

Output 2: LaVA Treatment Implementation Checklist

Project: Obsidian Timber Sale		District: Brush Creek-Hayden Ranger District
Partnership Project: No	Primary Partner(s): N/A	
Project Objective(s): #1 mitigate hazardous fuels; #2 provide for recovery of forest products; #3 enhance forest and rangeland resiliency to future insect and disease infestations; #4 protect infrastructure; #6 enhance access for forest visitors and permittees; and #7 provide for human safety		
Accounting Unit: Bow Kettle	Accounting Unit: Choose an item.	
Project Description and Location: Southwest of the White Rocks subdivision; in sections 13, 14, 22, 23, 25, and 26, Township 18 North, Range 80 West, 6th P.M., Carbon County, Wyoming; in Forest Plan Management Area 5.15 (Forest Products, Ecological Maintenance, and Restoration Considering the Historic Range of Variability); in the Forest and Rangeland Resiliency and Forest Products Treatment Opportunity Area (TOA) and mostly but not entirely in the Fuels Treatment and Safety Emphasis TOA.		
Data File Location(s): T:\FS\NFS\MBRTB\Project\LaVA_Implementation\GIS\White Rocks\Data\2_Implementation\ObsidianTS		

Available Treatment Acres from Proposed Action					
Stand Initiation:	84,330	Intermediate:	144,085	Other Treatment(s):	48,573
Project Treatment Acres					
Stand Initiation:	251	Intermediate:		Other Treatment(s):	
Treatment Type	Treatment Acres	Treatment Type	Treatment Acres	Treatment Type	Treatment Acres
Clearcut	251				
Management Area Acreage					
Management Area	Treatment Acres	Management Area	Treatment Acres		
5.15	251				

Wildlife Areas Acreage			
Security Area (Accounting Unit)	Treatment Acres	LAU	Treatment Acres
Bow Kettle	0	Kettle Ponds	77

Specified Road Work (Type)	Miles	Temporary Road Mileage Available	Project Temporary Road Mileage	Balance of Temp Roads
Road Reconstruction	4.49	586.2	0.82	585.38
		All temporary road mileage is estimated. Actual road miles would be tracked and recorded during administration of sales/projects.		

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Resource	Resource Area Pre- Implementation Standard Operating Procedures have been reviewed for this treatment. (Attachment 4)	Project Design Features are appropriate (Attachment 2); the treatment as designed complies with Forest Plan Standards and Guidelines	More rigorous site-specific design features are recommended, or justifications/ clarifications needed. (See attached documentation)	N/A Resource is not present in the treatment area.	Signature / Date*
Botany	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	KMHaynes 8/30/21
Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R Dodez 12/7/2021
Fire and Fuels	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JRDeLay 8/31/2021
Fisheries	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	D. Lujan 10/27/2021
Heritage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G. Kristy 10/28/2021
Hydrology	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	D.Gloss 10/18/21
Lands and Special Uses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Amber Horne 04/27/2022
Noxious Weeds / Invasives	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JWSmith 9/17/2021
Range	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	JWSmith 9/17/2021
Recreation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brian Waugh 10/27/21
Scenery	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Brian Waugh 10/27/21
Soils	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M. Kasten 4/6/2022
Boundary Survey	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tim Douville 4/11/2022
Timber / Silviculture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tim Douville 11/18/2021
Wildlife	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Jesse McCarty 11/12/2021
Public Engagement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	M. Schweich, 11/29/21
LEI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	R. Bagley 4/6/22
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

*Signatures acknowledge completion of the pre-treatment standard operating procedures, participation in the review, and/or implementation of this project.

Summary of How Public Feedback was Incorporated / Addressed:

No public feedback was provided for the White Rocks Focus Area.

Pre-treatment Standard Operating Procedures and Project Design Features

A set of pre-treatment Standard Operating Procedures (SOPs) (Appendix A, Attachment 4) and Project Design Features (Appendix A, Attachment 2) are applied to each treatment prior to its implementation. It is the responsibility of the IDT resource specialists to confirm that the planned treatment a) meets the Forest Plan and FEIS; b) confirm surveys/fieldwork has been completed; and c) if necessary, provide any additional design features and attach those to this checklist.

Project design features were developed to conserve and protect area resources during implementation of the LaVA Project. The majority of the design features were derived and adapted from forest plan standards and guidelines, the Region 2 Watershed Conservation Practices Handbook, national core best management practices for water quality management on National Forest System lands, and best management practices developed by State of Wyoming personnel.

The project design features are expected to provide adequate resource protection under most treatment scenarios associated with LaVA project implementation. However, there may be instances where additional or more stringent design features are needed to address locally unique conditions. These situations are addressed in specific project design features, such as amphibian and fisheries project design feature #7 and soils project design feature #2. The additional, or more stringent, project design features have been developed by Forest Service resource specialists and approved by the responsible official.

The sections below list the SOPs and project design features by resource area. A checked box (☑) indicates that an SOP is applicable to the treatment. Those identified with an asterisk (*) are required for all treatments per law, regulation, policy, or consistency with the LaVA FEIS, Project Design Features, or Decision Triggers.

Air Quality

Pre-Treatment SOPs

- ☑ *Ensure all activities are designed to comply with the Clean Air Act **(PHY-AIR-S.1.¹)**
- ☑ *For smoke generating activities obtain State of Wyoming air quality (smoke) permits **(PHY-AIR-S.1.)**
- ☑ *Identify smoke sensitive areas and design burn plan to limit effects. **(PHY-AIR-G.1.)**
- ☑ *Consult and incorporate the State of Wyoming Department of Environmental Quality-Air Quality Division's Vegetative Material Open Burning Guide into the Burn Plan. **(PHY-AIR-G.1.; WAQSR Chapter 10, Section 2(g)²)**
- ☑ Request and acquire spot weather forecast prior to ignitions.

