



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Helena-Lewis and Clark National Forest / Judith-Musselshell Ranger District

March 2026

Little Snowies Piles Prescribed Fire

Declared Wildfire Review



Forest Supervisor Delegation

Regional Forester Delegation

Table of Contents

Declared Wildfire Review 1

 Executive Summary 1

 Setting 1

 Social and Political setting – National and Regional..... 1

 Project Area Location & Description 2

 Environmental Conditions 4

 Narrative 4

 Conclusion 9

 Lessons Learned..... 10

 Lessons Learned by The Participants 10

 Lessons Learned by The Review Team 11

 Appendix I: Analysis and Assessments 11

 #1: Analysis of seasonal severity, weather events, and on-site conditions..... 11

 #2: Analysis of the prescribed fire plan for consistency with agency policy. 19

 #3: An analysis of prescribed fire implementation for consistency with the prescription, actions, and procedures in the prescribed fire plan..... 21

 #4: The approving agency administrator’s qualifications, experience, and involvement..... 23

 #5: The qualifications and experience of key personnel involved..... 23

 Appendix II: Contributing Factors..... 24

 Appendix III: Findings and Recommendations 25

 Findings (optional)..... 25

 Appendix IV: Chronology 25

 Appendix V: Delegation of Authority and Conduct of Declared Wildfire Review 26

 Appendix VI: Glossary of Terms..... 30

 Appendix VII: Review Team..... 30

Declared Wildfire Review

Executive Summary

The Judith-Musselshell Ranger District of the Helena-Lewis and Clark National Forest initiated hand pile burning operations for the Little Snowies Piles Prescribed Fire (Low Complexity) on December 3, 2025, and continued operations on December 4. This prescribed burn comprised five separate hand pile units within the same area, all covered by the District's Programmatic Pile Burning Prescribed Fire Plan. Ignition conditions were favorable, with snow on the ground and additional snow in the forecast, fully meeting the prescriptions outlined in the burn plan. The operation was successfully ignited and subsequently transitioned to patrol status and responsibility for the fire transitioned from the RXB3 to the Duty Officer.

Weather conditions shifted in mid-December, presenting warmer, drier, and windier conditions that resulted in significant snowmelt and fuel drying. The District adhered to the burn plan by intensifying patrol efforts on the burn unit throughout December and into early January. On December 22, a hot edge of a pile spread outside the pile boundary and was extinguished, and on December 30, a persistent heat source within one of the piles was mopped up. Subsequent patrols, even after a period of very warm and dry weather and a significant wind event, did not encounter any signs of heat.

On the afternoon of January 11, a neighboring landowner reported a fire in the area. Bureau of Land Management (Protection Unit) resources, local Volunteer Fire Departments (VFDs), and the neighboring landowner responded to suppress the incident, which was subsequently named the South Fork Fire. The fire was contained at approximately 5.1 acres, with 3.93 acres determined to be within the prescribed burn unit and 1.16 acres having spread onto private property. Upon learning of the fire and its origin from the Little Snowies RX pile, the Duty Officer and Agency Administrator for the Judith-Musselshell Ranger District declared the incident a wildfire. Temperatures at the nearby Remote Automatic Weather Station (RAWS) rose to 50 degrees that day, with relative humidity dropping to 14%. These conditions were abnormally warm and dry for that time of year.

The fire's origin was determined to be a hand pile within one of the units. It spread through Ponderosa pine needle litter and remained a surface fire. Damage was limited to two fence braces, privately owned, on the private property/Forest Service boundary, which were subsequently replaced by the Judith-Musselshell Ranger District.

This review identified lessons learned directly related to the declared wildfire, as well as additional insights pertaining to broader operational practices that emerged during the review process.

Setting

Social and Political setting – National and Regional

The Helena-Lewis and Clark National Forest encompass over 2.8 million acres of central and north central Montana. The area includes 6 different Ranger Districts: Lincoln, Helena, Townsend, Judith-Musselshell, Rocky Mountain, and Belt Creek-White Sulphur Springs. The large area includes 17 different counties within Montana, many of which are along the continental divide (Broadwater, Cascade, Chouteau, Fergus, Glacier, Golden Valley, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Park, Pondera, Powell, Sweet Grass, Teton, and Wheatland). Elevation distribution ranges from less than 3,000ft. all the way up to over 9,000ft. and average precipitation ranges vastly across the area, from 11 inches to 20+ inches of precipitation annually. Regional trends consist of generally cold, wet winters and a warm semi-arid climate during the summer.

Declared Wildfire Review

On the Helena-Lewis and Clark, average acres treated annually over the last 3 years are 13,000 acres: 5,000 acres of broadcast burning, 1,000 acres of pile burning, 6,500 acres mechanical fuels treatments (including timber sales), and 500 acres of wildfires.

Project Area Location & Description

Project Area Location:

The Little Snowies RX is located on the Judith-Musselshell Ranger District of the Helena-Lewis and Clark National Forest approximately 25 miles southeast of Lewistown, MT. Travel times from either of the District's Ranger Stations (Stanford and Harlowton) to the RX location are 2-3 hours each way. Unit 7-10H, where the escape occurred, is one of several units of hand piles within the Little Snowies RX area. Unit 7-10H is located on Forest Service managed lands and is adjacent to private lands.

Prescribed Fire Objectives:

Direct excerpt from the Judith-Musselshell RD Programmatic Pile Burning – All Project Areas and Units (District Wide) – Prescribed Fire Plan:

- Prescribed fire objectives are to consume 90% of all woody debris that make up the piles.
- Burn when there is a minimum impact on air quality. *Click to add:*

Vegetation, Fuels:

Direct excerpt from the Judith-Musselshell RD Programmatic Pile Burning – All Project Areas and Units (District Wide) – Prescribed Fire Plan:

- This plan contains pile burning for associated timber sale projects, hazardous fuels reduction projects, developed & dispersed recreation sites.

Prescribed Fire Prescription:

Direct excerpt from the Judith-Musselshell RD Programmatic Pile Burning – All Project Areas and Units (District Wide) – Prescribed Fire Plan:

Hand Piles (all elevations): Ideal prescription parameters when burning hand piles, would be a continuous snow cover on adjacent fuels, or recent significant precipitation, such that adjacent fuels are not receptive to fire. Calculating Fine Dead Fuel Moisture is an effective way to determine how receptive adjacent fuels may be, along with empirical evidence, and the results of a test fire.

However, in certain project areas, where the risk of fire spread outside of treated area is low to none, or where terrain and topography is such that snow cover does not last for any significant period of time, using fine dead fuel moisture (FDFM) or snow cover as a deciding parameter can limit opportunities for implementation. Other locations within treated areas exist which become absent of snow cover and available to burn, but are surrounded and isolated by large amounts of snow cover, i.e., south facing aspects or windblown slopes. In these areas, the decision to proceed

Declared Wildfire Review

with ignition shall follow a discussion with the Burn Boss, Fire Management Officer, and the Agency Administrator.

The decision to proceed with ignition will be based on level of confidence that fire will not spread outside the treated area, current and expected weather, receptivity of adjacent fuels, resource objectives.

Prescribed Fire Outcomes:

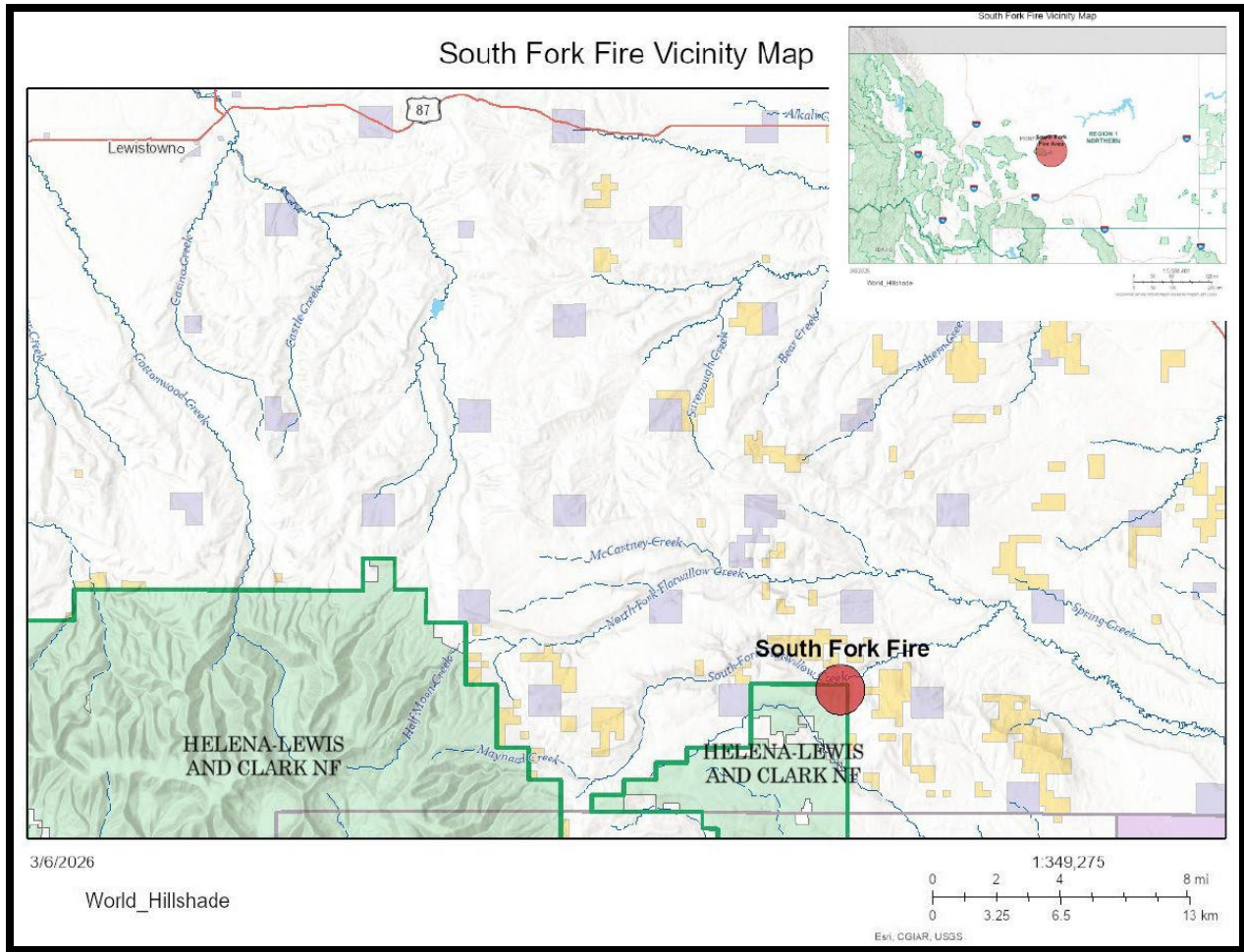
The prescribed fire yielded the anticipated results, with all established objectives successfully achieved during its implementation. Fuel consumption within the ignited piles was observed to be up to 90%. Furthermore, no adverse impacts were identified as a direct consequence of the prescribed fire activity other than the escape onto private property.

