

Output 2: Implementation Checklist

Project: Sandstone Focus Area – Sandstone West		District: Brush Creek-Hayden Ranger District
Partnership Project: Yes		Primary Partner(s): Wyoming State Forestry Division
Accounting Unit: Sandy Battle		Accounting Unit: Choose an item.
Objective(s): This project will meet six of the seven objectives of the LaVA project: #1 mitigate hazardous fuel loading; #3 enhance forest and rangeland resiliency to future insect and disease infestations; #4 protect infrastructure and municipal water supplies #5 restore wildlife habitat; #6 enhance access for forest visitors and permittees; and #7 provide for human safety.		
Project Description: The project includes about 934 acres of non-commercial vegetation management (fuel treatment and aspen enhancement). The primary goal is to return aspen stands to a healthy state by removing decadent aspen and encroaching conifers, while also achieving secondary goals of reducing hazardous fuels and improving wildlife habitat. Activities will include mastication or cutting and piling of live and dead aspen and conifers. Piles will be burned at the appropriate time after completion of cutting.		
Location Description: The project area is located on the western slope of the Sierra Madre Range, north of Wyoming State Highway 70. Preliminary treatments are located north of Highway 70 and the Savery Stock Drive (National Forest System Road [NFSR] 852), south of NFSR 870, west of Deep Creek Road (Carbon County Road 401), and along the Belvidere Ditch.		
Legal Location: This project is in Township 13 North, Range 87 West, Sections 3, 4, 5, 6 7, 8, 9, and 10; 6 th Principal Meridian; Carbon County, Wyoming.		
Management Areas: This project is in Forest Plan Management Area (MA) 5.13 (Forest Products), MA 4.2 (Scenery), MA 3.56 (Aspen Maintenance and Enhancement), and MA 8.6 (Administrative Sites).		
Treatment Opportunity Areas: This project is located partially in the Scenery and Aspen Emphasis Treatment Opportunity Area (TOA), partially in the Forest and Rangeland Resiliency and Forest Products TOA, and partially in the overlapping the Fuels Treatment and Safety Emphasis TOA.		
Pinyon Data Location(s): https://usfs.box.com/s/63hdadppd169s9t1oumeguyiydarnyve		
GIS Data Location(s): T:\FS\NFS\MBRTB\Project\LaVA_Implementation\GIS\Sandstone\Data\2_Implementation\SandstoneWestPhase1\SSWPh1_Implementation.gdb		

Available Treatment Acres from Record of Decision					
Stand Initiation:	79,472	Intermediate:	148,116	Other Treatment(s):	49,523

Project Treatment Acres					
Stand Initiation:	69	Intermediate:	865	Other Treatment(s):	0
Treatment Type	Acres	Treatment Type	Acres	Treatment Type	Acres
Seed Tree Cut	69	Shelterwood Seed (aspen)	834	N/A	0
		Hand thin	31		

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Management Areas			
Management Area	Treatment Acres	Management Area	Treatment Acres
3.56	274	5.13	171
4.2	429	8.6	60

Wildlife Areas Acreage			
Security Area (Accounting Unit)	Treatment Acres	Lynx Analysis Unit	Treatment Acres
N/A	0	N/A	0

Specified Road Work (Type)	Miles	Temporary Road Mileage Available	Project Temporary Road Mileage	Balance of Temp Roads
N/A	0.0	557.4	0.0	557.4

All temporary road mileage is estimated. Actual road miles will be tracked during the monitoring phase.

Summary of How Public Feedback was Incorporated / Addressed:

No feedback was received for the Sandstone Focus Area in general, or specifically for the Sandstone West project.

Project Validation

Resource specialists have confirmed the project: a) meets applicable Forest Plan standards and guidelines; b) is consistent with the Standard Operating Procedures (SOPs), design features, Modified Final Environmental Impact Statement (MFEIS), and Record of Decision (ROD); c) surveys and fieldwork has been completed; and d) if necessary, provided any additional design features.

A set of standard design features are applied to each project prior to its implementation. Any additional project design features have been approved by the responsible official. The sections below list the design features by resource area.