¹Forestwide standards and guidelines use the following abbreviations, **Category-Sub-Category-Standard or Guideline number**. In this example This is Physical-Air Quality-Standard.1.

²Wyoming Air Quality Standards and Regulations can be found at the Wyoming Administrative Rules website, <https://rules.wyo.gov/Search.aspx?mode=1>, search Department of Environmental Quality, subsection Air Quality, Chapter 10.

During Treatment SOP

- ☒ *Monitor smoke impacts and dispersion, adjust ignitions if necessary. **(PHY-AIR-G.1.; WAQSR Chapter 10, Section 2(g); MON-AIR-1)**

Amphibians, Fish, and Wildlife

Pre-Treatment SOPs

- ☒ Conduct site visits and GIS review of proposed treatment area to determine areas that must be avoided and areas that need field survey. GIS review includes but isn't limited to evaluation of the following data: chytrid fungus data, habitat data, old growth, security areas, seasonal ranges, mining info, watercourse and wetland/fen info, and survey data for the appropriate species.
- ☒ *Complete surveys required by law, regulation or policy. The list below is not exhaustive, nor does it apply to every treatment. The appropriate biologist(s) will determine which surveys need to be conducted. **(BIO-TESS-S.1., BIO-TESS-S.2., BIO-TESS-S.3., BIO-TESS-S.4., BIO-TESS-S.5., BIO-TESS-S.6., DF GOS-1³, DF AF-7, SRLA (Southern Rockies Lynx Amendment, Greater Sage-grouse Land Management Plan Amendment)**
- | | |
|--------------------------|--|
| • Northern goshawk | • Other Rocky Mountain Sensitive Species as needed |
| • Bald eagle | • Species of Local Concern as needed |
| • Boreal toad | • Old growth |
| • Wood frog | • Elk security |
| • Caves/mines (for bats) | • Big game seasonal range |
| • Canada lynx habitat | |
- ☐ Ensure treatments are not planned in Preble's Meadow Jumping Mouse Area of Influence in Fox Wood Accounting Unit along the Laramie River. **(DF PM-1)**
- ☒ If treatments are planned in close proximity to a nest/roost (northern goshawk/bald eagle/other sensitive raptors) or breeding habitat of bighorn sheep, greater sandhill crane, Columbian sharp-tailed or Greater sage-grouse, ensure the appropriate timing restrictions are applied. **(BIO-WILD-S.2., BIO-TES-S.6, BIO-TESS-S.7, DF GOS-1, DF AMF-1)**
- ☒ *Review treatment prescriptions outside of WUI to ensure unique overstory and understory features and diversity will be retained where possible. Unique features may include structurally unique snags or uncommon trees, and woody debris. **(DF MB-1).**
- ☒ Coordinate treatment design and prescription with other resources as needed.
- ☒ *Ensure treatments are designed to maintain or improve wildlife habitat and security areas won't be reduced more than identified in the decision trigger table. **(DT-Iss-5)**
- ☒ Ensure treatments won't exceed the thresholds for treating lynx habitat as described in the wildlife BA and decision trigger table. **(DT-Iss-3, Southern Rockies Lynx Amendment (SRLA) Standards and Guidelines)**

³Design Features are noted by beginning with DF followed by Category and design feature number, in this case this is Heritage Resources Design Feature 1.

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- ☐ Ensure treatments in Greater sage-grouse habitat follow the Greater Sage-grouse Land Management Plan Amendment.
- ☐ If necessary, to protect biotic resources, develop additional Project Design Features and attach to the Treatment Checklist. **(DF AMF-7)**

Amphibians and Fisheries Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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)	No	No streams expected to be impacted
Install stream crossings as perpendicular to flow as practicable. (DF-AF-2)	No	No stream crossings expected
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)	No	No temporary road crossings of perennial streams expected
Avoid direct ignition in riparian and wetland areas; allow fire to back into these areas. (DF-AF-4)	No	No ignitions planned
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 associated 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 habitat and populations. (DF-AF-7)	Modified	Unit 6 boundary has been adjusted to 300 ft buffer along wood frog breeding pond

Wildlife Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
General: Vegetation management and ground-disturbing actions within ¼ mile of suitable goshawk nesting habitat will be surveyed using 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, these forest plan standards will apply (USDA 2003a). (DF-WILD-1)	Modified	Active northern goshawk nest discovered east of Unit 2. Expected hauling route Stanley Park Loop road (FSR 121) is within the ¼ mile core area and will require no disturbance timing restriction from April 1- August 30 annually. Detailed information and map in project file.

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Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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	Unique features were considered/retained during analysis and layout.
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 04. (DF-PM-1)	No	No PMJM habitat within or near the project area.

Columbian Sharp-Tailed Grouse Design Features

Design criteria for shrubland treatments within 2 kilometers (1.24 miles) of Columbian sharp-tailed grouse leks (based on Hoffman and Thomas 2007 and Hoffman et al. 2015).

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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	No CSG habitat within or near the project area.
Treatment prescriptions can treat up to 20 percent of over-mature sagebrush shrublands. Individual treatment areas can vary up to 2 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	No sagebrush treatments.
Treatment 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, treatment 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	No shrubland treatments.
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	No prescribed fire treatments.

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Treated areas should be rested from livestock grazing for 1 to 2 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	Units lack mountain shrubs.

Rare Plants

Pre-Treatment SOPs

- ☒ *Conduct field surveys in the treatment area to determine if any individuals or populations of Rocky Mountain Region sensitive plant species or Medicine Bow NF species of local concern occur. (DF RP-1, BIO-DIV-G.6.)
 - ☒ If a sensitive species or species of local concern is found, the area will be flagged and avoided. A limited treatment buffer around the species and/or habitat is usually applied as well.