Explanation of the outcome or consequences that led to the decision to declare:

Ignition of Unit 7-10H commenced on December 4, with operations fully completed and the unit transitioned to patrol status and from the RXB3 to the Duty Officer by 14:40. Consistent with the prescribed fire plan, the unit underwent multiple patrols. Heat was subsequently detected within adjacent units on December 22 and December 30, and all such areas were mopped up. Unseasonably warm and dry conditions persisted throughout January.

On January 11, Bureau of Land Management (BLM) personnel were dispatched to a wildfire that, while under Forest Service (FS) jurisdiction, had BLM suppression responsibility. Local volunteer fire department (VFD) personnel also responded to the wildfire reported in the vicinity of Unit 7-10H. A local fire investigator confirmed the fire's origin within the 7-10H prescribed fire unit. The wildfire resulted in minimal consequences, specifically burning 1.16 acres on private property and damaging two privately owned fence braces. On January 12th, after confirmation that the RX was the source of the fire, the portion of the Prescribed Fire that had moved on to private property was declared a wildfire.

Declared Wildfire Review



Map 1: Map of the Little Snowies project area vicinity.

Environmental Conditions

The National Weather Service (NWS) initially predicted above-normal precipitation for the project area in late November 2025. While the Little Snowy Mountains were not in drought in late November/early December, a drying trend emerged, leading to D0 (Abnormally Dry) drought conditions by early January in both the Big and Little Snowy Mountains due to unseasonably warm and dry weather. Snow depth, initially at the long-term average on December 3rd, subsequently decreased.

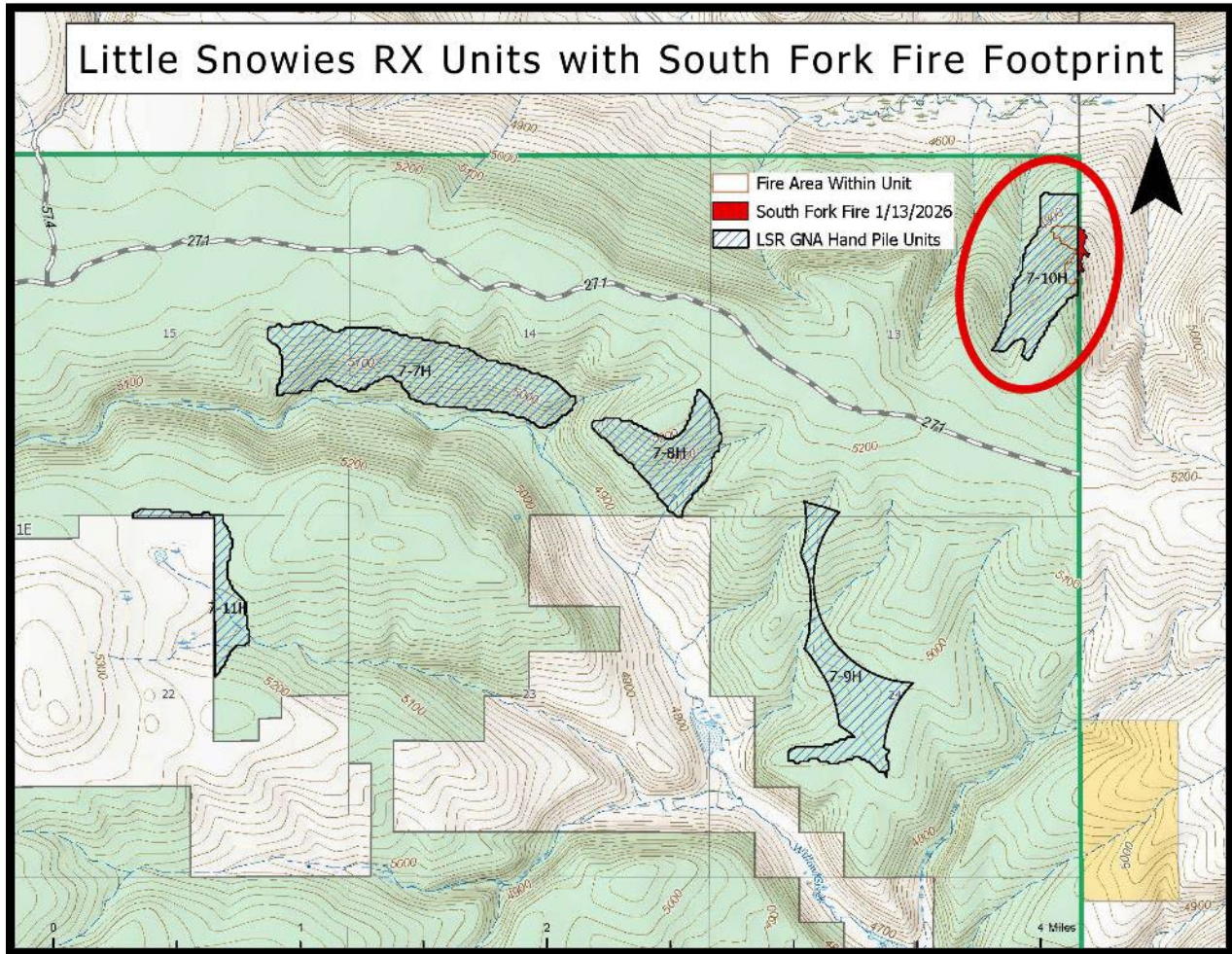
Specific weather observations included cold, wet conditions at ignition on December 3rd (below 40°F, 90% RH), followed by a warm and dry December, culminating in unseasonably high temperatures (50°F) and low humidity (14%) by January 11th. Significant wind events with gusts up to 50 MPH occurred between December 16th and 19th, but no fire perimeter growth was observed. Fire danger, measured by the Energy Release Component (ERC), was initially low on December 3rd but rose significantly to well above normal levels by early January, coinciding with a smoke report.

Narrative

December 3rd, 2025

Declared Wildfire Review

Pile burning operations for the Little Snowies project were scheduled for early December (Map 2). Weather conditions were favorable, characterized by adequate snow cover (3-4 inches) and extended forecast calling for cool temperatures and normal to above normal precipitation. Typically, snow cover that establishes in December persists until March; however, historical data indicates instances where unseasonably warm and dry conditions can lead to premature snowmelt. With the approval of Prescribed fire plan components 2A and 2B, ignition operations commenced. Initial ignitions focused on Unit 7-11H to address piles from the previous year that had experienced suboptimal consumption due to excessively wet conditions, as well as unit 7-7H. A total of 20 acres were treated on the initial day of the prescribed fire.



Map 2: Map of the Little Snowies project area and vicinity of prescribed fire escape (South Fork Fire). Unit 7-10H is circled in the upper right corner of the map.

December 4th, 2025

Following a successful initial day of operations, ignitions resumed on December 4. Prescribed fire plan components 2A and 2B were fully executed, and implementation commenced on Units 7-8H and 7-9H, concluding on Unit 7-10H by 14:00. Active snowfall was occurring at the time of completion. No holding issues or concerns were encountered during either day of ignition operations. All piles, constructed by

Declared Wildfire Review

hand, were ignited using a drip torch, with sufficient needle content within the piles facilitating easy ignition. Fire was transitioned from RXB3 to Duty Officer and placed in patrol status.

December 9th, 2025

Additional units within the Little Snowies project area were successfully ignited and subsequently transitioned from RXB3 to Duty Officer and placed in patrol status.

Note for Patrol Phase:

Time associated with travel to the Little Snowies RX and lower staffing levels associated with time of year were factors identified by participants as challenging but not directly impacting the outcome. Travel took 2-3 hours each way to the project area, making patrols a full day commitment. The project was initiated under favorable conditions and forecasts that would have required little patrol since snow was on the ground. The change in weather to unseasonably warmer and drier conditions occurred during a time when staffing levels at the district and in dispatch would be at their lowest. Participants felt somewhat challenged to not adversely impact schedules of district personnel or dispatch by asking them to work longer or extra shifts.

December 16th, 2025

Previously burned units were patrolled. No heat or creep was reported. Significant wind events with gusts up to 50 MPH occurred between December 16th and 19th.

December 18th, 2025

Units were patrolled again. No heat or creep was reported.

December 21st, 2025

In the evening, the District received a report of potential fire spread outside of the pile footprint within the Little Snowies project area.

December 22nd, 2025

District personnel responded to the potential fire spread outside of piles in the morning and identified the area of fire spread/creep. This heat source was approximately 1/8th acre and was subsequently mopped up. Concurrent inspections of adjacent units revealed no additional heat or fire creep.

December 30th, 2025

During patrols, heat was detected within an adjacent unit, creep was identified under sheltered canopy and exposed areas fully consumed litter. Areas of heat were mopped up and no additional heat was identified in other patrolled units, including 7-10H.

January 8th, 2026

Previously burned units were patrolled. No heat or creep was reported.

January 11th, 2026

Declared Wildfire Review

Local Volunteer Fire Department (VFD) and Bureau of Land Management (BLM) personnel were dispatched to a wildfire on private property adjacent to Unit 7-10H. Resources successfully suppressed the wildfire (South Fork Fire), which totaled approximately 5.1 acres. Of this, 1.16 acres were on private land, and 3.93 acres were within the 7-10H prescribed fire unit. Fire behavior was characterized by low intensity, primarily as a surface fire, with no timber loss observed on private land. Damage was sustained by two fence braces, which the local unit subsequently replaced (Photo 1). A local fire investigator was engaged to determine the source and point of origin of the wildfire. The investigation subsequently linked the origin to a pile located approximately 100 yards from the unit/private property boundary.



Photo 1: Image of private fence damage, resulting from the South Fork Fire

January 12th, 2026

On January 12th, after confirmation from the fire investigator that the RX was the source of the fire, the portion of the Prescribed Fire that had moved on to private property was declared a wildfire. The declaration was made by the Agency Administrator after discussions with the District Fire Management Office who was also the Duty Officer.

