



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Medicine Bow-Routt National Forests and Thunder Basin National Grassland

**Reader's Guide to the
Landscape Vegetation Analysis (LaVA)
Treatment Tracking Workbook Summary Tables**

June 27, 2025

Table of Contents

1.0	Introduction	3
1.1	Treatment Types and Implementation Phases	3
1.2	Interpreting Summary Table Data	4
1.3	What Treatments are Tracked?	4
1.4	Triggers	5
1.5	Data Sources and Disclaimer	6
1.6	Future Updates.....	6
2.0	Reader's Guide to the LaVA Treatment Tracking Summary Tables	6
2.1	Introduction	6
2.2	Implementation by Treatment Type.....	6
2.3	Cumulative Watershed Effects (Trigger 1).....	7
2.4	Wildlife Habitat Improvement (Trigger 2)	7
2.5	Wildlife Security Areas (Trigger 3).....	8
2.6	Canada Lynx (Triggers 4 through 9)	8
2.6.1	2025 LAU Re-mapping.....	9
2.6.2	Total Conversion of Lynx Habitat (Trigger 4)	9
2.6.3	Use of WUI Exemptions for Conversion of Lynx Habitat (Trigger 5)	10
2.6.4	Conversion of Suitable Lynx Habitat by Management in 10 Years (Trigger 6)	10
2.6.5	Pre-commercial Thinning in Lynx Analysis Units (Trigger 7)	11
2.6.6	Total Use of Lynx WUI Exemptions (Trigger 8)	11
2.6.7	Use of Other Lynx Exceptions (Trigger 9)	12
2.7	Construction of Temporary Roads (Trigger 10)	12
2.8	Rehabilitation of Temporary Road (Trigger 11).....	13
3.0	Attachment 1: Current and Completed LaVA and Cumulative Projects.....	13
4.0	Attachment 2: Full Watershed Effects Table	13
5.0	Resources and References.....	13

Acronyms and Abbreviations

BA	Biological Assessment
ECA	Equivalent Clearcut Area
HUC	Hydrologic Unit Code
LAU	Lynx Analysis Unit
LaVA	Landscape Vegetation Analysis
NEPA	National Environmental Policy Act
NFS	National Forest System
PCT	Pre-commercial Thinning
ROD	Record of Decision
SIR	Supplemental Information Report
SRLA	Southern Rockies Lynx Amendment
TOA	Treatment Opportunity Area
TTWB	Treatment Tracking Workbook
WUI	Wildland-urban Interface

1.0 Introduction

This document serves as a guide to the Landscape Vegetation Analysis (LaVA) Treatment Tracking Workbook (TTWB) Summary Tables ("Summary Tables"). The Summary Tables use information from the TTWB to quantitatively summarize the status of LaVA implementation. The purpose of this guide is to explain and clarify information in the Summary Tables.

The TTWB is a series of spreadsheets used to compare activities over the life of the LaVA project with treatment type limits and decision triggers adopted by the LaVA Record of Decision (ROD). The TTWB contains data for planned, current, and completed projects across the LaVA landscape. The TTWB is Output 3 of the LaVA implementation process, which is described in Appendix A: Adaptive Implementation and Monitoring Framework ("Appendix A") and was adopted with the LaVA ROD.

Detailed background information about the LaVA project and implementation process can be found in the [LaVA ROD](#), [Appendix A](#), and on the [LaVA implementation website](#).

1.1 Treatment Types and Implementation Phases

The Summary Tables classify projects by treatment type(s) and implementation phase. Appendix A (pages 63-65) provides detailed descriptions of the treatment type options available. The ROD specified limits to the total area of activities by treatment type:

- Stand Initiation: 86,119 acres
- Intermediate: 149,550 acres
- Other: 52,331 acres
- Total: 288,000 acres

Implementation phases represent the steps of the project life cycle and are described in detail in Appendix A (pages 9-17):

- Phase 1: Focus area development
- Phase 2: Preliminary treatment design
- Phase 3: Refine treatments (field validation, standard operating procedures, implementation of design features, public input)
- Phase 4: Finalize and implement treatments
 - Phase 4 is sometimes split into 4a (finalization) and 4b (implementation) because the finalization process is generally short (six months or less) and ends with completion of the implementation checklist. Implementation, on the other hand, can spread across several years, depending on the project.
- Phase 5: Monitor annually and report every two years
 - Phase 5 is sometimes split into 5a (monitoring) and 5b (reporting) because some monitoring tasks extend beyond a single year and because reporting is a biennial task.