Amphibians and Fisheries

Objective: Conserve populations of amphibian and fisheries species and maintain or improve habitats.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Keep heavy equipment out of streams during fish spawning, (May 15 to July 31 for cutthroat and rainbow trout, October 15 to November 30 for brook trout and brown trout). (DF-AF-1)	Yes	Colorado River cutthroat trout in Belvidere ditch.
Install stream crossings as perpendicular to flow as practicable. (DF-AF-2)	Yes	Click or tap here to enter text.
In consultation with fisheries and timber staff, Forest Service resource specialists will locate, design, and designate any temporary road crossings of perennial streams. (DF-AF-3)	Yes	Click or tap here to enter text.
Avoid direct ignition in riparian and wetland areas; allow fire to back into these areas. (DF-AF-4)	Yes	Click or tap here to enter text.
Use spill containment equipment if it is necessary to locate staging and refueling areas within water influence zones. (DF-AF-5)	Yes	Click or tap here to enter text.
Felled material or other debris with potential to block stream culverts or bridges will be removed from the high-water mark. (DF-AF-6)	Yes	Click or tap here to enter text.
In consultation with fisheries staff, develop site-specific design criteria to ensure protection of boreal toad, wood frog, and northern leopard frog habitats and populations. (DF-AF-7)	No	Surveys did not identify any sensitive amphibians in the project area.

Heritage Resources

Objective: Protect cultural sites that need protection; fulfill National Historic Preservation Act requirements; and avoid, minimize, or mitigate unexpected adverse effects to heritage resources.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
National Historic Preservation Act compliance will be completed for each treatment area prior to implementation. This may include literature reviews, field surveys (if deemed necessary by the heritage specialist), and completion of State Historic Preservation Office and Tribal consultation. Surveys, reporting, and consultation may be conducted in accordance with a programmatic agreement. State Historic Preservation Office and Tribal consultation may result in additional cultural resource avoidance or protection measures. (DF-HR-1)	Yes	Click or tap here to enter text.
If cultural materials or human remains are discovered, all activities in the immediate area will stop, the area will be secured, and a Forest Service archaeologist and District Ranger will be notified immediately. Work will not resume in that area until the archaeologist has evaluated the material and notified the District Ranger that the applicable requirements of 36 CFR 800 and the Native American Graves Protection and Repatriation Act have been completed. (DF-HR-2)	Yes	Click or tap here to enter text.
Site-specific measures to protect or enhance heritage resources will be determined at the time of treatment implementation. (DF-HR-3)	Yes	Historic sites were identified and excluded from treatment units.

Hydrology and Wet Areas

Objective: Maintain long-term ground cover, soil structure, water budgets, and flow patterns of wetlands to sustain their ecological functions.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Fens: Treatment will not occur in fens. In addition, fens will be protected by a 300-foot limited-action buffer in which heavy equipment use will be prohibited. (DF-HWA-1)	No	All fens have been excluded from treatment units.
Wet meadows: No operation of heavy equipment, prescribed fire control lines, or tree removal will occur in seasonally wet, herbaceous- or shrub-dominated wetlands, commonly referred to as wet meadows. Wet meadows may also contain trees but do not include aspen woodlands or riparian gallery forests. (DF-HWA-1a)	Yes	All wet meadows have been excluded from treatment units.
Wetlands, riparian areas, and aquatic ecosystems: When treating within non-excluded wetlands (see above), riparian areas, and aquatic ecosystems: (DF-HWA-2) <ul style="list-style-type: none"> • Restrict temporary roads, landings, or main skid trails as recommended by resource specialists and approved by the line officer; • Hand fall and leave in place; or • Treat with mechanized equipment over a combined surface of 12 inches of frozen ground and snow. 	Yes	All wetlands have been excluded from treatment units.

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Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Water influence zone (WIZ): A buffer with a minimum horizontal width of 100 feet from the top of each stream bank or edge of wetlands will be applied to perennial and intermittent streams, lakes, reservoirs, riparian areas, and wetlands. However, buffers may vary depending on the type of wet area and site conditions, as agreed upon by resource specialists. When treating buffers including the WIZ, equipment use is permitted; (DF-HWA-3) <ul style="list-style-type: none"> • If winter activities occur, the over-snow design feature (DF-SOIL-1) will apply. • Where feasible, avoid temporary roads, landings, main skid trails, or slash piles in the WIZ. • If the aforementioned are necessary in the WIZ, consult resource specialists. Prior to working in WIZ buffers, resource specialists will assess the need for site-specific design criteria for retention of coarse woody debris. 	Yes	Buffers have been flagged and marked around all water influence zones.
Winching of trees across streams is prohibited. (DF-HWA-4)	Yes	Click or tap here to enter text.