PMS 484 NWCG Standards for Prescribed Fire Planning and Implementation states (and the Burn Plan is consistent with):

A prescribed fire, or a portion, or segment of a prescribed fire, must be declared a wildfire by those identified in the plan with the authority to do so, when either or both of the following criteria are met:

- Prescription parameters are exceeded and holding, and contingency actions cannot secure the fire by the end of the next burning period, or,

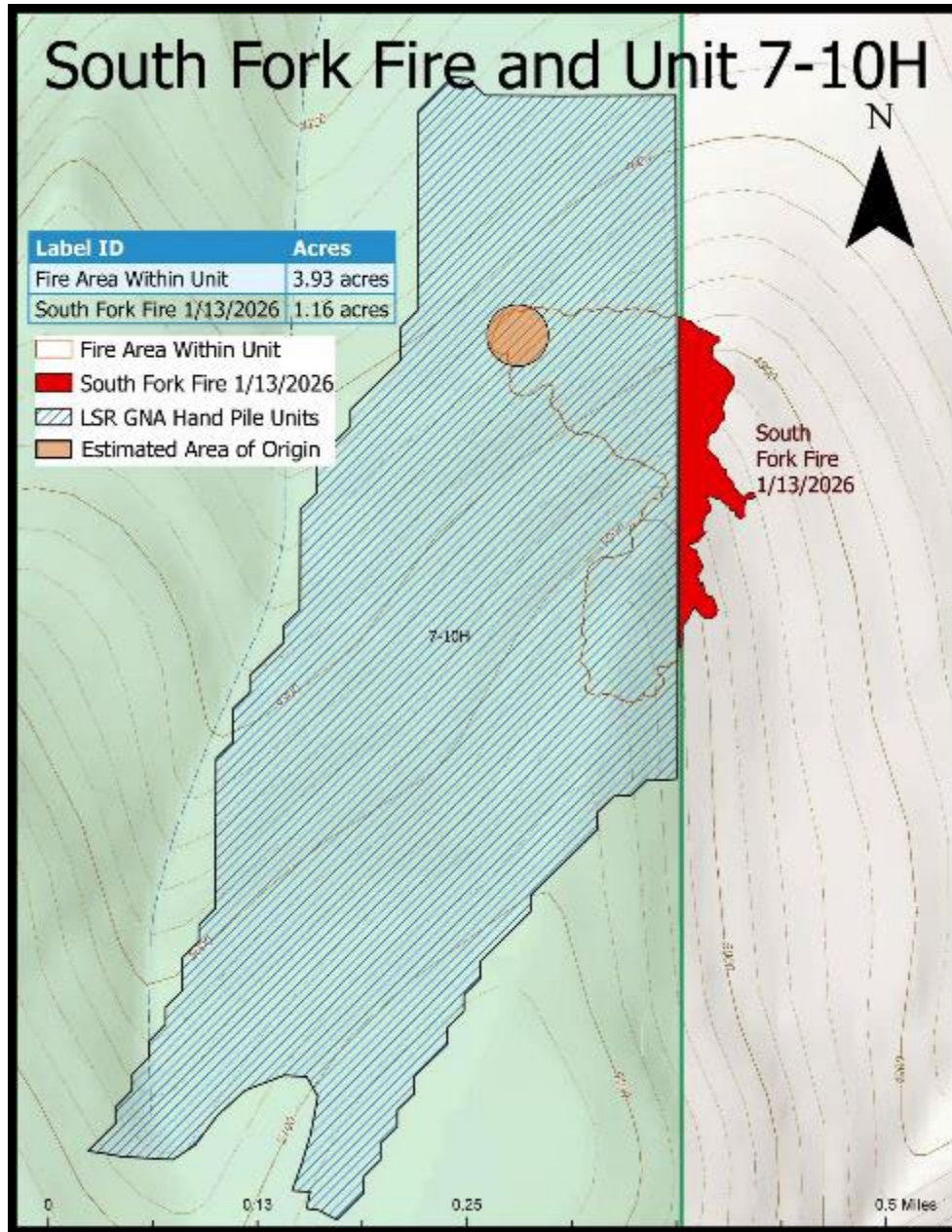
Declared Wildfire Review

• The fire has spread outside the project area or is likely to do so, and the associated contingency actions have failed or are likely to fail and the fire cannot be contained by the end of the next burning period.

A prescribed fire can be declared a wildfire for reasons other than those identified above if events cannot be mitigated as determined by the Burn Boss and Agency Administrator.

The spread of a prescribed fire outside of the project area, even if it is private property or another jurisdiction, may not necessarily require a declaration of a wildfire per policy, it leaves discretion with the individual designated that authority in the burn plan. In this situation, the AA and FMO made the decision to declare the prescribed fire a wildfire based on the suppression response from the BLM and Volunteer Fire Department in conjunction with the spread onto private property.

The Agency Administrator and Duty Officer maintained close contact with the Forest Supervisor and Forest Fire Staff, ensuring prompt notification immediately following the wildfire declaration. The primary cause of the escape was attributed to a sustained period exceeding five weeks of unseasonably warm and dry conditions, compounded by high wind speeds.



Map 3: Map of Little Snowies unit 7-10H and escaped wildfire (South Fork) with estimated point of origin based on investigation report. Area was mapped on January 13th, 2026.

Conclusion

The Judith-Musselshell Ranger District implemented its prescribed fire plan under favorable weather conditions and forecasts. Consistent with the Burn Plan, the District proactively responded to the onset of rapidly deteriorating weather that occurred ten days after ignition by intensifying patrol efforts. Weather conditions observed during January, including those at the time of the declared wildfire, significantly deviated from seasonal norms, aligning more closely with typical July conditions. Thirty-eight days after ignition, a wildfire was declared. While additional increased frequency or intensity of patrols might or

Declared Wildfire Review

might not have altered the outcome, the patrol strategy implemented by the District was deemed reasonable.

“Wind events make us nervous, even in the winter.” -FMO

The Judith-Musselshell District has a heightened awareness of the possibility of late fall and winter fire events from pile burning based on local experience with the 1990 Turkey Fire that burned over 4,000 acres and damaged structures. The District regularly discusses the possibility of another similar event occurring as part of the planning and implementation of their pile burning program.

The review team identified inconsistencies between the burn plan and policy, as well as instances where implementation did not fully align with the plan. However, none of these factors were determined to have directly contributed to the subsequent wildfire declaration. The primary contributing factor, as identified by the review team, was the significant disparity between actual and predicted (and normal) weather conditions.

Both the Judith-Musselshell Ranger District and the Helena-Lewis and Clark National Forest are actively and constructively engaged in the review of this incident, approaching it as a valuable learning and program-building experience.

Lessons Learned

Lessons Learned by The Participants

1. Extended travel times to and from burn units may require thorough coordination and pre-season planning with district personnel and dispatch before, during, and after ignition periods, and particularly during subsequent patrol phase; this is essential to ensure adequate staffing and coverage, thereby reducing the likelihood that time limitations will become a factor in decision making.
2. Consider revising contracted statements of work to incorporate specific requirements that minimize the presence of large logs and course woody debris adjacent to constructed piles particularly near identified values at risk, thereby minimizing potential creep. Consider the complexities associated with contractual inspections and maintain adequate documentation.
3. Prescribed fire plans should clearly delineate specific areas and conditions that necessitate additional containment line construction or modifications to the unit layout, particularly when in proximity to identified values at risk.
4. Recognizing rapid snowmelt as a potential occurrence, proactive evaluation of potential negative consequences stemming from abnormal weather conditions should inform burn unit design, staffing, patrol, and mop-up protocols. Discuss past events with all fire management staff to promote a continued learning environment.
5. To prevent complacency, particularly after a previously burned unit has withstood multiple adverse weather events, patrol standards must be clearly defined within the prescribed fire plan and fully implemented and documented until the prescribed fire is officially declared out.
6. Developing and implementing district or forest-wide standards and procedures is crucial for ensuring the consistent, accurate, and comprehensive documentation of all prescribed fire phases.

Declared Wildfire Review

Identifying best practices from other Forests or Regions that have adopted similar methodologies would be beneficial.

7. Ensure that qualifications of all individuals required to implement the prescribed fire are consistent with qualifications outlined in the prescribed fire plan and are confirmed in the IQCS record. Additionally, pay particular attention to gathering and ensuring qualification experience is accurately documented in IQCS.
8. Individuals and supervisors bear the responsibility for verifying their qualifications and current qualification status/currency, as well as for maintaining precise and comprehensive experience records. All qualifications utilized should be accurately documented on the individual's Red Card.

Lessons Learned by The Review Team

1. All components of the prescribed fire plan must be developed with a clear assurance of their ability to implement and attainability. Consequently, any measure included within the plan is considered a mandatory requirement for completion.
2. During preseason planning and preparation, rigorous attention must be given to prescribed fire plan documentation. This involves confirming the currency and proper authorization of all signatures and dates, ensuring comprehensive understanding of all plan components, and verifying that all requisite forms are accurately completed by the assigned burn boss and Agency Administrator prior to prescribed fire implementation.

Appendix I: Analysis and Assessments

The *National Wildfire Coordinating Group Standards for Prescribed Fire Planning and Implementation (PMS 484)* requires the following analyses and assessments be made as part of any declared wildfire review:

1. An analysis of the seasonal severity, weather events, and on-site conditions leading up to the wildfire declaration.
2. An analysis of the prescribed fire plan for consistency with agency policy and guidance.
3. An analysis of prescribed fire implementation for consistency with the prescription, actions, and procedures in the prescribed fire plan.
4. The approving agency administrator's qualifications, experience, and involvement.
5. The qualifications and experience of key personnel involved.

#1: Analysis of seasonal severity, weather events, and on-site conditions.

Climate Outlook and Drought Conditions: The National Weather Service (NWS) Climate Prediction Center's 8–14-day outlook, issued November 30, 2025, predicted above-normal precipitation for the project area. This forecast was consistent with previous 2025 outlooks and suggested continued favorable conditions for project implementation (see figure below).