The following definitions are used throughout the Summary Tables to indicate the status of focus areas and individual projects, corresponding to Appendix A phases and equivalent status for cumulative projects:

- “Completed” describes projects in Phase 5.
- “Current” describes projects in Phase 4.
- “Planned” describes projects in Phases 1, 2, and 3.

1.2 Interpreting Summary Table Data

The Summary Tables contain data from projects in all phases of implementation, from conceptual to complete. Data in the Summary Tables should be considered preliminary and subject to change until after projects are implemented, monitored, and reported.

This guide attempts to explain when numbers in the Summary Tables are preliminary versus finalized; however, projects progress regularly through the phases of design, implementation, and monitoring, causing changes in the extent of planned, current, and complete treatments. The Summary Tables provide a snapshot of LaVA implementation on the date they were last updated; however, they should not be used to determine project status at earlier or later dates.

Caution should be used in interpreting data on planned projects, which are in the early phases of the implementation process. Preliminary treatment areas are conceptual and do not represent the final size or location of treatment units once a project reaches the current stage. Preliminary treatment areas are generally larger than the area that will eventually be treated to allow for refinement through field validation and incorporation of public feedback. Field validation and public feedback can reveal locations that could warrant changes to treatment units to protect sensitive resources or ensure compliance with design features. Planned projects are included in the Summary Tables to show how they could eventually fit within the treatment type limits and decision triggers. The Summary Tables do not show planned projects contributing to cumulative totals that would lead to a yellow- or red-light trigger.

1.3 What Treatments are Tracked?

The TTWB tracks all projects authorized by the LaVA ROD and some projects that are authorized by other decisions. Non-LaVA, or “cumulative” projects, are tracked in the TTWB if: 1) the project is located on National Forest System (NFS) land in the LaVA project area; and 2) the US Forest Service authorized the project after the LaVA cumulative effects analysis was completed (generally meaning the cumulative project’s National Environmental Policy Act (NEPA) decision was signed in 2019 or later) but before the LaVA ROD was signed (August 13, 2020). The TTWB classifies and tracks cumulative projects as if they were LaVA treatments (by treatment type and process steps equivalent to LaVA phase); however, cumulative projects are not implemented using the process outlined in LaVA Appendix A.

The TTWB also tracks natural disturbances that cause changes in equivalent clearcut area (ECA), wildlife security habitat, and lynx habitat. For example, the 2020 Mullen Fire caused high-severity disturbance in portions of the southeastern side of the LaVA project area. The Mullen Fire caused several watersheds, LaVA accounting units, and lynx analysis units (LAUs) to exceed decision-

making triggers. These changes were considered in a supplemental information report (SIR), which found that sufficient flexibility exists in the implementation process to manage the landscape based on its post-fire condition. Ongoing tracking of the cumulative effects of LaVA treatments, cumulative projects, and natural disturbances in the TTWB allows the US Forest Service to actively consider and respond to changes on the landscape.

Some LaVA and cumulative projects were in the early phases of implementation when the ROD was signed. These projects were listed in the sample TTWB in Appendix A (pp. 30-44). Subsequently, the 2020 Mullen Fire altered implementation timelines and changed the status of some of the initial projects. Specifically, the Ohay, Big Bird, and Oscar projects, which were authorized under the Rob Roy Vegetation and Fuels Management Project, are currently on hold. In addition, the Sourdough Salvage Timber Sale, previously designed as a LaVA project, became part of the Ryan Park Vegetation and Fuels Project. The decision for the Ryan Park Project was signed in 2018 and its effects were included in the LaVA cumulative effects analysis.

1.4 Triggers

The Summary Tables are organized primarily according to LaVA decision triggers, which correspond to issues identified during the NEPA analysis. Appendix A (pages 48 through 53) contains a detailed description of the 13 triggers, including desired conditions, indicators, options for adaptive action, and regulatory requirements. Each trigger includes yellow- and red-light thresholds. Yellow-light thresholds indicate that a treatment is approaching a red-light threshold but has not yet reached the authorized limit. Yellow-light thresholds can also indicate the potential for future treatments to have substantive negative effects, demonstrating the need for more rigorous design features, a change in management approach, or slowing of the pace of implementation. Red-light thresholds indicate legal or project-specific standards that cannot be exceeded, based on the sideboards of the ROD and supporting documents, indicating a need to consider other treatment options or discontinue proposed treatments in the affected area.