Infrastructure

Objective: To protect improvements and investments.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
All Forest Service authorized improvements (for example, fences, water improvements, survey monuments) will be protected during management activities. (DF-INF-1)	Modified	<ul style="list-style-type: none"> • Only light duty trucks are allowed on NFSRs 810 and 810.1 to protect the integrity of asphalt on these roads. • Water valves for the Sandstone Cabins will be flagged and avoided by all project traffic and operations to prevent damage to this infrastructure. • Range fences will be cut next to existing gates, if necessary and when possible. • The contractor will repair fences to their condition prior to project implementation if they are damaged or cut, to maintain use of these range improvements.
Slash piles should be removed as soon as practicable. If possible, locate all machine piles at least 100 feet from infrastructure. If possible, locate hand piles at least 50 feet from infrastructure. If not possible to meet the aforementioned distances, consult the zone fire staff or forest fuels specialist. (DF-INF-2)	Modified	See Additional Design Feature ADD-1 at the end of this checklist, which addresses slash pile specifications.

Invasive Weeds

Objective: Maintain ecological integrity by preventing the introduction and reducing the spread of noxious weeds and invasive plant species in the project area. The following design features were developed to comply with the direction in the forest plan, Executive Order 13751 – Safeguarding the Nation from the Impacts of Invasive Species, and the USDA Forest Service guide to noxious weed prevention practices.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Cleaning of equipment: Require equipment to be cleaned of mud and plant debris and inspected before vehicles are moved into the project area to prevent introduction or spread of noxious or invasive weed species. (DF-INV-1)	Modified	Equipment cleaning is also required when leaving block C before entering block A or B to reduce risk of spread of oxeye daisy and houndstongue present in block C to other blocks.
Vegetation treatments: Manage vegetation treatments to promote native species and to hinder weed species germination. Prior to implementation, field conditions will be assessed to locate areas with existing infestations of weeds. Areas may be excluded from prescribed burning where there are infestations of fire-proliferating species (cheatgrass and musk thistle). Weed-infested areas included in burns, except for annual grasses, will be treated with appropriate herbicides or other control methods, as needed, to minimize the spread of weed species pre-treatment, post-treatment, or both. (DF-INV-2)	Yes	Click or tap here to enter text.
Seeding: On sites where the probability of erosion or weed infestation is high, disturbed areas will be seeded with an appropriate mix of native plant species per the “Guidelines for Revegetation for the Medicine Bow-Routt National Forests and Thunder Basin National Grasslands” (signed 2007, as updated). Areas may not need to be seeded where duff or slash cover the ground, or where natural revegetation is expected to occur quickly. The intent is to intervene only if necessary to establish effective ground cover to control erosion, prevent weeds, and meet scenic objectives. (DF-INV-3)	Yes	Click or tap here to enter text.
Imported materials: All materials imported from off-forest (erosion control materials, soil, mulch, etc.) will be certified weed-free or from a weed-free source or area. Forest-level source material (gravel pits and borrow areas) used for individual treatments will be inspected prior to use to inventory noxious weed presence and treated with herbicide as needed. If inspections cannot occur before implementation, identify where the material came from and monitor for noxious weed presence. (DF-INV-4)	No	No imported materials are needed.

Old Growth

Objective: To maintain or enhance old forest across the landscape.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
If treatment in old growth is planned, replacement acres will be identified prior to implementation, per Forest Plan biological diversity standard 1. Vegetation management can be conducted in these stands if treatments maintain or promote characteristics of old growth stands, new stands are identified that meet the requirements of old growth, and these stands are incorporated into the Medicine Bow National Forest old-growth strategy. Treatment of old growth is prohibited in Forest Plan MA 5.15. (DF-OG-1)	No	No treatment in old growth.

Public Safety

Objective: To provide safe conditions for administrative operations and public uses.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Forest Service personnel will provide advanced notice to the public if roads are temporarily closed during project activities. Alternate access routes may be identified. Forest Service personnel will work cooperatively with the applicable federal, state, county, and local governments to post road closure information. Traffic control will comply with the Manual for Uniform Traffic Control Devices. (DF-PS-1)	Yes	Click or tap here to enter text.