Declared Wildfire Review

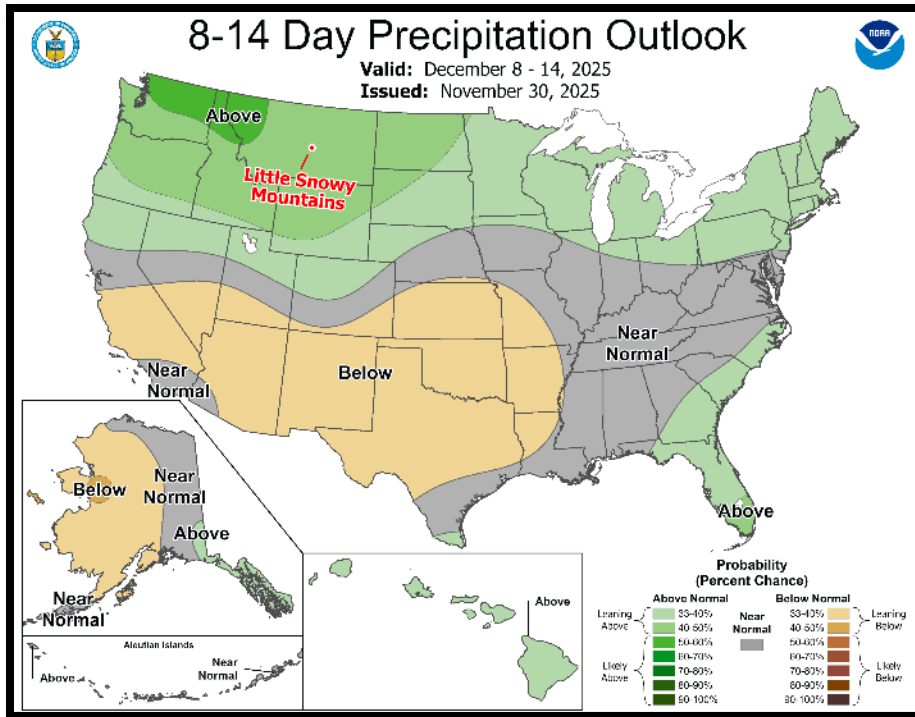


Figure 1: Precipitation Outlook (8-14) Day from the National Oceanic and Atmospheric Administration. Issued on November 30th, 2025.

Climate data, obtained from the Montana Climate Office (<https://climate.umt.edu/drought/>), monitored drought conditions based on the Standardized Precipitation Index (SPI). Ninety-day SPI data revealed that the Little Snowy Mountains were not experiencing drought conditions from late November through early December, having received significant rain and snow prior to ignition. However, 60-day SPI data clearly displayed a drying trend, with conditions remaining below the threshold for Drought Monitor category D0 (the lowest level of drought indicators). By early January, 45-day SPI data indicated accelerated drying in response to unseasonably warm and dry weather, evidenced by the emergence of D0 drought conditions in both the Big and Little Snowy Mountains (see figures below).

Declared Wildfire Review

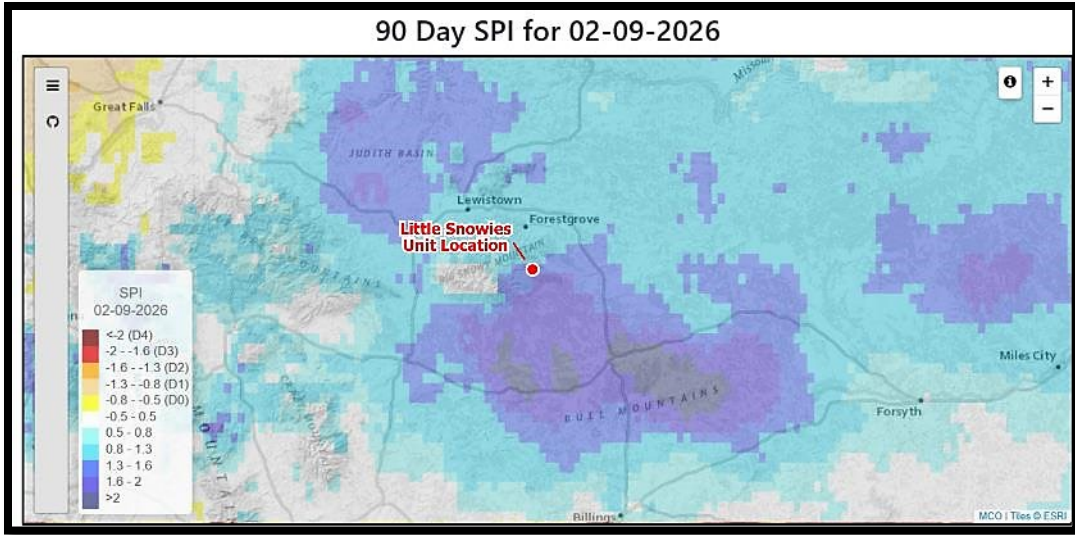


Figure 2: Standardized Precipitation Index at 90-day average conditions for the area of the Little Snowy Mountains.

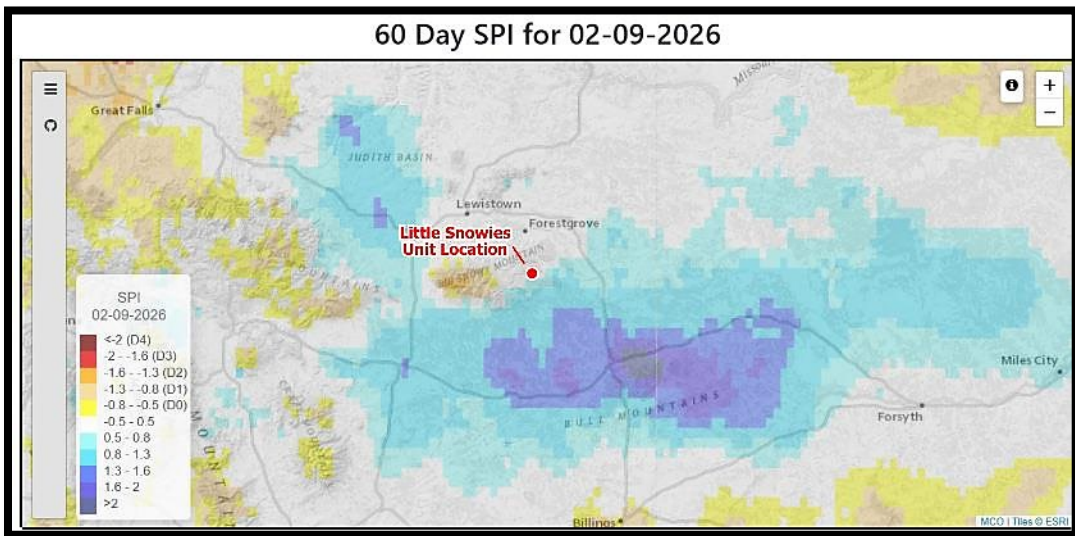


Figure 3: Standardized Precipitation Index at 60-day average conditions for the area of the Little Snowy Mountains.

Declared Wildfire Review

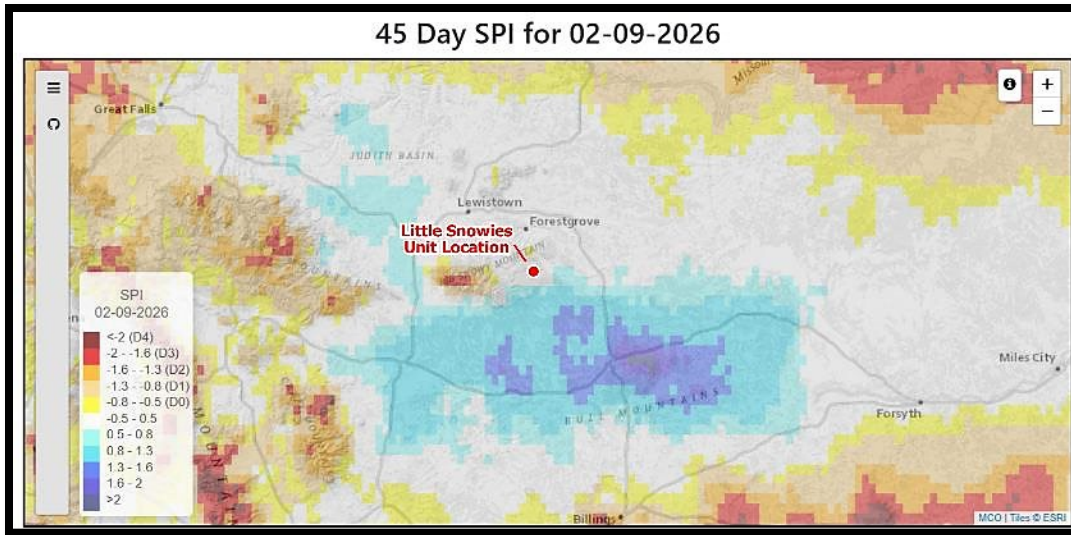


Figure 4: Standardized Precipitation Index at 45-day average conditions for the area of the Little Snowy Mountains.

Data from the closest SNOTEL (Snow Telemetry) site, located in the Big Snowy Mountains just west of the project area, indicated snow depth was at the long-term average at the time of ignition. Snow depth subsequently decreased throughout December in response to warm and dry weather (<https://nwcc-apps.sc.egov.usda.gov/>) (see figure below).

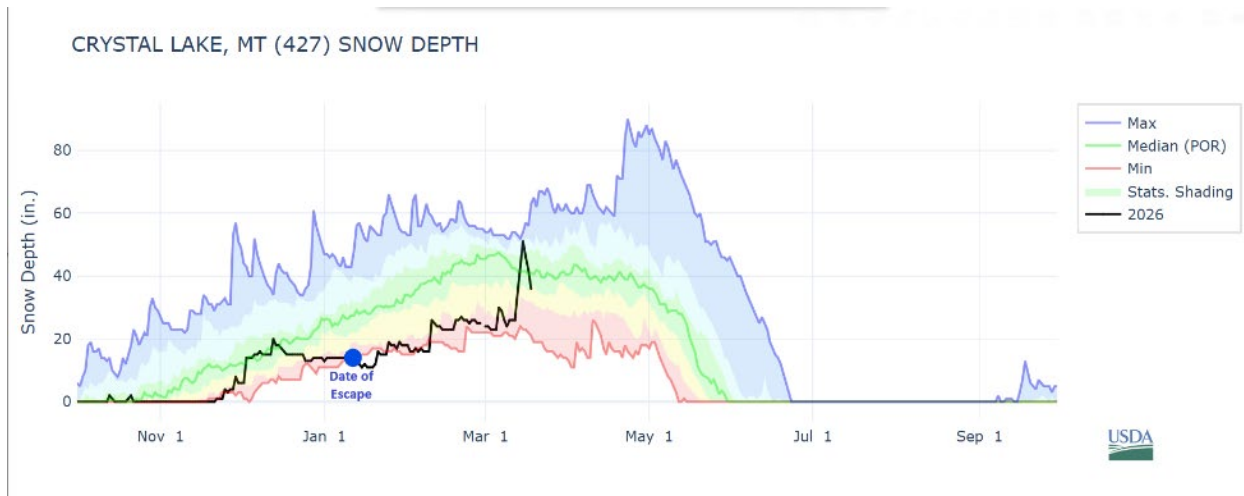


Figure 5: SNOTEL data chart from the Crystal Lake SNOTEL site displaying snow depth since October 2025

Weather Summary: On December 3, the burn unit experienced temperatures below 40°F and relative humidities (RHs) approaching 90%. These conditions were consistent with the wet and snowy environment observed across the pile burn units during ignition. A warm and dry December culminated in high temperatures reaching the 50-degree Fahrenheit range and RHs as low as 14% on January 11, conditions significantly outside the seasonal norms for the site (see figures below).