Rare Plant Species and Sensitive Ecosystems Design Features

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 follow 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 to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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 treatment activities may be limited, unless otherwise agreed upon by the botanist and district ranger. Specific buffer distances will depend and plant and habitat characteristics and will be determined at time of discovery. (DF-TESS-1)	Modified	Rare plant on steep hill on western edge of Unit 2. Unit boundary was moved back during project layout, so no buffer is needed.
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 would 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	Click or tap here to enter text.

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Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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)	Modified	Move western boundary of Unit 2 away from western precipice, fragile area with many herbaceous flowering plants, protect pollinators that use this area.

Cultural / Heritage Resources

Pre-Treatment SOPs

- ☒ *National Historic Preservation Act compliance will be completed for each treatment area prior to treatment 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, SOC-HER-S.1, SOC-HER-S.2)**
- ☒ *Site-specific implementation measures to protect or enhance heritage resources will be determined at the time of treatment implementation and will be attached to the Implementation Checklist. Generally, protection measures are to flag and avoid cultural sites, other measures may be taken as well but this is the standard. **(DF HR-3, SOC-HER-S.4.)**

During Treatment SOP

- ☒ *In the event that cultural materials or human remains are discovered, all activities in the immediate area will stop, the area secured, and the forest archaeologist and district ranger will be notified immediately. Work will not resume in that area until the forest archaeologist has evaluated the material and has 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, SOC-HER-S.3., SOC-HER-G.5.)**

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Heritage Resources Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
National Historic Preservation Act compliance will be completed for each treatment area prior to treatment 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	NHPA Compliance Complete with SHPO Concurrence (DBI_WY_2021_463) and no Historic Properties will be affected by the undertaking as it is currently planned. If the proposed action is altered in any way, additional review will be necessary.
In the event that cultural materials or human remains are discovered, all activities in the immediate area will stop, the area secured, and the forest archaeologist and district ranger will be notified immediately. Work will not resume in that area until the forest archaeologist has evaluated the material and has 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	Please halt all work if additional cultural materials or human remains are found and the Forest Archaeologist and District Ranger will evaluate the situation.
Site-specific implementation measures to protect or enhance heritage resources will be determined at the time of treatment implementation. (DF-HR-3)	No	No Eligible Historic Properties were identified within the project area; therefore, no avoidance is needed.

Fire / Fuel Treatments

Pre-Treatment SOPs

- ☒ *Incorporate the Forest Plan Management Area Standards and Guidelines into the treatment plans and/or burn prescription and burn plan. **(Forest Plan Chapter 2)**
- ☒ Create treatment plan to achieve desired conditions
- ☒ Ensure fuels are piled/disposed of appropriately. **(DF INF-2)**

Land Survey

Pre-Treatment SOPs

- ☒ *Prior to commencing any ground- or vegetation-disturbing activities, evidence of the PLSS (Public Land Survey System) will be marked for protection. The Forest Land Surveyor shall be consulted to assist with providing data, searching for and evaluating evidence, and locating and protecting monuments of the PLSS from destruction. **(DF INF-1, 35 Stat. 845; 36 Stat. 884; 43 U. S. C. sec. 772).**

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- ☒ Property and boundary lines within 1/4 mile of any land and resource management activity shall be surveyed, located and marked prior to the activity. This includes the location, by survey, of easements necessary for resource management, reference draft version FSH 5509.15, section 30.3. At this time, a finalized version of the policy on boundary management has not yet been approved.

Range and Invasive Species

Pre-Treatment SOPs

- ☒ *For all proposed treatments or activities, assess the risk of noxious weed introduction or spread and implement appropriate mitigation measures. 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, with the exception of 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, BIO-DIST-INVAS-S.1., BIO-DIV-G.3.)**
- ☒ *If heavy equipment use, seeding, or the use of imported materials is proposed, ensure the project design features are included in the contract/work order. **(DF INV-1, DF INV-3, DF INV-4; BIO-DIST-INVAS-S.2., BIO-DIST-INVAS-S.3.)**
- ☒ *If the following are present, attach to the treatment checklist as features to be protected from disturbance during treatment activities **(DF INF-1)**:
- ☒ Range improvements
 - ☒ Range transects and witness trees and posts in the timber contract, service contract, or burn plan as features to be protected from disturbance during treatment activities
- ☒ Coordinate treatments with other resource specialists and with permittees. **(DF RNG-1)**

Rangeland Resources Design Features

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 to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Treatment opportunities must be coordinated with Forest Service rangeland management specialists to provide adequate time to plan changes in grazing management and to limit impacts to allotment management and permittee operations. (DF-RNG-1)	No	This treatment is located in a vacant allotment.

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Invasive Weeds Design Features

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 decision criteria 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 to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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)	Yes	Click or tap here to enter text.
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, with the exception of 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 where duff or slash cover the ground, or where natural revegetation is expected to occur quickly, may not need to be seeded. 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 treatment implementation, identify where the material came from and monitor for noxious weed presence. (DF-INV-4)	Yes	Click or tap here to enter text.

Recreation

Pre-Treatment SOPs

- ☒ The Recreation Specialist will work with the team and the proposed treatments to inventory the recreation attributes that may be affected by treatments. The type of treatment and the location can affect recreation activities and the quality of the recreation experience in the near term and over the long term. Evaluate how the treatment will affect the recreation facilities and settings in the area. Use the design features to ensure that the recreation opportunities are managed appropriately for the period of treatment implementation and for the long-term.