Rangeland Resources

Objective: Maintain grazing opportunities on suitable rangelands to achieve desired conditions. Desired condition includes emphasis on healthy native plant communities, minimizing noxious weeds and other non-native species.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Treatment opportunities must be coordinated with Forest Service rangeland management specialists to provide adequate time to plan changes in grazing management and to limit effects to allotment management and permittee operations. (DF-RNG-1)	Yes	Click or tap here to enter text.

Rare Plant Species and Sensitive Ecosystems

Objective: Maintain ecological integrity and functioning of uncommon, sensitive, or otherwise vulnerable ecosystems. Protect populations of threatened, endangered, and sensitive plant and pollinator species and maintain viability of all plant species in the project area. The following design criteria were developed to comply with the standards and guidelines in the Forest Plan, meet the requirements of the National Forest Management Act and 2012 Final Planning Rule, and conform to the policy described in Supplement 2600-2017-1 to the Forest Service Manual 2600 – Wildlife, Fish, and Sensitive Plant Habitat Management, Chapter 2670 – Threatened, Endangered, and Sensitive Plants and Animals.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Rare plants: Threatened, endangered, Rocky Mountain Region sensitive, and local concern plant species will be subject to a limited-action buffer (typically 30 to 100 feet) in which heavy equipment will be prohibited and other activities may be limited, unless otherwise agreed upon by the botanist and District Ranger. Specific buffer distances will depend on plant and habitat characteristics and will be determined at time of discovery. (DF-TESS-1)	Yes	All known rare plant populations in need of protection have been adequately buffered.
Meadows: Use of heavy equipment is prohibited in meadows and grasslands unless no other option is available. If heavy equipment use cannot be located outside these areas, Forest Service resource specialists will be contacted prior to implementation to determine whether additional surveys are needed, or special requirements are warranted to protect site integrity. (DF-TESS-2)	Yes	Meadows have been excluded from the project area.
Pollinators: In consultation with Medicine Bow National Forest resource specialists, conduct vegetation management activities in a manner that protects or enhances pollinator habitat. The pollinator-friendly best management practices for Federal lands (draft, May 2015 or finalized version) will be used as a guide. (DF-TESS-3)	Yes	No special measures necessary.

Recreation

Objective: Maintain or improve the condition of recreation resources while enhancing recreation opportunities by improving public safety and accessibility around recreation features.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Remove operational slash and merchantable materials from developed recreation sites that are the direct result of logging the site. (DF-REC-1)	Yes	Click or tap here to enter text.
Do not implement treatments in developed campgrounds during the highest periods of use or when damage to campground features is likely to occur due to snow depth. If treatments require implementation during snow cover or high use periods, coordinate with recreation staff to minimize conflicts with recreation use and damage to infrastructure. (DF-REC-2)	Yes	Click or tap here to enter text.
Temporary road or skid trail crossings of designated trails will be kept to a minimum. Any crossings will be perpendicular to designated forest trails to the extent practicable. (DF-REC-3)	No	No designated trails in the project area.

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Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Minimize overlaying skid trails or haul roads on nonmotorized system trails. If trails are used as skid trails or haul roads, they will be returned to pre-existing conditions. Trail widths will not be increased. (DF-REC-4)	No	No non-motorized system trails in project area.
When activities preclude use of a nearby trail, a) notify the public; b) consider identifying timeframes for safe travel on the trail; c) if activities are expected to preclude use for more than one season and a detour is feasible, provide a detour; and d) place warning signs on all trail access points and along the trail where treatment activities are occurring. (DF-REC-5)	No	No trails in the project area.
Unauthorized user-created routes within treatment boundaries may be decommissioned to discourage continued, illegal motorized use and to offset effects to resources. (DF-REC-6)	Yes	Unauthorized user created routes may exist within the project area.
To the maximum extent possible, alternate route(s) or detours will be used during implementation to allow continued use of the Continental Divide National Scenic Trail and to mitigate scenery management effects during vegetation management operations. (DF-REC-7)	No	The CDNST is not in the project area.
No skidding is allowed on or across the Continental Divide National Scenic Trail without prior coordination with recreation staff. Any skidding on or across the trail will be located to limit damage to the trail, which will be returned to pre-treatment condition. (DF-REC-8)	No	The CDNST is not in the project area.
Coordinate with recreation staff if vegetative treatments are planned on or adjacent to off-highway vehicle trails. Off-highway vehicle trails will be returned to pre-existing conditions. (DF-REC-9)	No	No off-highway vehicle trails in the project area.
Coordinate with recreation staff if winter operations are planned on snowmobile trails. (DF-REC-10)	No	No winter operations are planned for this project.
Design and implementation of vegetative treatments or associated activities (for example, access routes, staging, etc.) within MA 8.22 Ski Based Resorts – Existing and Potential) shall be coordinated with the Forest Service ski area permit administrator to ensure compatibility with current and potential recreational opportunities. (DF-REC-11)	No	No MA 8.22 in project area.