Declared Wildfire Review

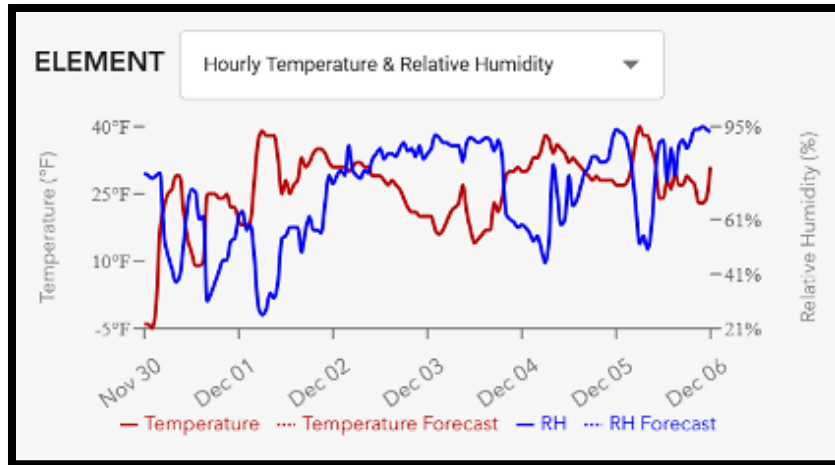


Figure 6: Hourly temperature and relative humidity trend for December 2025 for the Little Snowy RAWS (242207)

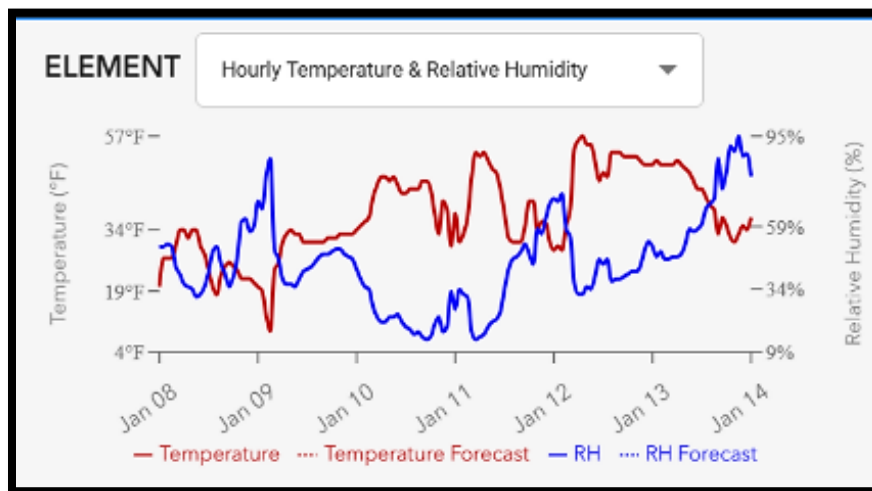


Figure 7: Hourly temperature and relative humidity trend for January 2026 for the Little Snowy RAWS (242207)

Additionally, central Montana experienced a series of significant wind events between December 16 and 19, with gusts approaching 50 MPH recorded at the Little Snowy Remote Automatic Weather Station (RAWS). In response, forest fire staff increased patrol and monitoring efforts. The pile units were thoroughly tested by these events, with no perimeter growth observed (see figure below).

Declared Wildfire Review

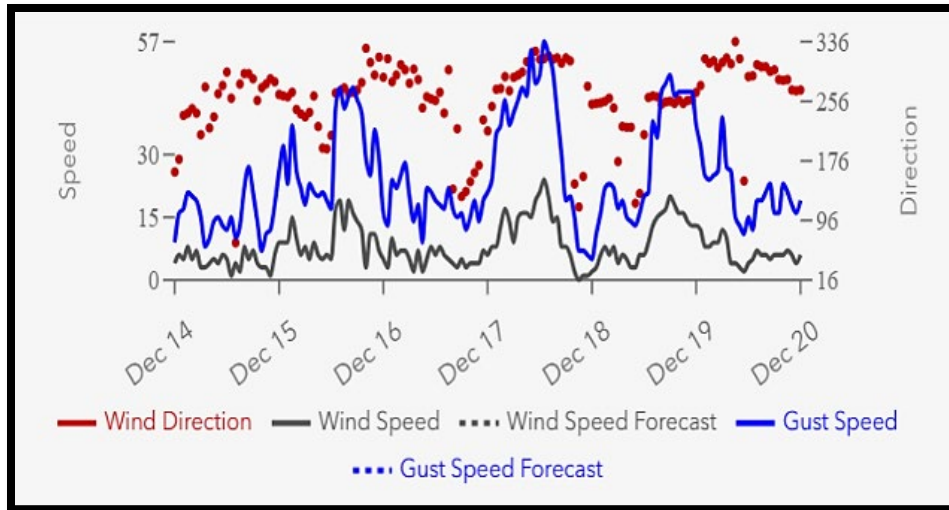


Figure 8: Hourly wind speed and direction trend for December 2025 for the Little Snowy RAWS (242207)

Fire Danger Indices: The Little Snowy Mountains are located within the Northern Rockies Predictive Services area NR13. The Energy Release Component (ERC) for the first day of ignition, December 3, was below long-term averages (<10). Indices subsequently trended upward throughout the remainder of December, reaching levels well above normal for the time of year (>25) by early January. This increase coincided with the January 11, 2026 smoke report (see figures below).