The Summary Tables provide information regarding Triggers 1 through 11, which address issues of watershed condition and trend (Trigger 1), wildlife habitat improvement (Trigger 2), wildlife security areas (Trigger 3), Canada lynx (Triggers 4 through 9), and temporary roads (Triggers 10 and 11). Trigger 12 was related to roadless areas and was removed when roadless areas were removed from LaVA treatment opportunity areas (TOAs) and ROD. Triggers 13 and 14, regarding visitor and permittee satisfaction, are measured based on public feedback rather than quantitative characteristics of individual projects. Results of public feedback are not included in the Summary Tables. These issues and consideration of their triggers are addressed during treatment design and public feedback (Phase 2); treatment refinement, field validation, and incorporation of public input (Phase 3); and monitoring and reporting (Phase 5).

Different triggers measure different types of data. For example, natural disturbances are applicable only to Triggers 1, 3, and 4. These triggers provide limits for cumulative effects to watershed function, wildlife security, and lynx habitat, each of which can also be affected by natural disturbances, such as wildfire. The remaining triggers (2 and 5 through 11) are not affected by natural disturbances because they measure characteristics of management actions.

1.5 Data Sources and Disclaimer

Project information was gathered from LaVA StoryMap base data, LaVA implementation and pre-treatment checklists, the Mullen Fire SIR, geospatial data stored in the Forest Service “T-drive”, and other sources that represent the best available information at the time the TTWB was last updated. All data are subject to correction, update, or modification based on new or revised information.

1.6 Future Updates

The US Forest Service will update the TTWB and Summary Tables annually or more often as feasible. Updates to the Summary Tables and this guide will be posted on the LaVA implementation website. The US Forest Service will continue to refine the treatment tracking process and may change the format of the TTWB and Summary Table to better display progress during the implementation process and as new information becomes available.

2.0 Reader's Guide to the LaVA Treatment Tracking Summary Tables

The following sections are organized in the order of the Summary Tables. Some tables are grouped for ease of explanation, including the temporary roads tables and the lynx exemptions and exceptions tables. Each section describes the purpose and content of the table and lists input parameters.

2.1 Introduction

Page 1 of the Summary Tables contains background information, a data disclaimer, definitions for certain terms, and a list of tables.

Please note that if project data are not present in a trigger sheet, the trigger is not relevant to that project (for example, if a project area is not in a LAU, it is not considered when accounting for the lynx triggers).

2.2 Implementation by Treatment Type

Page 2 of the Summary Tables examines the treatment type limits in the LaVA ROD. The table breaks down implementation by planned, current, and completed treatments, and shows the number of acres available for future LaVA treatments.

- *Inputs* – LaVA projects, cumulative projects
- *Metric* – Acres of treatment
- *Geographic scale of analysis* – LaVA project area

2.3 Cumulative Watershed Effects (Trigger 1)

Trigger 1 addresses cumulative watershed effects. Page 3 of the Summary Tables shows the number of watersheds meeting Trigger 1 yellow- and red-light thresholds as well as an estimate of the total area available for treatment below the yellow-light threshold.

Equivalent clearcut area (ECA) is quantified using a model that provides an index of vegetation disturbance and post-disturbance recovery. ECA is a tool to account for activities in a watershed that have the potential to affect stream health, not a direct measure of stream health. Trigger 1 uses ECA as an indicator to determine when stream health field assessments are warranted.

- *Red-light trigger* – Stream health field assessment identifies a moderate or high potential for a long-term change to a lower stream health class.
- *Yellow-light trigger* – LaVA and cumulative projects cause a watershed to reach either: 1) 20% ECA in watersheds with known stream health concerns; or 2) 25% ECA in watersheds without known stream health concerns.
- *Inputs* – LaVA projects, cumulative projects, natural disturbance
- *Metric* – Modeled ECA (past projects and natural disturbance) and estimated ECA (current and recent treatments, natural disturbance)
- *Geographic scale of analysis* – Hydrologic Unit Code (HUC) 7 watersheds.

2.4 Wildlife Habitat Improvement (Trigger 2)

Trigger 2 addresses the proportion of projects that are designed to maintain or improve wildlife habitat. The ROD required that at least three percent of treatments be specifically designed to maintain or improve wildlife habitat. Appendix A (page 49) lists types of treatments that qualify as wildlife habitat improvement.