Scenic Resources

Objective: To provide high-quality scenery while allowing multiple-use management to occur.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
In all treatment areas, follow general direction and associated standards and guidelines in the “Scenery Management” section of the Forest Plan (pages 1-56 to 1-58). (DF-SCN-1)	Yes	Click or tap here to enter text.
Along scenic byways, burned slash piles will be rehabilitated, if needed, within four years of the activity to eliminate the appearance of uncharacteristic disturbance. (DF-SCN-2)	Yes	Click or tap here to enter text.

Soils

Objective: Minimize disturbances to soil properties (physical, chemical, and biological) to ensure inherent ecological capacity and hydrologic functions of the soil resources are maintained.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
When activities are planned over snow or frozen ground: <ul style="list-style-type: none"> Conduct activities when frozen soil is more than 4 inches deep or snow or a combination of compactable snow and frozen soil is more than 12 inches thick. Snow quality should be such that it will compact and form a running surface for equipment by being moist and non-granular. (DF-SOIL-1) Additional site-specific design features may be developed to minimize resource concerns. 	No	No winter operations are planned.
Prohibit soil-disturbing activities on slopes greater than 60 percent and on soils susceptible to high erosion and geologic hazard. Site-specific design features will be developed if these areas cannot be avoided. (DF-SOIL-2)	Modified	No treatment on slopes greater than 60 percent. See Additional Design Feature ADD-2 at the end of this checklist that addresses erosive soils and geologic hazards.
For mechanical treatments, maintain a minimum 60 percent effective ground cover across treatment units throughout the implementation period to provide long-term organic matter, nutrients, and erosion control. (DF-SOIL-3)	Yes	Click or tap here to enter text.
Site-specific design features will be developed if treatment activities include operation of heavy equipment on slopes greater than 40 percent. (DF-SOIL-4)	No	No treatment on slopes greater than 40 percent.
Designated skid trails will be used, when applicable, during timber harvest. Designated skid trails are recommended if more than three passes over the same ground is necessary or when not on flat ground. Designated trails are not necessary when harvesting over frozen ground, snow, or both. (DF-SOIL-5)	Modified	Main access routes into and within units will be designated to allow monitoring and post-treatment rehabilitation, if needed. See Additional Design Feature ADD-3 at the end of this checklist, which addresses rehabilitation of access routes and skid trails.
Where feasible, skid trails and landings from past harvests will be used to minimize new soil disturbance. (DF-SOIL-6)	No	Skid trails and landings are not needed because this is not a timber harvest project.
Equipment operation shall not occur when ground conditions are such that extensive damage will result. If ruts develop that are six inches deep and 30 feet long or more, activities should stop. (DF-SOIL-7)	Yes	Click or tap here to enter text.

Temporary Road Construction, Landings, and Skid Trails

Objective: To decompact compacted soil in the temporary road surfaces, restore natural drainage, and prevent unauthorized motorized use after vegetation management.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
Erosion Control: Recontour temporary road template to the original contour to permit normal maximum flow of water. (DF-RdEC-1)	No	No temporary roads in project.
Erosion Control: Remove culverts, install water bars, and restore stream channels to near natural dimensions. (DF-RdEC-2)	No	The access route stream crossing from block B to block C will not need a culvert installed. Note: this access route is not considered a temporary road because traffic will be limited to a few equipment crossings and no materials will be hauled.
Erosion Control: For the entire length of the temporary road, provide 35 percent to 65 percent ground cover by scattering debris on the route footprint. Ground cover range is provided to account for different harvest methods and project objectives. (DF-RdEC-3)	No	No planned temporary roads in the project.
Compaction: Rip or otherwise roughen the length of the temporary road prism to eliminate compaction, ensuring an average depth of 6 to 12 inches, as needed. Avoid continuous furrow lines as they function as conduits for water transport and do not eliminate compaction within the entire prism. (DF-RdCOM-1)	No	No planned temporary roads in the project.
Visuals and Motor Vehicle Access: Temporary road rehabilitation methods will be designed to effectively prevent motorized vehicle use by utilizing berms, boulders, slash, mulch, dead trees, or a combination. The obliteration method(s) selected will cover the temporary road for the sight distance from its origin. For the entire length of the temporary road, provide 35 percent to 65 percent ground cover by scattering debris on the route footprint. (DF-RdVis-1)	No	No planned temporary roads in the project.
Timing: Complete rehabilitation of temporary roads will occur within three years after the vegetation management treatments have been completed. (DF-RdT-1)	No	No planned temporary roads in the project.
Timing: Skid trails and landings will be rehabilitated as needed to minimize soil and hydrologic effects. Site-specific measures will be developed at time of implementation. (DF-RdT-2)	Modified	Materials will be skidded into slash piles. See Additional Design Feature ADD-3 at the end of this checklist, which addresses rehabilitation of access routes and skid trails.

