Output 1: LaVA Pre-Treatment Checklist

Project: Sandstone Focus Area		**District:** Brush Creek-Hayden Ranger District
Partnership Project: Yes	**Primary Partner(s):** Mule Deer Foundation, Wyoming State Forestry Division, Little Snake River Conservation District, Wyoming Game and Fish Department	
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; #5 restore wildlife habitat; #6 enhance access for forest visitors and permittees; and #7 provide for human safety		
Accounting Unit: Sandy Battle	**Accounting Unit:** Jack Savery	**Accounting Unit:** Battle Pass
Project Description and Location: The focus area is generally centered on the intersection of Highway 70 and NFSR 801 (Sage Creek Road). From this intersection, it extends about five miles west and three miles east along the highway, about five miles north along NFSR 801, and about two miles south across the West Fork of Battle Creek. See Focus Area and Preliminary Treatments map.		
Data File Location(s): T:\FS\NFS\MBRTB\Project\LaVA_Implementation\GIS\Sandstone\Data\1_PreTreatment		

Project Description (narrative):

Project Summary

The Sandstone focus area was split into three "work areas" based on a planned implementation timeline of three years. See the Focus Area and Preliminary Treatments map. The current plan is to start with the Sandstone North work area, completing field validation and moving into implementation in 2022. This will be followed by Sandstone West in 2023 and Sandstone South in 2024. The goal is to implement one integrated project that incorporates all proposed treatments in each work area; however, some treatment units could be advanced as separate projects. For example, units that complement treatments on adjacent private lands could be prioritized.

Nine preliminary treatment types have been identified in the Sandstone focus area (**Table 1**). Some of the preliminary treatment units have not been reviewed in detail on the ground and are likely to change based on site-specific resource surveys, application of the design features and standard operating procedures identified in Appendix A, public and Cooperator feedback, and other factors.

Initial field reconnaissance and surveys were focused in the Sandstone North and West work areas. The final treatment acres in these work areas could be reduced from those shown in **Table 1** by 25% to 50% during field validation. Additional treatment units are likely to be identified in the Sandstone South work area, where the final treatment acres could increase from those shown in **Table 1** by 25% or more during field validation.

The Bud Decision Notice (signed September 2013) approved a set of aspen regeneration treatments in and adjacent to the Sandstone North work area (see Focus Area and Preliminary Treatments map). Implementation of these treatments could be combined with Sandstone North treatments for efficiency.

Several areas of potential cross-boundary treatments are identified on the Focus Area and Preliminary Treatments map. The Cooperators (for example, Mule Deer Foundation and Wyoming State Forestry Division) and private landowners will develop these treatments, which are outside of the LaVA analysis but complementary to LaVA objectives (for example, aspen enhancement or fuels reduction). Depending on the implementation tool, some LaVA and cross-boundary treatments could be combined (for example, in a Good Neighbor Authority agreement) for efficiency.

Table 1 Preliminary Treatments, Sandstone Focus Area

Preliminary Treatment Type	Work Area			Total (acres)
	North (acres)	West (acres)	South (acres)	
Aspen enhancement*	219	172	0	391
Clearcut	639	577	41	1,257
Overstory removal	346	52	511	909
Pre-commercial thinning	206	180	44	429
Remove conifer from aspen	144	28	105	277
Roadside clearing	4	71	49	123
Shaded fuel break	802	1,943	355	3,100
Thin to fuels spacing	0	0	49	49
Treat down fuels	186	422	0	608
Total	2,545	3,444	1,154	7,144

*Field recon not completed for this treatment type.

Preliminary Treatments

Aspen Enhancement: meets objectives 1, 3, 5, 6 and 7. Activities could include removal of conifers encroaching on aspen stands, aspen cutting, or other treatments designed to enhance health of aspen stands. Activities will be further refined during field validation. Recovery of commercial forest products is not anticipated but will be considered if appropriate. The use of temporary roads is not anticipated.

Clearcut: meets objectives 1, 2, 3, 4, 6, and 7. Stand initiation timber harvest designed to produce commercial forest products and regenerate the timber stand. Most or all overstory and understory trees will be removed. Temporary roads will likely be needed to access some harvest units.

Overstory Removal: meets objectives 1, 2, 3, 4, 6, and 7. Stand initiation timber harvest designed to produce commercial forest products and promote growth of advanced regeneration in the stand. Most or all overstory trees will be removed. Some understory trees will be retained. Temporary roads will likely be needed to access some harvest units.

Pre-commercial Thinning (PCT): meets objectives 1, 3, 4, 6, and 7. Activities could include hand or mechanical thinning designed to improve the health of younger conifer stands. A secondary objective will be reduction of hazardous fuels. Recovery of forest products is not anticipated. Temporary roads will not be used.

Remove Conifer from Aspen: meets objectives 1, 3, 5, 6 and 7. Selective cutting of encroaching conifers designed to enhance health of aspen stands. Recovery of commercial forest products is not anticipated but will be considered if appropriate. The use of temporary roads is not anticipated.

Roadside Clearing: meets objectives 1, 2, 3, 4, 6, and 7. Removal of all trees within about 30 meters (100 feet) of Highway 70, designed to complement previous hazard tree removal by reducing fuels, improving the value of the highway corridor as a fuel break, increasing visibility of wildlife, and decreasing motor vehicle-wildlife collisions. Commercial forest products will be recovered to the extent they are present. The use of temporary roads is not anticipated.

Shaded Fuel Break: meets objectives 1, 3, 4, 6, and 7. Activities could include thinning, mastication, or prescribed burning to reduce fuel loads, reduce the risk of high-intensity fire behavior, and improve the potential for successful fire suppression. Healthy overstory trees will be retained but may be thinned. Most understory trees and shrubs will be removed. Recovery of commercial forest products is not anticipated but will be considered if appropriate. The use of temporary roads is not anticipated.

Thin to Fuels Spacing: meets objectives 1, 3, 4, 6, and 7. Activities could include thinning, mastication, or prescribed burning to reduce fuel loads, reduce the risk of high-intensity fire behavior, and improve the potential for successful fire suppression. Healthy overstory trees will be thinned to meet fuels and potential fire behavior objectives. Recovery of commercial forest products is not anticipated but will be considered if appropriate. The use of temporary roads is not anticipated.

Treat Down Fuels: meets objectives 1, 3, 4, 6, and 7. Activities could include hand and mechanical slash treatments, or prescribed burning designed to reduce dead and down fuels loads. Existing healthy overstory and understory trees will generally be retained. Recovery of commercial forest products is not anticipated. The use of temporary roads is not anticipated.

For all "yes" answers below provide documentation on the next page.

YES	NO	Issue:
☒	☐	The treatment has the potential to affect long-term stream health. (If yes, go to Decision Trigger 1).
☒	☐	The proposed treatment includes treatments meant to maintain or improve wildlife habitat. (If yes, go to Decision Trigger 2).
☒	☐	The proposed treatment has the potential to alter wildlife security areas. (If yes, go to Decision Trigger 3).
☒	☐	The proposed treatment occurs within a Lynx Analysis Unit or Linkage Corridor. (If yes, go to Decision Triggers 4 thru 9).
☒	☐	This treatment will utilize temporary roads to access treatment areas. (If yes, go to Decision Trigger 10 and 11).
☐	☒	The treatment has the potential to affect public access. (If yes, go to Decision Triggers 13 and 14).
☒	☐	The treatment was brought forward or is primarily funded through a partnership source.
☒	☐	Do any "yes" answers above result in a Yellow-Light Trigger?
☐	☒	Do any "yes" answers above result in a Red-Light Trigger?
☒	☐	Is it likely that the proposed treatment will result in a deviation from any Forest Plan Guideline? (If yes, elaborate on the next page)
☐	☒	Does the proposed treatment impact the Continental Divide National Scenic Trail or a Wild and Scenic River? (If yes, describe length of trail/river affected, type of effects, and duration of effects on next page).
☒	☐	Based on the proposed treatment, further Design Features are anticipated. (If yes, elaborate on next page).

Describe any Issues or Triggers from Page 4:

Following is an assessment of the preliminary treatments in relation to the Appendix A triggers. The analysis will be updated prior to completion of Implementation Checklists, once the treatment units are field validated.

Trigger 1

None of the HUC7 watersheds in the focus area have a pre-project Equivalent Clearcut Area (ECA) of greater than 12%, well under the 25% threshold for a yellow-light trigger. If all preliminary treatments were implemented, the ECA in three watersheds would increase to above the 25% threshold for a yellow-light trigger, including Upper Little Sandstone Creek: HUC7 14050003040901 (43%), Dry Sandstone Creek: HUC7 14050003040902 (36%), and Dry Sandstone Tributary: HUC7 14050003040903 (28%).

As described in the project summary, final treatment acres could be reduced from those shown in Table 1 by 25% to 50% during field validation. The current expectation is that the reduction in acres during field validation would limit added ECA to below 25% in the Dry Sandstone Creek and Dry Sandstone Tributary HUC7 watersheds, but not in the Upper Little Sandstone Creek watershed.