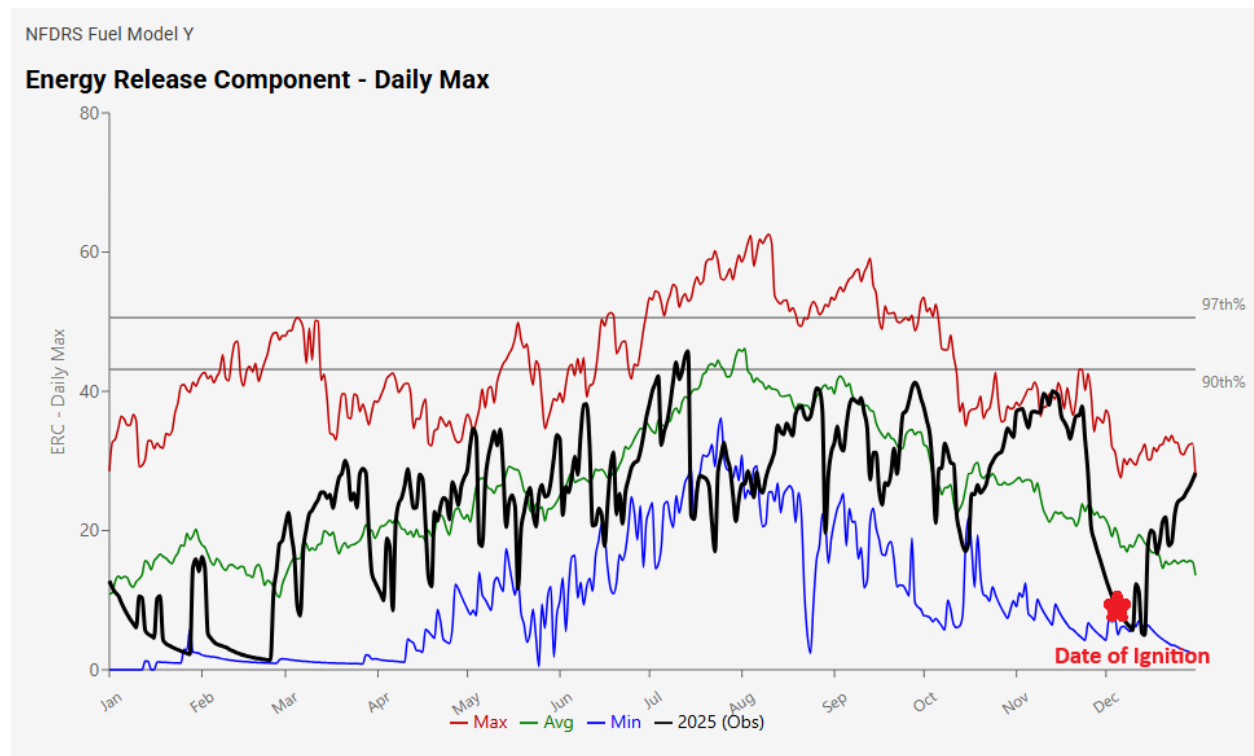


Figure 9: Daily Max Energy Release Component from the Little Snowy RAWS for 2025

Declared Wildfire Review

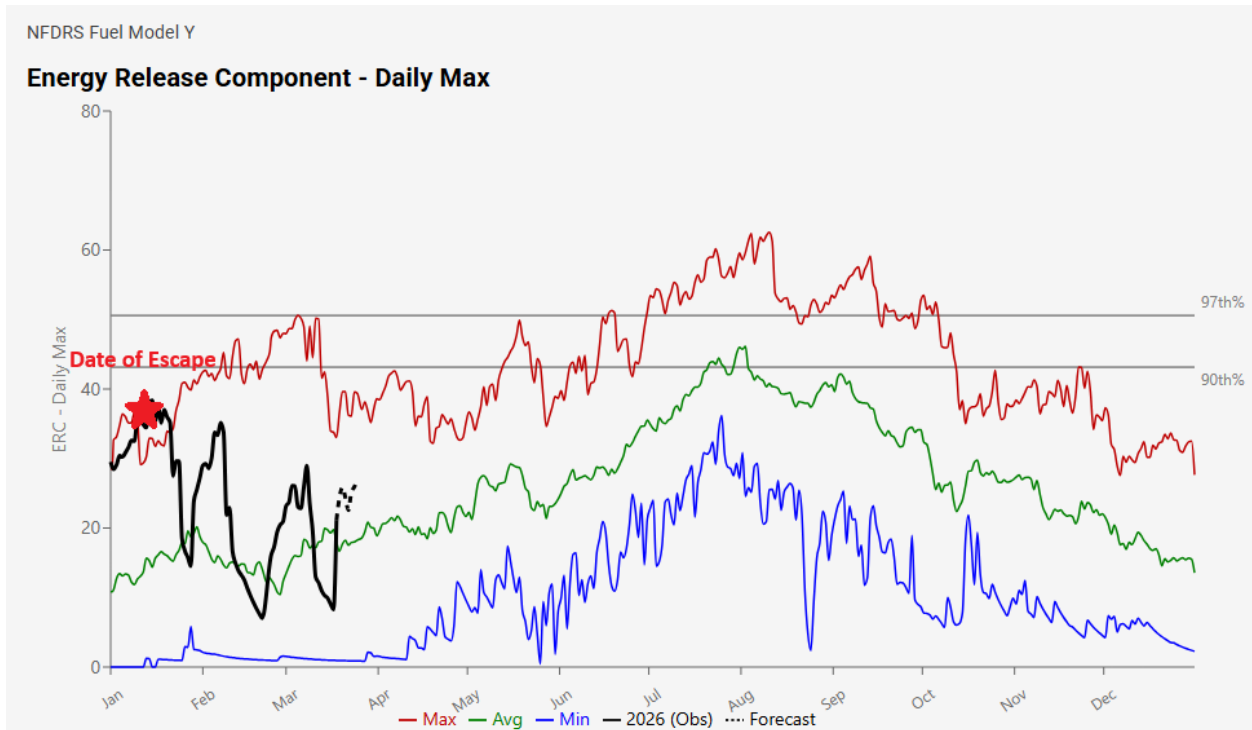


Figure 10: Daily Max Energy Release Component from the Little Snowy RAWS for 2026

The Burning Index (BI), generally an accurate predictor of fire potential at lower elevations in central Montana, displayed a similar trend to the ERC over the December to January period. BI levels were normal at the beginning of December but trended upward through early January. From December 31 to January 14, BI levels approached record highs (25), a range more characteristic of July than January (see figures below).

Declared Wildfire Review

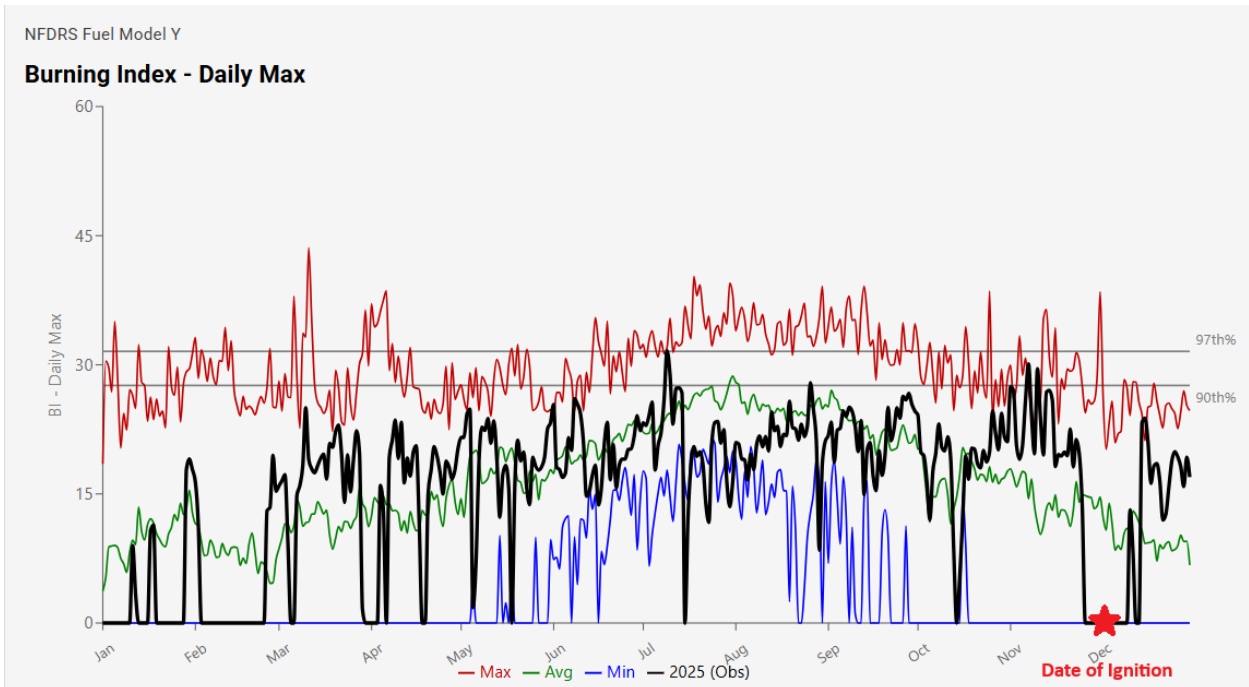


Figure 11: Daily Max Burning Index for the Little Snowy RAWS for 2025

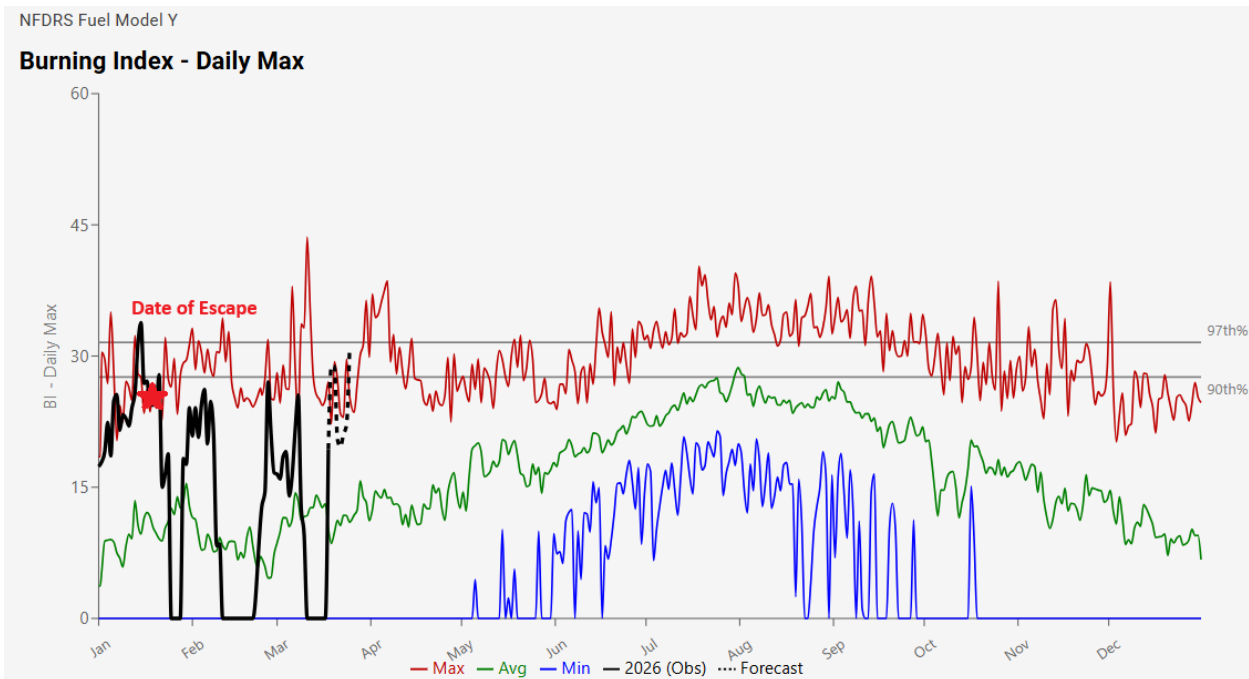


Figure 12: Daily Max Burning Index for the Little Snowy RAWS for 2025

Declared Wildfire Review

#2: Analysis of the prescribed fire plan for consistency with agency policy.

Analysis of Judith-Musselshell RD-District Wide Pile Prescribed Fire Plan Elements for consistency with policy and whether the element may have been a contributing factor to the outcome.

Prescribed fire plan elements	Consistent with policy (NWCG and USFS) ¹ (Yes or No)	Comments	Contributing factor? (Yes or No)
Element 1: Signature Page	Yes	All signatures are on the burn plan cover page. Burn Plan Preparer, Agency Administrator, and Technical Reviewer signed 12/2025.	No
Element 2A: Agency Administrator Ignition Authorization	Yes		No
Element 2B: Prescribed Fire GO/NO-GO Checklist	Yes		No
Element 3: Complexity Analysis Summary and Final Complexity	Yes	Original Complexity review and signed in 2022 and refreshed periodically. Most recent signature on Complexity Analysis is 12/3/2025 by Agency Administrator and Technical Reviewer. Burn Plan preparer did not sign same page as Agency Administrator or Technical Reviewer but had signed separate page and previous versions for multiple years in the hard copy file on the district.	No
Element 4: Description of Prescribed Fire Area	Yes	Consider listing out fuels directly by fuel model name instead of by verbal description (ex. TL3 instead of Timber Litter Fuels). Written descriptions in Element 4 matches listing in modeling to those contained in Scott and Burgan 2006. See Appendix E. Consider clarifying and consolidating project areas, acres, and units to help clearly identify where piles are being burnt. This will help clearly define what is covered by the 2A. [Programmatic burn plan tiered down to specific pile burn area location on jurisdiction, then tiered down to a specific unit in the pile burn area, then referenced to acres where the work is being accomplished for the burn period authorized in the 2A and 2B]	No
Element 5: Objectives	Yes	Consider identifying resource objectives specific for this pile burn plan or specific areas identified in the burn plan.	No
Element 6: Funding	Yes		No
Element 7: Prescription	Yes	See Appendix E for modeling assumptions. Recommend a more detailed description of prescription parameters.	No
Element 8: Scheduling	Yes		No