Wildlife

Objective: Conserve populations of threatened, endangered, and sensitive species and maintain or improve wildlife habitats.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
General: Vegetation management and ground-disturbing actions within ¼ mile of suitable goshawk nesting habitat will be surveyed using the accepted protocol (Joy et al. 1994) between June 19 and August 4 of the year prior to actions or the year actions are expected to occur. Where active nests or territories are identified, Forest Plan standards will apply (USDA 2003a). (DF-WILD-1)	No	Survey completed in 2024. No active goshawk territories were located.
Migratory Birds: Outside the wildland-urban interface, vegetation management actions will be designed to retain or promote unique features for overstory and understory diversity if feasible. These features can include items such as snags, uncommon trees, or woody debris. (DF-MB-1)	No	Project is in wildland-urban interface.
Preble's Meadow Jumping Mouse: No treatment will occur in the Preble's meadow jumping mouse Area of Influence (766 acres) that occurs in the LaVA project area, located adjacent to the upper Laramie River in the southeast corner of the Fox Wood accounting unit. This area occurs within Township 13 North, Range 77 West, section 33 and Township 12 North, Range 77 West, section 4. (DF-PM-1)	No	Project is not in Preble's meadow jumping mouse Area of Influence.
Columbian sharp-tailed grouse*: Prioritize treatment in Columbian sharp-tailed grouse habitat to manage conifer invasion in shrublands and manage over-mature (more than 40 percent canopy cover) mountain shrublands, especially Gambel oak. Prioritize treatment on ridges, mesas, and other flat topography. (DF-CS-1)	No	Project is not in habitat for the Columbian sharp-tailed grouse.
Columbian sharp-tailed grouse*: Prescriptions can treat up to 20 percent of over-mature sagebrush shrublands. Individual treatment areas can vary up to two to 10 hectares. Prioritize treatment in over-mature stands (more than 40 percent canopy cover). Retain some over-mature stands within 400 meters of leks. (DF-CS-2)	No	Project is not in habitat for the Columbian sharp-tailed grouse.
Columbian sharp-tailed grouse*: Prescriptions can treat up to 30 percent of over-mature mountain shrublands, focusing on Gambel oak. Individual treatment areas can vary up to 20- to 100-hectare patches. Future treatments can occur at 5- to 10-year intervals in remaining stands. Where mountain shrublands comprise less than 15 percent of the area, prescriptions can treat up to 10 percent of the over-mature mountain shrublands with subsequent treatments at 10- to 15-year intervals. Treatment areas can vary up to 2- to 10-hectare patches. (DF-CS-3)	No	Project is not in habitat for the Columbian sharp-tailed grouse.
Columbian sharp-tailed grouse*: Prescribed fire can occur before April 15, during September if there will be substantial early fall snow to cover treated areas, or after September. (DF-CS-4)	No	Project is not in habitat for the Columbian sharp-tailed grouse.
Columbian sharp-tailed grouse*: Treated areas should be rested from livestock grazing for one to two growing seasons unless mountain shrubs have resprouted sufficiently and grass and forb cover is adequate for long-term habitat productivity. If mountain shrub and grass and forb response is not adequate, additional measures such as adaptive livestock management or temporary fencing can be adopted until recovery occurs. (DF-CS-5)	No	Project is not in habitat for the Columbian sharp-tailed grouse.

Design Feature	Applicable? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale.
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* Design criteria for shrubland treatments within two kilometers (1.24 miles) of Columbian sharp-tailed grouse leks (based on Hoffman and Thomas 2007 and Hoffman et al. 2015).