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Design implementation to minimize the impact on recreation users to the extent feasible, including having good communication with partners and the public about the impacts of the activities. **(DT-ISS-8)**

- ☒ Review and incorporate both the management area and geographic area standards and guidelines from the Forest Plan. **(Forest Plan Chapters 2 & 3)**
- ☒ Review the design features. If necessary, to protect local conditions/resources recommend additional design features and attach to the Implementation Checklist.

Ski Areas SOPs

- ☐ *In Management Area 8.22 consult with ski area permit administrator about treatment plans and designs. **(DF REC-11, MA-8.22-REC-G.1.⁴)**

Developed Recreation Sites SOPs

- ☐ Consult with District Ranger to identify priority developed recreation sites for treatment and any other developed sites affected by treatment activities.
- ☐ Consult with District Ranger to determine if sites are managed by Forest Service or under permit with a concessionaire.
- ☐ *Ensure slash and merchantable materials are removed from developed rec sites after treatments have been completed. **(DF RC-1)**
- ☐ *If possible, treat developed campgrounds during the less busy season of Nov 15-April 30. **(DF REC-2)**

Dispersed Recreation Sites/Activities SOPs

- ☒ Consult with District Ranger to identify dispersed recreation sites that need to be protected and/or those that need to have a higher need for treatment. **(DT-ISS-8)**
- ☒ Consider impacts to all types of dispersed recreation including hunting, fishing, special forest product collection, etc. when designing treatments and closures associated with treatments. **(MON-REC-11)**

Trails SOPs

- ☐ *Consult with District Ranger to identify the location of any National Forest System Trail (NFST) to be impacted by treatment activities. **(SOC-SCN-S.2.)**
- ☐ Assess whether designated National Scenic, Historic, or Recreation Trails including existing routes and areas where potential re-routes may be implemented will be affected. Develop mitigations to limit effects to trails and scenic integrity, attach any additional design features to the implementation checklist.
- ☐ *For treatments that may impact the Continental Divide National Scenic Trail, ensure no skidding occurs on the trail and provide alternate routes and/or detours as needed. **(DF REC-4, DF REC-5, DF REC-8)**

⁴ Forest Plan Management Area Standards and Guidelines are abbreviated as follows: “MA” indicates **management area-area number-category-standard/guideline number**. In this example, Management Area-8.22-Recreation-Guideline.1.

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- ☐ *For treatments that may impact the Continental Divide National Scenic Trail, review and incorporate the Continental Divide National Scenic Trail (CDT) Vegetation Treatments- Best Practices⁵. Specific best management practices are listed below **(DF REC-4, DF REC-5, DF REC-8)**:
 - 1. ☐ Create irregular edges for treatment units visible from the CDT to mimic natural vegetation patterns.
 - 2. ☐ Consider the use of low intensity fire as a preferred method of fuels treatment and forest regeneration. Avoid scorching of tree canopy. Fire lines within 300 feet must be restored.
 - 3. ☐ Maintain a minimum of 30% canopy cover with 50% desired.
 - 4. ☐ Minimize impacts from mechanized and hand treatments within 300 feet of the trail in order to promote a naturally appearing setting.
 - 5. ☐ Mark only take trees and put the mark on the unseen side of the tree within 300 feet of the trail.
 - 6. ☐ Limit stump heights within 300 feet of the trail to a maximum of 6" on the uphill side. Cut stumps horizontally. Stumps should be covered with duff, dirt or debris to hide or stain the newly exposed cut trunks.
 - 7. ☐ Retain healthy, large diameter or character trees in a manner that results in stable, wind-firm residuals that are seen within ¼ mile of the CDT.
 - 8. ☐ Trees should be felled in different random patterns in foreground and middle ground viewsheds on slopes greater than 20% if whole trees are left.
 - 9. ☐ Build burn piles 100 feet or more from the trail or behind natural screening.
 - 10. ☐ Do not use the CDT as a temporary road or as a route for skidding. Minimize skid trails across the route and make perpendicular to the trail.
 - 11. ☐ Restore skid trails and roads within the ¼ mile of the trail immediately following conclusion of treatment activity.
 - 12. ☐ Locate landings outside of foreground (up to ¼ mile from the trail) unless no other options are available.
 - 13. ☐ Clean up most slash including unburned piles after implementation for those units within 300 feet of trail.
 - 14. ☐ Notify CDT administrator and trail partners of vegetation projects well in advance of implementation.
 - 15. ☐ Manage trail user access during treatment activity to both protect users from safety concerns and to facilitate use.
- ☒ *Identify managed snow trails, develop, and recommend additional design features if necessary. **(DF REC-10)**
- ☐ *Identify the types of uses of all trails that may be affected by treatments, recommend additional design features if necessary. Ensure trails are returned to pre-treatment conditions. **(DF REC-5, DF REC-9, DF REC-2)**
- ☐ *Ensure that any crossing of trails (temporary roads) is done perpendicular to the trail. **(DF REC-3)**

⁵ https://www.fs.usda.gov/sites/default/files/fs_media/fs_document/CDT_VegetationMgmt_BestPractices_10.18.2019.pdf

Recreation Special Uses SOP

- ☒ Consult with District Ranger to identify the location of any authorized recreation special uses that would be impacted by treatment activities. Identify the types of uses that would be affected if additional design features are needed to reduce impacts, attach to the implementation checklist.

