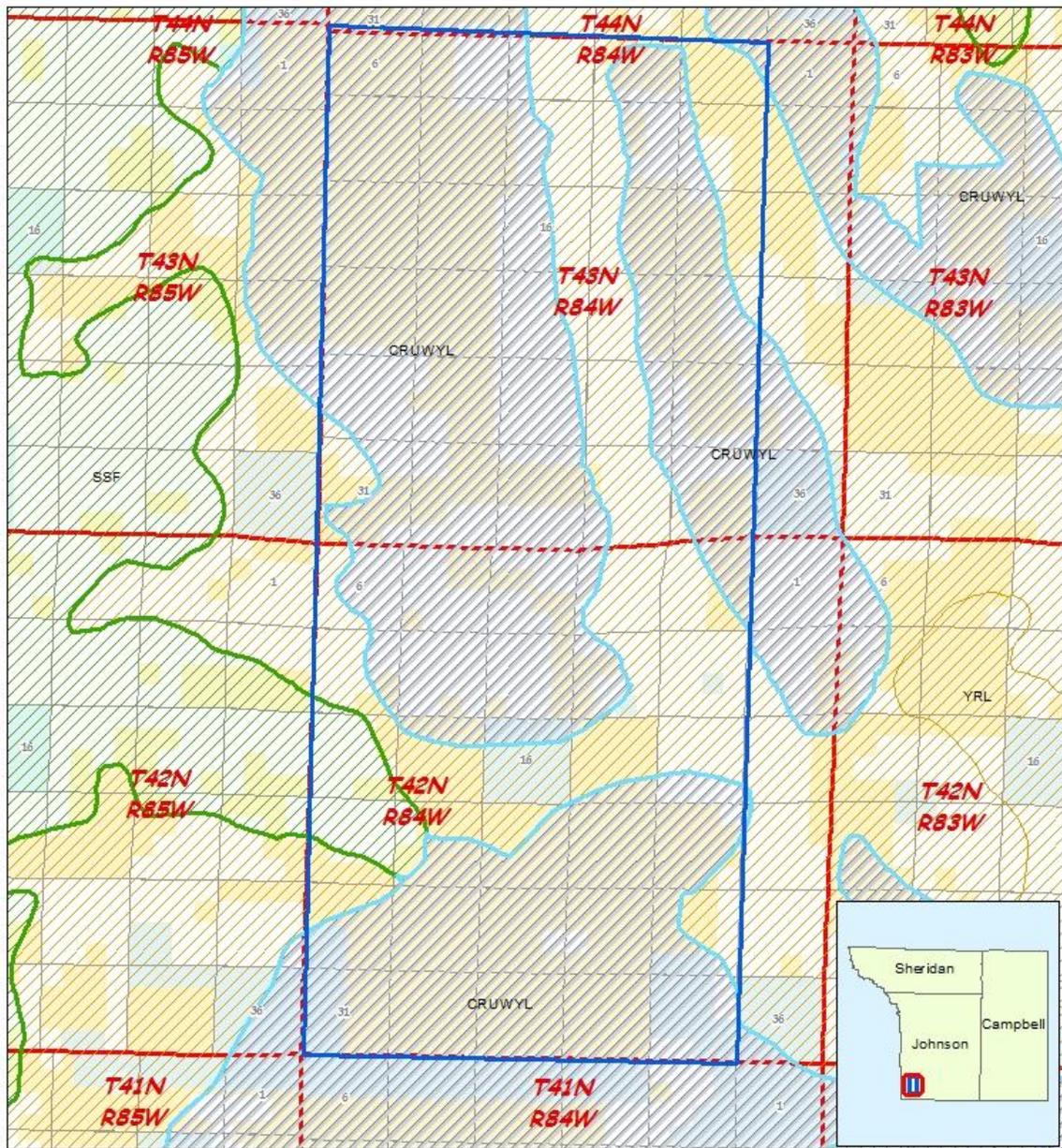




Map 2; Site Map
Southern Big Horns - South Johnson County
Mountain Mahogany Restoration Project Area

- South Big Horns; Phase 2 Project Area
- Phase 2 Treatment Areas
- Phase 1 Treatment Areas





**Map 3; Mule Deer Seasonal Ranges
 Southern Big Horns - South Johnson County
 Mountain Mahogany Restoration Project Area**

- South Big Horns; Phase 2 Project Area
- Spring, Summer & Fall (SSF)
- Yearlong (YRL)
- Crucial Winter (CRUWYL)