Additional Design Features

Objective: To provide additional, site-specific protection for resources not identified elsewhere in the checklist.

Design Feature	Describe purpose and rationale for the added design feature.
ADD-1 – Slash File Specifications The following specifications apply to slash piles on this project: <ul style="list-style-type: none"> Machine piles should be located at least 450 feet from private property. Maximum pile size is 20 feet high by 60 feet wide by 500 feet long. Minimum pile size is 15 feet high by 30 feet wide by 50 feet long. Minimum spacing between piles is 200 feet. No piling with 100 feet of Highway 70. No piling within 50 feet of open National Forest System Roads. Piles should be located a minimum of 40 feet from residual trees (cutting additional trees to facilitate piling is allowed). No piling within 100 feet of unit boundary, unless the unit abuts an opening or other area where no trees are present outside the unit. No machine piling within 100 feet of the Belvidere Ditch. If hand piles are constructed, the minimum size should be 6 feet high by 6 feet wide by 6 feet long. No piling within 100 feet of existing fences. No piling in an area west of the Sandstone Work Center, north of the Belvidere ditch and east of NFSR 11.1J to protect nearby structures. Masticate only in this area. 	To reduce the risk to private property, vegetation, and infrastructure from pile burning.
ADD-2 – Erosive Soils and Geologic Hazards The following site-specific design elements apply to treatments adjacent to the Belvidere Ditch: <ul style="list-style-type: none"> No mechanical equipment is allowed within 50 feet of the top of the bank of the ditch. Equipment can reach in to cut or lift out material, but not skid (no ground disturbance). Hand thinning is allowed up to the top of the bank of the ditch. Trees should be felled away from the ditch and bucked so that they do not enter the ditch. Thin live healthy trees to 10-foot spacing. Leave tree species preference in order from most to least desirable: aspen, spruce, subalpine fir, lodgepole pine. Leave trees should have a DBH greater than 5 inches. Machine piles and hand piles should be placed at least 100 feet from the top of the bank of the ditch. 	To prevent sedimentation and bank damage to the Belvidere Ditch.

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Design Feature	Describe purpose and rationale for the added design feature.
ADD-3 – Access Route and Staging Area Rehabilitation <ul style="list-style-type: none">Access routes and staging areas shall be scarified to a depth of 6 to 12 inches so that at least 65% of the surface is de-compacted and then seeded.Within 300 feet or sight distance of any junction with open roads, obliterate access routes with a combination of ripping, recontouring, seeding, and scattering slash.	To de-compact soils, restore natural drainage, and prevent unauthorized motorized use.

Review and Approval

The US Forest Service Project Manager, Partner Project Manager (if applicable) and LaVA Implementation Coordinator will review the checklist and supporting documentation to confirm the project has been designed consistent with the MFEIS, ROD, and Appendix A. In particular, they will confirm the SOPs and design features, including any additional, project-specific design features, are correctly applied to the project.

The District Ranger will review the checklist and supporting documentation. By signing this checklist, the ranger confirms that this project is within the scope of the analysis in the MFEIS and ROD, including the SOPs and design features in Appendix A.

Reviewed By (US Forest Service Project Manager): Abigail Walther

Signature and Date:

Reviewed By (Partner Project Manager): Anna Thompson

Signature and Date:

Reviewed By (LaVA Implementation Coordinator): Matt Schweich

Signature and Date:

Approved By (District Ranger): Sevi Shperun

Signature and Date:

- Approve proceeding with project. All resource concerns have been mitigated as recommended and the project is within the effects analyzed.
- Approve proceeding with project. Resource concerns could not be mitigated fully but project is still within effects analyzed under decision. Justification for proceeding is included in supplemental information.
- Do not proceed with project. Conditions since initialization of the project have changed substantially and need to be reassessed. Justification is attached.

Project Modifications Developed During Review and Approval

The following changes were made to this project during the review and approval process:

- The text of Infrastructure Design Feature DF-INF-1 was modified for clarity, consistency, and flexibility during implementation while maintaining adequate resource protection.
- The scope of Additional Design Feature ADD-1 was re-aligned to achieve a balance between protection of infrastructure and private property with operability and cost of the project.
- The text of Additional Design Feature ADD-2 was modified for clarity, consistency, and flexibility during implementation while maintaining adequate resource protection.