Scenic Byways SOPs

- ☒ *Consult with District Ranger to identify the location of Forest, State or National Scenic Byways and ensure Management Area standards and guidelines are incorporated. **(MA-4.2-FF-G.1., MA-4.2-IPM-G.1., MA-4.2-VEG-S.1., MA-4.2-VEG-S.1., MA-4.2-WILD-G.1.)**
- ☒ Ensure burned slash piles along the scenic byways are rehabilitated. **(DF SCN-2)**

Recreation Design Features

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 to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Remove operational slash and merchantable materials from developed recreation sites that are the direct result of logging the site. (DF-REC-1)	No	No developed rec sites in project area
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 treatments with recreation staff to minimize conflicts with recreation use and damage to infrastructure. (DF-REC-2)	No	No campground in vicinity of project area
Temporary road crossings, skid trail crossings, or both across designated trails would be kept to a minimum. Any crossings would be perpendicular to designated forest trails. (DF-REC-3)	No	No trails in or around project area
Minimize overlaying skid trails/haul roads on nonmotorized system trails. If trails are used as skid trails and haul roads, they will be returned to pre-existing conditions. Trail widths will not be increased. (DF-REC-4)	No	No trails in project area
When timber harvest activities preclude use of a nearby trail, a) notify the public; b) consider identifying timeframes for safe travel on the trail; c) if harvest is 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 project area
Unauthorized user-created routes that fall within treatment boundaries may be decommissioned to discourage continued, illegal motorized use and to offset impacts to area resources. (DF-REC-6)	Yes	Click or tap here to enter text.

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Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
To the maximum extent possible, alternate route(s) or detours will be used during treatment implementation to allow continued use of the Continental Divide National Scenic Trail and to mitigate scenery management impacts during vegetation management operations. (DF-REC-7)	No	Continental Divide Not in Project Area
No skidding is allowed on or across the Continental Divide National Scenic Trail without prior coordination with the local recreation staff. Any skidding that is allowed on or across the trail will be located to limit damage to the trail and will be rehabbed back to pretreatment condition. (DF-REC-8)	No	Continental Divide Not in Project Area
Coordinate with recreation staff on off-highway vehicle trails 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 trails in project area
Coordinate with recreation staff if winter operations are planned on snowmobile trails. (DF-REC-10)	Yes	"O" ungroomed snowmobile route runs along NFSR 111, with snowmobile restrictions north of the Forest boundary.
Design and implementation of vegetative treatments or associated activities (for example, access routes, staging, etc.) within Management Area 8.22 Ski Based Resorts – Existing and Potential must be coordinated with the Forest Service ski area permit administrator to ensure compatibility with current and potential recreational opportunities. (DF-REC-11)	No	No Ski Resorts in Project Area

Soils, Hydrology, and Wet Areas

Pre-Treatment SOPs

- ☒ Consider the potential for cumulative watershed effects **(PHY-WAQ-S.2)**, based on the Treatment Tracking Worksheet or other summary of equivalent clearcut area by project area watersheds, and follow the guidance in the Attachment 1: LaVA Decision-Making Triggers (this table is 11 by 17) when:
 - ☐ Past, present and proposed activity levels in a watershed reach 20% equivalent clearcut area: Cumulative watershed effects in watersheds with known stream health concerns (stream reaches in the project area with a diminished (Water Conservation Practices Handbook), nonfunctional (proper functioning condition), or not meeting designated uses (Wyoming Department of Environmental Quality) stream health category, which could potentially be adversely affected by the proposed treatment),
 - ☒ OR 25% equivalent clearcut area: Cumulative watershed effects in watersheds without known stream health concerns.
- ☒ Based on site visits and GIS, identify lakes, reservoirs, fens, wetlands, wet meadows, springs, intermittent and perennial streams. **(DF HWA-1, DF HWA-1a, DF HWA-2, DF HWA-3, PHY-WAQ-S.4, PHY-WAQ-S.14)**
 - ☒ Recommend appropriate streams for "protected stream course" protection under timber sale contracts.
 - ☒ Recommended WIZ buffers for these water features and document any deviations from project design features and Forest Plan Standards and Guidelines.

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- ☒ Develop site specific design features, where necessary to protect water resources and include in the project implementation checklist.
- ☒ All fens, wetlands, wet meadows, and water influence zones (WIZ) delineated, flagged, and avoided. **(PHY-WAQ-S.15., BIO-DIV-G.7., PHY-WAQ-S.4., PHY-WAQ-S.7., DF HWA-1, DF HWA-1a, DF HWA-2, DF HWA-3.)**
- ☒ All water-related infrastructure (e.g. ditches, reservoirs, pipelines, spring developments, wells, etc.) delineated, flagged, and protected. **(DF INF-1)** 10/18/21 (DJG)– *Field inventory and spatial data review found none w/in proposed harvest units.*
- ☒ All snotel and snow course infrastructure delineated, flagged, and protected. 10/18/21 (DJG)– *Field inventory and spatial data review found none w/in proposed harvest units.*
- ☒ Determine the need for stream crossings, design crossings to allow passage of water and sediment, to withstand expected flood flows, and allow free movement of resident aquatic life. **(DF AF-2, DF AF-3, PHY-WAQ-S.5.)**
- ☒ Review treatment plans, contracts, road packages, etc., for consistency with project design features and Forest Plan Standards and Guidelines.
- ☒ Based on GIS, soil surveys, and/or site visits, identify sensitive soil types, including areas of severe erosion hazard rating, slopes greater than 40 percent, and landslide prone areas. **(DF SOIL-2, PHY-SOIL-G.1., PHY-SOIL-G.2.)**
 - ☒ If sensitive areas are present and can't be avoided, develop site specific design features and include in the project implementation checklist. **(DF SOIL-4)**
- ☒ Create map products of sensitive soils (if needed) for use in the project design stage and contract maps. **(PHY-SOIL-G.2)**
- ☒ For treatments that alter vegetation, ensure project soil design features 1, 5, 6, and 7 (if applicable) are included in contract packages. **(DF SOIL-1, 5, 6, & 7, PHY-WAQ-S.2., PHY-WAQ-S.3., PHY-WAQ-S.6.)**