Page 3 of the Summary Tables shows that the US Forest Service is currently meeting the yellow- and red-light thresholds for Trigger 2, with about 30 percent of treatments in the last three years designed specifically to improve wildlife habitat. Among planned treatments (which are subject to substantial change), about 10 percent are targeted to wildlife habitat improvement.

- *Red-light trigger* – Within each 5-year period, 3% of total treated acres are specifically designed to maintain or improve wildlife habitat. No more than half of wildlife habitat improvement acres can come from regeneration treatments.
- *Yellow-light trigger* – Within each 3-year period, 3% of total treated acres are specifically designed to maintain or improve wildlife habitat. No more than half of wildlife habitat improvement acres can come from regeneration treatments.
- *Inputs* – LaVA projects, cumulative projects, treatment types
- *Metric* – Treatments designed to maintain or improve wildlife habitat
- *Geographic scale of analysis* – LaVA project area

2.5 Wildlife Security Areas (Trigger 3)

Trigger 3 addresses cumulative effects to wildlife security areas. The Medicine Bow National Forest Revised Land and Resource Management Plan (Forest Plan) (page 1-40) defines wildlife security areas as blocks of hiding cover greater than 250 acres more than ½ mile from any roads or trails open to motorized use. Hiding cover is vegetation capable of hiding 90% of a standing adult elk from view of a human at a distance of 200 feet or less (Forest Plan Appendix G, page G-17). The TTWB tracks any LaVA project, cumulative project, or natural disturbance that reduces the amount of security area per LaVA accounting unit. The wildlife security areas Summary Table (page 4) also shows planned treatments, which do not count against the trigger because they reflect preliminary treatment areas and are likely to change before implementation.

- *Red-light trigger* – 30% or more of the security areas in TOAs in an accounting unit are removed with treatment implementation.
- *Yellow-light trigger* – 20% or more of the security areas in TOAs in an accounting unit are removed with treatment implementation.
- *Inputs* – LaVA projects, cumulative projects, natural disturbances
- *Metric* – Reduction of security areas
- *Geographic scale of analysis* – TOAs in LaVA accounting units

2.6 Canada Lynx (Triggers 4 through 9)

Triggers 4 through 9 are based on four vegetation management standards in the Southern Rockies Lynx Amendment (SRLA). The triggers are related to the SRLA standards as follows:

- Trigger 4 corresponds to VEG S1, which constrains the use of vegetation management activities that convert Canada lynx habitat from a suitable to an unsuitable condition.
- Trigger 6 corresponds to VEG S2, which constrains the use of vegetation management activities that convert Canada lynx habitat from a suitable to an unsuitable condition.
- Trigger 7 corresponds to VEG S5, which prohibits the use of pre-commercial thinning (PCT) in lynx habitat except in certain situations.
- Trigger 9 corresponds to exceptions to VEG S5 and VEG S6, which prohibit vegetation management activities that reduce winter snowshoe hare habitat in multi-story mature or late successional conifer forests except in certain situations.
- Triggers 5 and 8 correspond to the wildland urban interface (WUI) exemption for all four standards. Vegetation management activities can be exempt from each of the four standards if they are in the WUI. Exempt WUI treatments may only be used when they cumulatively add up to less than three percent of the total area of mapped lynx habitat across the forest unit (in our case the entire Medicine Bow-Routt National Forests).

The LaVA BA analyzed the project's effects on Canada lynx and supported US Forest Service consultation with the US Fish and Wildlife Service. The consultation ensured compliance with the SRLA including each of the four vegetation management standards addressed by Triggers 4-9. The extent of treatments described in the BA and during consultation constitute the maximum

authorized by the ROD and are reflected in Triggers 4-9. LaVA BA and project limits are generally lower than the limits set by the SRLA standards to account for other (non-LaVA) projects that may be planned and implemented in the future. For all lynx triggers, treatment effects are not calculated against yellow- and red-light thresholds in the TTWB until they have reached Phase 4 or treatment units have been finalized (for cumulative projects).

2.6.1 2025 LAU Re-mapping

SRLA contains adaptive management features that direct the US Forest Service to work with the US Fish and Wildlife Service to improve habitat maps as new science becomes available. Recent analysis indicates lynx habitat is more narrowly distributed than previously thought. In 2025, new LAU maps were adopted based on new science and collaborative mapping between the US Forest Service and US Fish and Wildlife Service. In the LaVA landscape, the number of LAUs was substantially reduced. Consistent with the LaVA ROD, Triggers 4-9 will be applied in the newly mapped LAUs.

Triggers 5, 7, 8, and 9 consider exemptions and exceptions to the SRLA standards. The amounts of these exemptions and exceptions were documented in the LaVA BA based on the previous extent of LAUs and lynx habitat. Future analysis will determine if changes to the amount of allowed exemptions and exceptions are needed and if consultation between the US Forest Service and US Fish and Wildlife Service should be re-initiated. Until this new analysis is complete, the US Forest Service will not use any exemptions or exceptions for projects not already in the implementation phase when the revised LAUs were adopted. For this reason, we do not include updates to Triggers 5, 7, 8, and 9 in the 2025 version of the TTWB and Summary Tables.

2.6.2 Total Conversion of Lynx Habitat (Trigger 4)

Trigger 4 (Summary Tables, page 5) addresses limits for conversion of suitable lynx habitat to an unsuitable condition on an individual LAU basis. An unsuitable condition for lynx is a stand initiation structural stage that does not yet provide winter snowshoe hare habitat, as defined by the SRLA (page 1-3). Trigger 4 limits LaVA treatments from converting more lynx habitat than the amount stated in the BA (pages 42-43). Limits vary by LAU. All conversion on NFS lands at any time counts against the Trigger 4 limits, including treatments in the WUI that could be otherwise exempt from SRLA standards. The TTWB tracks all LaVA treatments, cumulative projects, and natural disturbances that convert suitable lynx habitat to an unsuitable condition.

Trigger 4 is related to standard VEG S1 in the SRLA because it tracks conversion of habitat from suitable to unsuitable condition across each LAU. VEG S1 prohibits vegetation management treatments that regenerate lynx habitat if more than 30% of the habitat in an LAU is in an unsuitable condition. The righthand column of the Trigger 4 summary table shows the proportion of each LAU in unsuitable condition, based on habitat mapping and previous project tracking. Trigger 4 thresholds are less than 30% of each LAU unless the BA allows for the use of the WUI treatment exemption (see Triggers 5 and 8).

- *Red-light trigger* – LaVA implementation and natural events reach 100% of the stated conversion of suitable habitat to an unsuitable condition addressed in the BA for a LAU.
- *Yellow-light trigger* – LaVA implementation and natural events reach 80% of the stated conversion of suitable habitat to an unsuitable condition addressed in the BA for a LAU.

- *Inputs* – LaVA treatments, cumulative projects, natural disturbances
- *Metric* – Acres of lynx habitat converted to an unsuitable condition
- *Geographic scale of analysis* – LAU

2.6.3 Use of WUI Exemptions for Conversion of Lynx Habitat (Trigger 5)

Trigger 5 (Summary Tables, page 5) address limits for use of WUI exemptions to standards VEG S1 and VEG S2 in specific, individual LAUs.

Note: for the 2025 update to the TTWB and Summary Tables, this Trigger has not been updated. See Section 2.6.1 for additional explanation.

- *Red-light trigger* – LaVA implementation reaches 100% of the stated conversion of suitable habitat to an unsuitable condition for WUI exemptions to SRLA standards VEG S1 and VEG S2 addressed in the BA.
- *Yellow-light trigger* – LaVA implementation reaches 80% of the stated conversion of suitable habitat to an unsuitable condition for WUI exemptions to SRLA standards VEG S1 and VEG S2 addressed in the BA.
- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Acres of lynx habitat converted to an unsuitable condition in the WUI using the WUI exemption to standards VEG S1 or VEG S2
- *Geographic scale of analysis* – LAU

2.6.4 Conversion of Suitable Lynx Habitat by Management in 10 Years (Trigger 6)

Trigger 6 (Summary Tables, page 6) tracks conversion of lynx habitat on NFS land to an unsuitable condition by management in the last 10 years on an individual LAU basis. Trigger 6 limits conversion of habitat by LaVA treatments and cumulative projects per 10 years to the total treatment limit (Trigger 4) minus the amount of treatment that occurred in the prior 10 years. The TTWB initially used the prior 10 years of treatment as calculated in the LaVA BA (page 23). As implementation proceeds, the 10-year period will be calculated as a rolling sum (that is, acres of treatment known to have occurred more than 10 years before the current year will not count against Trigger 6).