A stream health assessment is planned for the Upper Little Sandstone Creek watershed as part of field validation during the 2022 field season. If the stream health assessment were to indicate a moderate or high potential for a long-term change to a lower stream health class (red-light trigger), treatments would be modified as needed to avoid this risk following the options described in Appendix A.

Trigger 2

Two of the preliminary treatments (Aspen Enhancement and Remove Conifer from Aspen) were designed specifically to maintain or improve wildlife habitats, although some benefits to wildlife habitat are expected from the other treatments as well. These two treatments represent 9% of the total treatments in the focus area and will contribute to achievement of the desired condition for this trigger.

Trigger 3

The preliminary treatments will reduce the amount of wildlife security areas in the Jack Savery and Sandy Battle accounting units by 117 acres (2%) and 612 acres (15%), respectively. This reduction will be less than the amount allowed under the yellow-light trigger (20%). While the proposed reduction is within the range analyzed in the MFEIS and is consistent with the ROD, it deviates from a Forest Plan guideline (page 1-40) to "…maintain or increase security areas…".

Triggers 4-9

Small parts of two Lynx Analysis Units (LAUs) overlap the focus area: Battle Creek and Upper Sierra Madre. Both LAUs have low percent unsuitable habitats (14.5 and 12.9% respectively). At present, there are 3,980 acres of suitable lynx habitat available for conversion under the yellow-light trigger threshold (Trigger #4) in the Battle Creek LAU, but only 76 acres of total proposed treatments in suitable habitat. Similarly, there are 6,267 acres of suitable lynx habitat available for conversion in the Upper Sierra Madre LAU, but only 179 acres of total proposed treatments in suitable habitat. The amount of habitat that would be converted is currently unknown and would not be known until treatment units and prescriptions are finalized; however, even if all proposed treatments in suitable lynx habitat were

implemented, the amount of conversion would remain well below the threshold for the yellow-light trigger.

WUI exemptions to Standards VEG S1 or VEG S2 (Trigger #5) will not be used for the proposed treatments.

A relatively small proportion of suitable habitat has been converted to unsuitable in the Battle Creek (2.2%) or Upper Sierra Madre (0.3%) LAUs in the past 10 years (Trigger #6). At present, there are 3,425 acres of suitable lynx habitat available for conversion under the yellow-light trigger threshold in the Battle Creek LAU in the next decade, but only 76 acres of total proposed treatments in suitable habitat. Similarly, there are 6,181 acres of suitable lynx habitat available for conversion in the Upper Sierra Madre LAU in the next decade, but only 179 acres of total proposed treatments in suitable habitat. The amount of habitat that would be converted is currently unknown and would not be known until treatment units and prescriptions are finalized; however, even if all proposed treatments in suitable lynx habitat were implemented, the amount of conversion would remain well below the threshold for the yellow-light trigger.

PCT is not proposed in suitable lynx habitat in the Sandstone focus area. The 1% exemption to Standard VEG S5 (Trigger #7) will not be used for the proposed treatments.

WUI exemptions to Standards VEG S1, VEG S2, VEG S5, and VEG S6 (Trigger #8) will not be used for the proposed treatments.

The use of other exceptions to the SRLA standards (Trigger #9) is unknown but is expected to be a small fraction of the 2,314 acres available under the yellow-light trigger.

Triggers 10 and 11

The use of temporary roads is expected, but currently unknown for timber harvest (clearcut and overstory removal) units, but not for other treatment types. The use and rehabilitation of temporary roads is expected to be well within the limits for yellow-light triggers.

Trigger 13 and 14

Public access will not be affected in the long-term. Minor, short-term restrictions on some routes may be needed to protect public safety during active treatment operations.

Other Supplemental Information

Several LaVA Cooperators, including the Little Snake River Conservation District, Mule Deer Foundation, Wyoming Game and Fish Department, and Wyoming State Forestry Division contributed to the identification of many of the preliminary treatments, as well as complementary cross-boundary treatments.

At this point in the Appendix A process, the need for additional design features is unknown. Additional design features may be needed to address ECA concerns or other issues that arise when the preliminary treatments are field validated. Additional design features, if any, will be added during preparation of the Implementation Checklist(s).

District Ranger Approval/Review

District Ranger signature confirms all appropriate documentation for necessary pre-implementation items is attached and the treatment planning can proceed.

Approved By (District Ranger): Jason Armbruster

Signature and Date: JASON ARMBRUSTER Digitally signed by JASON ARMBRUSTER Date: 2022.02.25 14:29:25 -07'00'