During Treatment SOPs

- ☒ Review proposed temporary road locations. Evaluated for potential impacts to sensitive soil types, including areas of severe erosion hazard rating, slopes greater than 40 percent, and landslide/mass failure prone areas.
- ☒ Review proposed temporary road locations for number and locations of stream crossings, length within WIZs, and the potential for impacts to the hydrology of groundwater dependent ecosystems. **(PHY-WAQ-S.4. PHY-WAQ-S.5.)**
- ☒ Monitor the implementation and effectiveness of best management practices (BMPs) outlined in the Water Quality Management on NFS Lands (USDA, 2012), Forest Plan Standards and Guidelines and Project Design Features to ensure compliance with State of Wyoming Water Quality Standards, the Wyoming Nonpoint Source Management Plan (WDEQ, 2000) and the Clean Water Act.
- ☒ Spot check treatments to ensure adequate organic ground cover is maintained in each activity area to prevent harmful increased runoff. At least 60% effective ground cover should be maintained to lower the risk of soil erosion. I.e. when walking transects across the unit, no more than 4 out of 10 sample points should be bare ground. Effective ground cover includes surface rock cover, pine needle cover, cover provided by low lying vegetation and mulch. **(DF-SOIL-3)**

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Soils Design Features

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 to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
When logging occurs over snow or frozen ground: <ul style="list-style-type: none"> Harvest 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 implementation measures may be developed to minimize resource concerns, if necessary. 	Yes	Click or tap here to enter text.
Prohibit soil-disturbing activities on slopes greater than 60 percent and on soils susceptible to high erosion and geologic hazard. Site-specific measures will be developed if these features cannot be avoided. (DF-SOIL-2)	No	No treatments are planned on areas with greater than 60 percent slope. Areas susceptible to high erosion and geological hazard were identified in and adjacent to Unit 5b. Unit boundaries were adjusted to avoid these identified hazards.
For mechanical treatment, maintain, at a minimum, 60 percent effective ground cover across treatment units throughout the individual treatment implementation period to provide long-term levels of organic matter and nutrients and erosion control. (DF-SOIL-3)	Yes	Click or tap here to enter text.
Site-specific project design criteria will be developed if treatment activities include operation of heavy equipment on slopes greater than 40 percent. (DF-SOIL-4)	No	No treatments are planned in areas with greater than 40 percent slope.
Designated skid trails would be used, when applicable, during timber harvests. Designated skid trails are recommended if more than 3 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)	Yes	Click or tap here to enter text.
Where feasible, skid trails and landings from past harvests are to be utilized to minimize new soil disturbances. (DF-SOIL-6)	Yes	Click or tap here to enter text.
Equipment operation shall not occur when ground conditions are such that extensive damage will result. If ruts develop that are 6 inches deep and 30 feet long, activities should stop. (DF-SOIL-7)	Yes	Click or tap here to enter text.

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Hydrology and Wet Areas Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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	Field inventory completed and all known wetlands and fens have been excluded from treatment units (10/18/21 DJG)
Wet meadows: No operation of heavy equipment, prescribed fire control line, 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	Field inventory completed and all known wetlands have been excluded from treatment units. Wetlands outside of treatment units, but within the sale area (see “Water Features – Wetland View spatial data”) will be shown on the Sale Area Map under provision “Protected Wetland B6.62” (10/18/21 DJG)
Wetlands, riparian areas, and aquatic ecosystems: When treating within non-excluded wetlands (see numbers 1 and 1a 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 project 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. 	Modified	Field inventory completed and all known wetlands have been excluded from treatment units (see “Water Features – Wetland View spatial data”). A project specific design feature is recommended for temporary road and landings that may be proposed within 100 feet of wetlands, riparian areas and aquatic ecosystems (see Additional Design Features, page 26). (10/18/21 DJG).
Water influence zone: 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 project resource specialists. When treating buffers, including the water influence zone equipment use is permitted; (DF-HWA-3) <ul style="list-style-type: none"> If winter logging occurs, the over-snow logging desired condition will apply; and where feasible, avoid temporary roads, landings, main skid trails, or slash piles in the buffer (water influence zone). If the aforementioned are necessary in the water influence zone, consult with Medicine Bow National Forest resource specialists. Prior to working within water influence zone buffers, resource specialists would conduct an assessment to determine site-specific design criteria for the retention of coarse woody debris. 	Yes	Field inventory completed (see “Water Features – Wetland View and Stream View spatial data”). There are no known perennial or intermittent streams, lakes, reservoirs, riparian areas, or wetlands within treatment units. For all known perennial and intermittent streams, lakes, reservoirs, riparian areas, and wetlands near treatment units, Water Influence Zone buffers, “B6.5 Streamcourse Protection” and “B6.62 Wetland Protection” timber sale clauses have been recommended. (10/18/21 DJG)

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Winching of trees across streams is prohibited. (DF-HWA-4)	Yes	Field inventory completed. No known perennial or intermittent streams, within or near treatment units (see “Water Features –Stream View spatial data). The “B6.5 Streamcourse Protection” timber sale clause is not necessary to prevent winching of trees across the ephemeral draws within units. (10/18/21 DJG)