Declared Wildfire Review

Prescribed fire plan elements	Consistent with policy (NWCG and USFS) ¹ (Yes or No)	Comments	Contributing factor? (Yes or No)
Element 9: Pre-burn Considerations and Weather	No	Element 9 does not contain language for USDA Forest Service National Prescribed Fire Program Review Appendix B direction that requires language to “Ensure that Element 9B describes the methods and frequency for obtaining weather measurements as well as the process for providing accurate information to NWS to improve the accuracy of their resulting forecast” Language can include but is not limited to use of observations taken from Little Snowy RAWS; or, weather taken at a determined interval established by burn boss day of burn.	No
Element 10: Briefing	Yes		No
Element 11: Organization and Equipment	Yes		No
Element 12: Communication	Yes		No
Element 13: Public and Personnel Safety and Medical	Yes		No
Element 14: Test Fire	Yes		No
Element 15: Ignition Plan	Yes		No
Element 16: Holding Plan	Yes		No
Element 17: Contingency Plan	Yes	More specific resources were also identified in Element 11.	No
Element 18: Wildfire Declaration	Yes	The prescribed fire plan's language should be clarified to align more with PMS 484 language.	No
Element 19: Smoke Management and Air Quality	Yes		No
Element 20: Monitoring	Yes		No
Element 21: Post Burn Activities	Yes		No
Prescribed Fire Plan Appendices: Appendix A: Maps: Vicinity, Project (Ignition Units)	Yes	Identified all maps outlined in Element 4 in the burn plan located in Appendix A. Recommend updating large scale proximity map to identify new pile burn areas as they develop every year during the review process.	No
Appendix B: Technical Review Checklist	Yes		No

Declared Wildfire Review

Prescribed fire plan elements	Consistent with policy (NWCG and USFS) ¹ (Yes or No)	Comments	Contributing factor? (Yes or No)
Appendix C: Complexity Analysis	Yes	See Element 3 listed above for signature documentation. Agency Administrator was involved in the development of the complexity analysis as recorded for descriptors listed in the preliminary risk of the complexity analysis. Recommend identifying close adjacent values, especially when burning near private property. It was mentioned in the interviews that this unit should have been treated different from other units in the plan due to its proximity to private property. Identifying values could have helped realize concerns earlier on.	No
Appendix D: JHA or Risk Assessment	Yes		No
Appendix E: Fire Behavior Modeling Documentation	Yes		No
Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)		Not Included – Optional	

1. National Wildfire Coordinating Group and United States Forest Service (include Regional and Forest level supplements if applicable and 2022 National Prescribed Fire Program Review-Quality Assurance Checklist and associated *USFS RxFireTemplate December 2022*)

#3: An analysis of prescribed fire implementation for consistency with the prescription, actions, and procedures in the prescribed fire plan.

Analysis of Judith-Musselshell RD-District Wide Pile Prescribed Fire Plan Implementation for consistency with the prescription, actions, and procedures in the prescribed fire plan and whether that may have been a contributing factor to the outcome.

Prescribed fire plan elements	Implementation consistent with prescription, actions, and procedures (Yes or No)	Comments	Contributing factor? (Yes or No)
Element 1: Signature Page	Yes	Compliant.	No
Element 2A: Agency Administrator Ignition Authorization	No	Element 2A was signed by unqualified burn boss as per red card and IQCS records. See Appendix #5. Drought monitor awareness must identify drought level. Drought level was never indicated, just that it was showing improvement.	No
Element 2B: Prescribed Fire GO/NO-GO Checklist	Yes	Compliant.	No

Declared Wildfire Review

Element 3: Complexity Analysis Summary and Final Complexity	Yes	Compliant.	No
Element 4: Description of Prescribed Fire Area	Yes	Compliant.	No
Element 5: Objectives	Yes	Compliant.	No
Element 6: Funding	Yes	Compliant.	No
Element 7: Prescription	Yes	Compliant.	No
Element 8: Scheduling	Yes	Compliant.	No
Element 9: Pre-burn Considerations and Weather	No	Verbal confirmation that notifications were made in interviews. No documentation was included in the record. However, spot weather forecasts were required each day of ignition by the burn plan and not obtained.	No
Element 10: Briefing	Yes	Compliant.	No
Element 11: Organization and Equipment	Yes	Compliant.	No
Element 12: Communication	Yes	Compliant.	No
Element 13: Public and Personnel Safety and Medical	Yes	Compliant.	No
Element 14: Test Fire	No	No documentation as required by this section of the burn plan.	No
Element 15: Ignition Plan	Yes	Compliant.	No
Element 16: Holding Plan	No	Piles were being checked as district felt adequate and within the parameters defined by the holding plan. District responded to heat reported as it was discovered and as the weather changed. After monitoring, no heat was observed for considerable time. These observations were also combined with units being "wind tested" with significant events over subsequent weeks following ignition. Step up plan was followed when forecasts began to change. See narrative about atypical weather condition change and timeline of events. However, daily documentation required in this section for post burn monitoring and patrol actions was not recorded as required in the burn plan.	No
Element 17: Contingency Plan	Yes	Compliant.	No

Declared Wildfire Review

Element 18: Wildfire Declaration	Yes	Compliant.	No
Element 19: Smoke Management and Air Quality	Yes	Compliant.	No
Element 20: Monitoring	No	Smoke documentation could not be located as required by this section of the burn plan.	No
Element 21: Post Burn Activities	No	No documentation as required by this section of the burn plan.	No
Prescribed Fire Plan Appendices: Appendix A: Maps: Vicinity, Project (Ignition Units)	Yes	Compliant.	No
Appendix B: Technical Review Checklist	Yes	Compliant.	No
Appendix C: Complexity Analysis	Yes	Compliant.	No
Appendix D: JHA Risk Assessment	Yes	Compliant.	No
Appendix E: Fire Behavior Modeling Documentation	Yes	Compliant.	No
Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)	Yes	Compliant.	No

#4: The approving agency administrator’s qualifications, experience, and involvement.

The Burn Plan and its associated Complexity Analysis were both formally approved by the District Ranger, who is a qualified Type 3 Agency Administrator (RXA3) for the unit. This same qualified Agency Administrator subsequently authorized the Ignition Authorization (element 2A), permitting the implementation of the burn plan. Possessing extensive experience in the area and with pile burning operations, the Agency Administrator maintained active involvement throughout the project

#5: The qualifications and experience of key personnel involved.

The Burn Plan Preparer and the Burn Plan Reviewer were both qualified as Type 2 Burn Bosses (RXB2), despite the complexity of this burn plan necessitating a Type 3 Burn Boss (RXB3) qualification.

The assigned Burn Boss was not currently qualified as an RXB3. While the individual's previous RXB3 qualification had expired due to a lack of currency, and a taskbook for recertification was completed, the recertification process was never finalized. Consequently, neither the red card nor the IQCS Master

Declared Wildfire Review

Record indicated a current RXB3 qualification. Furthermore, the Burn Boss lacked a current record of the RT-300 Burn Boss Refresher within their IQCS record.

Of the five individuals assigned to implement the prescribed burn on the day of ignition, there were two additional qualified RXB3s and one additional qualified RXB2. All other assigned positions met the required qualification standards.

Appendix II: Contributing Factors

To better understand the factors associated with prescribed fires that result in declared wildfires, the U.S. Forest Service maintains the USFS Prescribed Fire Escapes Database. This database categorizes contributing factors present in each report to identify commonalities and trends over time across all such events to better evaluate the prescribed fire program.

Each declared wildfire review team is asked to identify any of the following contributing factors or conditions that pertain to the event to help the Washington Office’s Fire and Aviation Management staff’s understanding of prescribed fire risks and learning opportunities across the entire program. The team should also identify new or unique contributing factors Fire and Aviation Management could consider tracking in the future.

Table 1. Contributing factors for identifying commonalities and trends over time

Category	Contributing Factor	Mark “X” If observed
Planning	Burn area boundaries not aligned with favorable locations for fire containment	
	Interdisciplinary team coordination lacking during design and planning of the treatment	
	Lack of proficiency using fire behavior and related modeling tools	
	Insufficient holding plan	
	Insufficient ignition plan	
	Insufficient mop-up and patrol plan	
	Insufficient contingency plan	
	Insufficient technical review	
	Complexity rating did not adequately reflect the conditions experienced	
Operations	Burn could not be completed and secured before forecasted worsening weather arrived	
	Test fire did not provide accurate representation of fire potential	
	Actions taken inconsistent with those described in the burn plan	
	Insufficient patrol after burn boss transfers control to local unit	X
Communications	Unit boundaries or special features not communicated or identified accurately	
	Instructions not given or well understood	
Equipment	Malfunction or breakdown	
	Improper use or selection of equipment	
	Equipment not set up and tested prior to need	
Fire Environment	Extended fire persistence – 2 weeks or more in patrol status	X
	Actual weather experienced was outside what was forecast	X

Declared Wildfire Review

	Severe drought conditions contributing to unusually dry fuels	
Fuels	Higher than typical fuel quantity/loadings	
	Large machine piles	
	Hand piles	X
Human Factors	External influences or distractions	
	Internal stress or fatigue	

1. Operations - Insufficient patrol after burn boss transfers control to local unit: The patrol plan met policy and accounted for changing weather. The patrol plan was followed and increased in intensity and frequency due to drier conditions.

2. Fire Environment - Extended fire persistence – 2 weeks or more in patrol status: The declared wildfire occurred on this prescribed fire 38 days from ignition and was in patrol status for over 7 weeks.

3. Fire Environment - Actual weather experienced was outside what was forecast: Conditions during implementation were consistent with conditions outlined in the prescribed fire plan and identified to persist in the long-term forecasts. Subsequently, conditions and forecasts changed significantly, resulting in warmer and drier conditions than expected.

4. Fuels – Hand Piles: Pile: While pile burning was not identified as a direct contributing factor to this specific escape, it is important to note that prescribed fire escapes associated with pile burning are an increasingly common occurrence nationwide. These incidents are frequently linked to discrepancies between long-term weather forecasts and observed conditions. Residual heat in piled material often persists longer than in traditional broadcast prescribed fires, necessitating extended patrol durations and heightened vigilance to prevent future fire spread, particularly when weather conditions become unfavorable.