Trigger 6 is based on standard VEG S2 in the SRLA, which limits vegetation management treatments that convert suitable lynx habitat to 15% of the lynx habitat on National Forest System land in an LAU per 10-year period. The proportion of habitat regenerated by management in each LAU in the past 10 years is shown in the righthand column of the summary table. For most LAUs, the treatment limit in the BA is less than 15% of the habitat in those LAUs. However, the BA allows an amount of treatment that could exceed 15% of the lynx habitat on NFS land in 10 years in several LAUs through use of the WUI exemption to VEG S2.

- *Red-light trigger* – Vegetation management reaches 100% of the stated conversion of suitable habitat to an unsuitable condition in 10 years addressed in the BA for a LAU.
- *Yellow-light trigger* – Vegetation management reaches 80% of the stated conversion of suitable habitat to an unsuitable condition in 10 years addressed in the BA for a LAU.

- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Acres of lynx habitat converted to an unsuitable condition by management in the past 10 years
- *Geographic scale of analysis* – LAU

2.6.5 Pre-commercial Thinning in Lynx Analysis Units (Trigger 7)

Trigger 7 (Summary Tables page 6) tracks the use of PCT treatments as an exception to VEG S5 against specific limits set in the BA (pages 56-57) for each LAU. In most LAUs, the limit applies to PCT in any lynx habitat, whether suitable or unsuitable, across the LAU. However, in LAUs that exceed 30% lynx habitat in unsuitable condition (VEG S1), currently including the Red Elephant Mountain LAU, PCT may occur only in stands that do not yet provide winter snowshoe hare habitat. The righthand column of the summary table shows the cumulative use of PCT (including pre-LaVA treatments) as a proportion of the total amount of lynx habitat in each LAU, to show how LaVA implementation relates to the SRLA's overall 1% limit for each LAU.

Note: for the 2025 update to the TTWB and Summary Tables, this Trigger has not been updated. See Section 2.6.1 for additional explanation.

- *Red-light trigger* – PCT implementation reaches 100% of the stated PCT addressed in the BA for a LAU.
- *Yellow-light trigger* – PCT implementation reaches 80% of the stated PCT addressed in the BA for a LAU.
- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Acres of PCT in lynx habitat from the stand initiation structural stage until stands no longer provide winter snowshoe hare habitat
- *Geographic scale of analysis* – LAU

2.6.6 Total Use of Lynx WUI Exemptions (Trigger 8)

Trigger 8 (Summary Tables, page 6) tracks total use of WUI exemptions to standards VEG S1, VEG S2, VEG S5, and VEG S6, which can be used in any of the LAUs in the LaVA project area. The righthand column of the summary table for Trigger 8 also shows the cumulative use of WUI exemptions (including pre-LaVA treatments) as a proportion of the total amount of lynx habitat on the Medicine Bow-Routt National Forests, to show how LaVA implementation relates to the SRLA's overall 3% limit.

Note: for the 2025 update to the TTWB and Summary Tables, this Trigger has not been updated. See Section 2.6.1 for additional explanation.

- *Red-light trigger* – Use of WUI exemptions reaches 100% (11,573 acres) of the limits in the BA.
- *Yellow-light trigger* – Use of WUI exemptions reaches 80% (9,258 acres) of the limits in the BA.

- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Acres of lynx habitat converted to an unsuitable condition using WUI exemptions
- *Geographic scale of analysis* – LaVA project area

2.6.7 Use of Other Lynx Exceptions (Trigger 9)

Trigger 9 (Summary Tables, page 6) tracks the use of various incidental damage exceptions to VEG S5 and VEG S6. The righthand column of the summary table for Trigger 9 shows the cumulative use of these incidental damage exceptions (including pre-LaVA treatments) as a proportion of the total amount of lynx habitat on the Medicine Bow-Routt National Forests, to show how LaVA implementation relates to the SRLA's overall 0.5% limit.

Note: for the 2025 update to the TTWB and Summary Tables, this Trigger has not been updated. See Section 2.6.1 for additional explanation.

- *Red-light trigger* – Use of incidental damage exceptions reaches 100% (2,893 acres) of the limits in the BA.
- *Yellow-light trigger* – Use of incidental damage exceptions reaches 80% (2,314 acres) of the limits in the BA.
- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Acres of treatment using exceptions 1-4 of standard VEG S5 or exceptions 1-3 of standard VEG S6
- *Geographic scale of analysis* – LaVA project area

2.7 Construction of Temporary Roads (Trigger 10)

Trigger 10 (Summary Tables, page 7) addresses the 600-mile overall limit in the LaVA ROD for construction of temporary roads. The summary table for Trigger 10 also includes a column to track the total length of temporary roads currently open, which the LaVA ROD (page 12) limits to 75 miles. Temporary roads are not planned until LaVA Phase 4 or the treatment unit finalization stage for cumulative projects. Temporary road data do not exist for treatments in LaVA Phases 1-3 or the equivalent for cumulative projects.

- *Red-light trigger* – 600 of the 600 miles of temporary roads have been constructed.
- *Yellow-light trigger* – 400 of the 600 miles of temporary roads have been constructed.
- *Other limits* – No more than 75 of the 600 miles of temporary roads may be open at any given time.
- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Miles of temporary roads planned, constructed, and open
- *Geographic scale of analysis* – LaVA project area

2.8 Rehabilitation of Temporary Road (Trigger 11)

Trigger 11 (Summary Tables, page 7) addresses the timely rehabilitation of temporary roads. This trigger will not be addressed until projects have been in Phase 5 (monitoring and reporting) for three years. To date, no projects that used temporary roads have reached this phase.

- *Red-light trigger* – More than 10% of temporary roads are not effectively rehabilitated within three years of treatment completion.
- *Yellow-light trigger* – More than 5% of temporary roads constructed are not effectively rehabilitated within three years of treatment completion.
- *Inputs* – LaVA treatments, cumulative projects
- *Metric* – Miles of temporary roads constructed and rehabilitated
- *Geographic scale of analysis* – LaVA project area

3.0 Attachment 1: Current and Completed LaVA and Cumulative Projects

Attachment 1 (Summary Tables, page 8-9) lists all current and completed LaVA and cumulative projects. The table shows how the treatments contribute to the treatment type limits and LaVA Triggers 2, 3, 4, 6, and 10.

4.0 Attachment 2: Full Watershed Effects Table

Attachment 2 (Summary Tables, pages 10-13) lists various parameters including ECA for each of the 240 watersheds in the project area. The TTWB uses ECA model output as a baseline for existing disturbance in a watershed. Baseline ECA reflects the effects of past natural disturbances (such as fire) and management activities. The ECA model is updated periodically for the entire project area to incorporate the effects of newly completed projects, natural disturbances, and recovery. The most recent update to the ECA baseline model was completed in October 2023.

Baseline ECA does not account for current or planned projects, or for treatments or disturbances that were more recent than the last update to the model. Current projects (and completed projects that are not yet reflected in the baseline ECA) are added to the baseline ECA to estimate additional disturbance against the yellow-light threshold. Planned treatments do not count against the yellow-light threshold because they reflect preliminary treatment areas and are likely to change substantially before they are implemented.

5.0 Resources and References

LaVA Documents:

- LaVA implementation webpage: <https://www.fs.usda.gov/r02/mbrtb/natural-resources/forest-health/lava-project-implementation>
- LaVA NEPA website: <https://www.fs.usda.gov/r02/mbrtb/projects/archive/51255>

- 2020 LaVA Record of Decision: <https://usfs-public.app.box.com/v/PinyonPublic/file/933955508965>
- 2020 LaVA Appendix A: <https://usfs-public.app.box.com/v/PinyonPublic/file/933957839281>
- 2020 LaVA Modified Final Environmental Impact Statement: <https://usfs-public.app.box.com/s/47f8h3xpbnu2dvh2ycej9qs4gfft8b19>
- 2021 LaVA Supplemental Information Report for the 2020 Mullen Fire: <https://usfs-public.app.box.com/v/PinyonPublic/file/933955041462>
- 2020 LaVA Wildlife Biological Assessment Report: <https://usfs-public.app.box.com/v/PinyonPublic/file/933956600263>

The 2003 Medicine Bow National Forest Plan:

- All documents associated with the Medicine Bow National Forest Revised Land and Resource Management Plan are available at this webpage:
<https://www.fs.usda.gov/r02/mbrtb/planning/forest-plan/medicine-bow-national-forest-revised-land-and-resource-management>

Southern Rockies Lynx Amendment:

- 2008 Southern Rockies Lynx Management Direction Record of Decision: <https://usfs-public.app.box.com/v/PinyonPublic/file/974240707458>