Timber

Pre-Treatment SOPs

- ☒ Conduct GIS and on-site evaluations to develop treatment unit plans.
 - ☒ GIS data consulted may include:
 - ☒ Forest Activity Tracking System (FACTS), Forest vegetation information (FSVeg/FSVegSpatial)
 - ☒ Forest GIS Data-Treatment Opportunity Areas, Geographic Areas, old growth, security areas, Streams/Wetlands/Lakes, Invasive Species, Threatened/Endangered and Sensitive species info (wildlife/botanical/amphibian), insect and disease data, transportation info, recreation, etc.
 - ☒ On-site evaluations may include:
 - ☒ Stand Exams or walk through exams
 - ☒ Insect and Disease Surveys
 - ☒ Operational Feasibility and Access surveys
- ☒ Work with other resource area specialists to incorporate areas of concern into project design/plans.
- ☒ Use the results of the GIS, on-site evaluations, and other resource survey results to determine the existing conditions of the stands, the feasibility of treatment, and which vegetation treatment option(s) will be utilized (LaVA Appendix A-Attachment 4). Compare the existing conditions to the desired condition for the management area(s).
- ☒ *Consult and incorporate both the management area and geographic area standards and guidelines from the Forest plan into treatment prescription/design. **(Forest Plan Chapters 2 &3).**
 - ☒ Specifically assess silvicultural treatments in old growth, WUI, and leave tree and snag recruit requirements by management area. Include any explanations/justifications for deviations from direction in the project implementation checklist.
- ☒ Develop the following:

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- ☒ *Silvicultural prescription and marking guides, including coarse woody debris, leave trees, snags and snag recruit requirements by management area, forest cover type, and/or designations such as WUI. (**BIO-SILV-S.2. BIO-SILV-S.5., BIO-SILV-S.6., BIO-SILV-G.1., BIO-SILV-G.2., BIO-SILV-G.5., Forest Plan Chapters 2,)**)
- ☒ Determine contract type (stewardship, timber sale, service, etc.)
- ☒ Incorporate project design features and relevant standards and guidelines into contract, by creating crosswalk with design features and contract provisions/clauses
- ☒ Develop the logging plan. The logging plan includes:
 - ☒ Expected landing locations
 - ☒ Yarding/slash requirements
 - ☒ Logging system transportation network
 - ☒ Improvements to be protected
 - ☒ Watercourses and wetlands
- ☒ Use R2 appraisal system to appraise cost of treatment
- ☒ Finalize boundaries (paint if necessary).
 - ☒ Mark units according to prescription/marketing guide.

During Treatment SOP

- ☒ During implementation spot check boundaries and implementation work to ensure contract (timber sale, stewardship, etc.) requirements and the prescription are being met, and the boundary markings are still intact, this is a standard and required part of contract administration.

Old Growth Design Feature

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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 within these stands as long as treatments maintain or promote characteristics of old growth stands, new stands are identified that meet the requirements of old growth and are incorporated into the Medicine Bow National Forest old-growth strategy. Treatment of old growth is prohibited in Forest Plan Management Area 5.15. (DF-OG-1)	No	Identified old growth is excluded from treatment units.

Transportation System / Temporary Roads / Stream Crossings

Pre-Treatment SOPs

- ☒ *Depending on the planned treatment, apply the appropriate design features for transportation systems and haul routes in order to keep effects to existing routes and effects from temporary routes within the bounds disclosed within the FEIS that supports the Record of Decision for this treatment. **(DT-Iss-6)** Specifically, assess the following:
 - ☒ The condition of the existing roads to be used in the treatment/sale.
 - ☒ The need for temporary construction and/or reconstruction (specify location if necessary, otherwise describe the areas/conditions where temporary roads will not be acceptable).
 - ☒ Based on the condition/expected use/need for roads in the timber sale, produce a road package if necessary/required.
 - ☒ Ensure any temporary road construction approaches and/or crosses other travel routes and watercourses perpendicular to travel/flow.
(DF AF-2, DF Rec-3)
- ☒ *If perennial streams require crossing, locate and design the temporary road crossing and include any timing restrictions if necessary, to protect resources. **(DF AF-1, DF AF-3)**
- ☒ WDEQ must be consulted when crossing perennial streams, and a temporary turbidity increase application must be submitted. The assigned resource specialist will need to determine the current contact at WDEQ if this SOP is applicable.
- ☒ *Incorporate the Forest Plan Management Area Standards and Guidelines into the treatment plans **(Forest Plan Chapters 2)**
- ☒ Develop additional design features when needed and attach to the implementation checklist.
- ☒ *Ensure temporary roads (and level 1 roads) remain closed to the public thru signage, gates, or other means. **(MON-8c)**

During Treatment SOPs

- ☒ *Ensure adherence to contract and road design specifications during road reconstruction and maintenance. **(MON-8a)**
- ☒ *Ensure temporary roads (and level 1 roads) remain closed to the public thru signage, gates, or other means. **(MON-8c)**

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Temporary Road Construction, Landings, and Skid Trails Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Erosion Control: Recontour temporary road template to the original contour to permit normal maximum flow of water. (DF-RdEC-1)	Modified	Scarify to a depth of 6-12 inches such that approximately 65% of surface is decompact. Teeth should be lifted periodically to avoid continuous furrows. Recontour to natural ground contours where designated by Forest Service personnel. Scatter slash to obtain a minimum of 35% ground cover. Within 300 feet or sight distance of junctions with open roads, obliterate temporary roads with a combination of ripping recontouring and scattering slash.
Erosion Control: Remove culverts, install water bars, and restore stream channels to near natural dimensions. (DF-RdEC-2)	No	Effective implementation of standard timber sale provisions under BT6.6 Erosion Prevention and Control meet the intent of this Design Feature (10/18/21 DJG).
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)	Modified	Recommend utilizing special timber sale provision C5.34# Obliteration of Temporary Roads, Skid Trails. And Landings: In table, specify that temporary roads will have slash scattered on them to provide “35 percent to 65 percent ground cover” (10/18/21 DJG).
Compaction: Rip, or otherwise roughen, the length of the temporary road prism to eliminate compaction, ensuring an average depth of 6 inches to 12 inches, as needed, to remove compaction. Avoid continuous furrow lines as they act as conduits for water transport and do not eliminate compaction within the entire prism. (DF-RdCOM-1)	Modified	Recommend utilizing special timber sale provision C5.34# Obliteration of Temporary Roads, Skid Trails. And Landings: temporary roads will be ripped the entire length to a depth of 6-12 inches, such that approximately 65% of surface is decompact (10/18/21 DJG).