Appendix III: Findings and Recommendations

Findings (optional)

Not Applicable

Appendix IV: Chronology

<u>Date</u>	<u>Time</u>	<u>Unit</u>	<u>Activity</u>	<u>Source</u>
12/3	0725		2A Signed (Burn Boss/AA).	2A
12/3	1056	7-7H, 7-8H	Initiated Test Fire.	WILDCAD
12/3	1100	7-7H, 7-8H	Proceeded with ignitions to clean up previously burned unit .	WILDCAD
12/3	1438	7-7H, 7-8H	Resources began to leave the project area (20acres).	WILDCAD
12/4	0713		2A Signed (Burn Boss/AA).	2A
12/4			2B Signed (Burn Boss).	2B
12/4	1032	7-9H, 7-10H	Initiated Test Fire.	WILDCAD
12/4	1034	7-9H, 7-10H	Proceeded with ignitions on both units.	WILDCAD

Declared Wildfire Review

12/4	1440	7-9H, 7-10H	Concluded ignitions (80 acres).	WILDCAD
12/9	1122	7-11H	Additional units burned (18 acres).	WILDCAD
12/16	1231	Unspecified Units	Patrol on-scene.	WILDCAD
12/16	1516	Unspecified Units	Returning from patrol.	WILDCAD
12/16			Significant wind events with gusts up to 50 MPH occurred between December 16th and 19 th .	
12/18	1117	7-11H	Patrol on-scene.	WILDCAD
12/18	1344	7-11H	Returning from patrol.	WILDCAD
12/18		7-11H	Patrol of Little Snowies unit adjacent to 7-10H found no heat.	Patrol Summary
12/21			District received report piles spreading within the Little Snowies project area.	
12/22	1038	7-8H	Patrol on-scene.	WILDCAD
12/22	1326	7-8H	Returning from patrol.	WILDCAD
12/22		7-8H	Patrol in Little Snowies unit adjacent to 7-10H found small area of heat in 2-3 pile footprints and mopped them up.	Patrol Summary
12/30	1019	7-8H, 7-9H, 7-10H	Patrol on-scene.	WILDCAD
12/30	1258	7-8H, 7-9H, 7-10H	Returning from patrol.	WILDCAD
12/30		7-8H, 7-9H, 7-10H	Patrol in Little Snowies Unit adjacent to 7-10H found one pile footprint with heat and mopped it up. Patrol in 7-10H found no heat..	Patrol Summary
1/8		7-7H, 7-8H	Patrol in Little Snowies Units adjacent to 7-10H found no heat.	Patrol Summary
1/11			ESCAPE OCCURRED (South Fork Fire)	WILDCAD
1/12			Escape declaration made .	Documentation
1/13		All Units	Patrol walked perimeter and interior of Little Snowies Units adjacent to 7-10H and found no heat. Patrol walked 7-10 H outside of South Fork Fire perimeter, found no heat.	Patrol Summary
1/17		7-8H, 7-10H, 7-11H	Patrol hiked perimeter/interior of Little Snowies units including 7-10H. No fire activity.	Patrol Summary
1/18		7-9H, 7-10H	Patrol hiked perimeter/interior of Little Snowies units including 7-10H. No fire activity.	Patrol Summary

Note: Documentation for patrol activities did not always identify specific units patrolled as part of Little Snowies RX.

Appendix V: Delegation of Authority and Conduct of Declared Wildfire Review

File Code: 5140

Date: January 26, 2026

Declared Wildfire Review

Subject: Delegation of Authority- Declared Wildfire Review for South Fork Wildfire

To: Seth Carbonari, South Fork Declared Wildfire Review Team Leader

This letter formalizes your appointment as Review Team Leader to complete a Declared Wildfire Review for the Little Snowies Piles Prescribed Fire initiated on December 3, 2025 that resulted in the South Fork wildfire on the Judith-Musselshell Ranger District of the Helena-Lewis and Clark National Forest (HLF).

I expect an objective and insightful review. My intent is not to lay blame but to improve our processes and reduce the risk of future similar events.

I have approved the following review team roster that includes subject matter experts from various US Forest Service offices as well as other partner organizations:

- Jocee Hedrick, Northeastern Land Officer Area Manager, MT DNRC – DNRC Representative – Team lead/ Line Officer Shadow
- Arik Jorgensen, Zone Fuels Specialist, Caribou Targhee NF – RXB2
- Pat Harty, Regional Fuels for Montana BLM – BLM Representative
- Mike Kaiser, Helena Ranger District FMO – Local Expertise
- Wesley Hall, Fire Application Specialist, Rocky Mountain Research Station - Writer/Editor Lead
- Tamra Pontow, Fire Admin, HLF – Writer/Editor Shadow

As Team Leader, you have the authority to execute and complete a thorough review as described in this document. My expectation is that HLF Employees provide you and your team with any necessary documentation and support needed for the team to complete this review.

For necessary travel, salary or other costs related to this review, use the charge code South Fork Incident - PD SFPC26 override code 1542. For logistical needs, on-site meeting locations, and scheduling times to meet with District employees, please coordinate with the point of contact for the Judith-Musselshell Ranger District: Jason Oltrogge, District Ranger, (406) 380-1309. If there are needs for scheduling, coordination, logistics or support from the Supervisors Office, please contact Christine Droske, Forest Fuels Specialist, (406) 529-1750.

I expect the bulk of the review to occur on site during the week of February 09 - 13, 2026. You may base the team in either Helena or on the Judith-Musselshell district as you see fit. I expect you to complete an initial draft within 14 days which will allow time for regional and national level review and feedback needed to finalize the report and brief the Regional Forester within 60 days. I expect status updates on your team's progress according to the terms we agree to during your in-briefing. It will be the Forest's responsibility to distribute and share findings from the report with others rather than the Team lead or others' responsibility to do so in order to ensure the shared materials protect individuals and confidential information.

Thank you for your willingness to lead this important review. Please contact Christine Droske if you need to discuss the details of this assignment or to schedule key team meetings or status reports.

Declared Wildfire Review

Approved By: Emily Platt, Forest Supervisor, Helena Lewis and Clark National Forest

Accepted By: Seth Carbonari, Declared Wildfire Review Team Leader

Enclosure 1: Expectations for Conduct of Declared Wildfire Review

These expectations are intended to provide you with additional context to help guide you through the Declared Wildfire Review process for which your team has been assembled.

Policy

Per Forest Service Manual (FSM) 5140, all prescribed fires that result in a wildfire declaration must be reviewed according to the procedures found in the National Wildfire Coordinating Group Standards for Prescribed Fire Planning and Implementation, PMS 484. Throughout the review, refer also to the 2022 National Prescribed Fire Program Review-Quality Assurance Checklist and associated USFS RxFireTemplate December 2022.

Controls

Given the sensitive nature of these reports, team leaders, agency administrators, directors, and staff members are expected to maintain close control over all drafts, final reports, and related materials. Members may share information with other members of the team but may not share information with anyone outside of the team without the consent of the Helena-Lewis and Clark National Forest Supervisor.

In-Brief, Status Updates, and Out-Brief

You are scheduled to in-brief with on February 10 at 0830 in the Mann Gulch Conference Room, located at the Helena-Lewis and Clark NF Supervisor's Office.

I expect status updates on your team's progress according to the terms we agree to during your in-briefing. I expect you to complete an initial draft within 14 days which will allow time for regional and national-level review and feedback needed to finalize the report and brief the Regional Forester. If you need more time, or if you discover information that would warrant a different type of review or investigation, please contact Emily Platt, Helena Lewis and Clark National Forest Supervisor immediately to discuss further.

When your team is released from the local unit, I expect a final out-brief with myself and identified staff. As team leader you are responsible for providing me with the final report once complete.

Review Protocol

Use the Declared Wildfire Review Implementation Guide as a reference to complete the review. A copy of that guide can be found here: USFS- National Fire Use Branch, housed within the Fuels Community of Practice SharePoint site.

The goals of a declared wildfire review are to:

1. Allow those directly involved an opportunity for individual learning and performance improvement through self-reflection as well as feedback and critique from third-party peers and other experts.

Declared Wildfire Review

2. Provide for organizational learning and system-wide performance improvement by examining established policies, procedures, practices, and behaviors, offering advice to managers for actions to create systems that produce more reliable and less consequential results in the future.

3. Establish a factual account of the event that may be used in training, research, claims' proceedings, or similar uses.

To be clear, this is not a facilitated learning analysis (FLA). A declared wildfire review shares similarities with the FLA when it comes to interview techniques, storytelling techniques, development of the narrative, and providing an opportunity for read-back and validation by those interviewed. However, while the FLA is centered around learning and understanding of the event, it relies almost exclusively on what was learned by those directly involved. The declared wildfire review likewise seeks to learn and understand what happened from the perspective of those involved but also enlists third-party experts to provide additional context to the setting and conditions surrounding the event, and a critique of how applicable policy and standards were applied during training, planning, and implementation. I expect you to use a similar approach to interviews and other interactions as described in the FLA process though being clear that this is not an FLA but a review in pursuit of the goals described above.

Representing My Intentions

Employees or others you interview will want to know the purpose of this review and how the information they provide might be used. For example, could this affect their employment status, or result in criminal proceedings? I expect you will represent my intentions as follows:

Since the primary outcome of this review is to reduce the chances of a similar outcome in the future, I expect all agency employees to provide the declared wildfire review team with honest and constructive accounts of their experience. In pursuit of full transparency and disclosure of the events, I agree that no punitive actions will be taken by the Forest Service against any agency employee because of information provided to the review team. During the review, if it is discovered willful negligence or illegal activity may have led to the outcome, the team will notify me. All participants should understand the limits of my authority. Actions taken by private citizens or other agencies or organizations are outside of my control. It is possible administrative or legal proceedings could be pursued by others based on information from this review.

Format, Content and Organization

The content and organization of the final review must meet the minimum standards as described in National Wildfire Coordinating Group PMS 484 under the requirements of an "Outcome Review." Telling the story of what happened, the chronology of events, and the perspectives of the individuals involved is the focal point of the report. The Declared Wildfire Review must also address the five required analyses specified in National Wildfire Coordinating Group PMS 484. The methodology and format for addressing those analyses is discussed in the Declared Wildfire Review Implementation Guide-Appendix C.

Final Report Review and Submission Process

Use the process for draft review, upward reporting, and final submission found in the Declared Wildfire Review Implementation Guide housed in the Fuels Community of Practice SharePoint site [USFS National Fire Use Branch](#).

Appendix VI: Glossary of Terms

<https://www.nwcg.gov/publications/pms205/nwcg-glossary-of-wildland-fire-pms-205>

Appendix VII: Review Team

Team Leader:

Seth Carbonari, Deputy Forest Supervisor, Kootenai NF - Review Team Leader

Team Members:

- Jocee Hedrick, Northeastern Land Officer Area Manager, MT DNRC – DNRC Representative – Team Lead/Line Officer Shadow
- Arik Jorgensen, Zone Fuels Specialist, Caribou-Targhee NF – RXB2
- Pat Harty, Regional Fuels for Montana BLM – BLM Representative
- Mike Kaiser, Helena-Lewis and Clark NF, Helena Ranger District FMO – RXB2/Local Expertise
- Wesley Hall, Fire Application Specialist, Rocky Mountain Research Station – Writer/Editor Lead
- Tamra Pontow, Fire Admin, Helena-Lewis and Clark NF – Writer/Editor Shadow