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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 of these things. The obliteration method(s) selected will cover the temporary road for the sight distance from the origin of the temporary road. 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)	Modified	Recommend utilizing special timber sale provision C5.34# Obliteration of Temporary Roads, Skid Trails. And Landings: temporary roads obliteration will use utilize berms, boulders, slash, mulch, dead trees, or a combination of these things. The obliteration method(s) selected will cover the temporary road for the sight distance from the origin of the temporary road. (10/18/21 DJG).
Timing: Complete rehabilitation of temporary roads will occur within 3 years after the vegetation management treatments have been completed. (DF-RdT-1)	Yes	Click or tap here to enter text.
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)	Yes	Click or tap here to enter text.

Visual Resources

Pre-Treatment SOPs

☒ *Identify treatment area's visual quality objectives based on Forest Plan management area guidance. **(Forest Plan Chapter 2, DF SCN-1, DF SCN-2)**

☐ If proposed treatment won't meet the visual requirements, develop additional Project Design Features and attach to the Treatment Checklist.

Scenic Resources Design Features

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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)	No	Stands with a moderate to high percentage of beetle kill mortality have an existing condition of low to unacceptably low scenic integrity, as the valued landscape character appears moderately to extremely altered. Treatments will move the stands toward an improved (moderate) scenic quality objective at a faster rate than natural succession.

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
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)	No	Treatments are not along scenic byways

Public Engagement

Pre-Treatment SOPs

- ☒ Advertise the opportunity to provide “proposed focus area and individual treatment area(s) feedback” using local media sources (e.g., radio, newspaper, twitter), the [Project Website/StoryMap](#), and emails/mailings to the project mailing list.
- ☒ Host a workshop during the ‘Individual Treatment Phase’ of Appendix A.
- ☒ Accept public feedback for two weeks following the ‘Individual Treatments’ workshop.
- ☐ Consider and adjust treatment proposals, as warranted, in response to public feedback submitted during focus area and individual treatment area(s) phases.
- ☒ Attach to implementation checklist:
 - ☒ Summary of public feedback received during Focus Area phase, relative to treatment.
 - ☒ Summary of feedback received during the Individual Treatment Feedback phase.
 - ☐ Summary how public feedback was incorporated into the treatment plan(s).
- ☒ Host an annual monitoring field trip to review areas, post-treatment.
- ☒ Provide opportunities for public engagement if adjustments to Appendix A are warranted.
- ☒ Provide opportunities for public engagement if monitoring reveals the need for a Supplemental Information Report (FSH 1909.15, Chapter 18).

Public Safety Design Feature

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

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
Forest Service personnel will provide advanced notice to the public if roads are temporarily closed during vegetation management activities. Available 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. The traffic control will comply with the Manual for Uniform Traffic Control Devices. (DF-PS-1)	Yes	Click or tap here to enter text.

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Infrastructure Design Features

Objective: To protect improvements and investments.

Design Feature	Applicable to Treatment? (Yes, No, Modified)	If no, explain. If modified, describe modification and rationale for the modification.
All Forest Service authorized improvements (for example, fences, water improvements, survey monuments) would be protected during management activities. (DF-INF-1)	Yes	Review of spatial data and field inventory of units did not reveal any water improvements w/in or near harvest units (DJG 10/18/21). Known improvements will be shown on the sale area map and be protected.
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)	Yes	Click or tap here to enter text.

Additional Design Features

Objective: To provide additional protection for resources not identified elsewhere in the checklist.

Design Feature	Describe purpose and rationale for the added design feature.
Do not place any temporary roads or landings within 100 feet of perennial or intermittent streams, or wetlands, unless approved on the ground by a hydrologist.	Harvest boundaries may include site-specific, field-identified Water Influence Zone buffers less than 100 feet where it is determined that harvest can be conducted in a way to protect the health of streams and wetlands. While harvest may be prescribed in these areas close to streams and wetlands, the determination of locations for temporary roads or landings occurs during implementation and is recommended to be reviewed on the ground to ensure protection of stream and wetland health (DJG10/18/21). Per DF-HWA-2, PHY_WAQ-S.4

Finalize Treatment Plan – (Timber Sale Contract, Work Order, or Burn Plan)

The LaVA implementation team will finalize treatment plans, ensure all aspects of the SOPs and design features have been completed, and all aspects are approved by the line officer. The implementation team will also ensure contracts, agreements, burn plans, or other implementation instruments are reflective of this framework.

Contract Review (If applicable)

The Contracting Officer, TMA or COR, and NEPA Planner will review contract packages to ensure the applicable SOPs and design features are identified within the work order, contract, or various contract C provisions.

District Ranger Approval/Review

The District Ranger will review the checklist and confirm that the treatment has been designed and planned accordingly. In particular, the ranger will review the SOPs and selected design features and confirm they apply to this treatment. By signing the project implementation checklist, this confirms that this treatment is within the scope of the original analysis in the LaVA Final EIS.

Proposed By (Project Manager): Tim Douville

Signature and Date:

Reviewed By (NEPA Coordinator): Matt Schweich

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.**

Approved By (District Ranger): Jason Armbruster

Signature and Date: