



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Deschutes National Forest | Bend-Fort Rock Ranger District

June 2026

Pine Mountain RX

Declared Wildfire Review



- ☒ Forest Supervisor Delegation
- ☐ Regional Forester Delegation

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Executive Summary

The Bend-Fort Rock Ranger District of the Deschutes National Forest initiated firing operations for the Pine Mountain Prescribed Fire (Moderate Complexity) on May 5, 2026, with ignitions planned through May 8. The prescribed under-burn was comprised of three primary units within the same area broken into five blocks (3A, 3B, 3C, 4, and 5), all covered by the Pine Mountain RX Burn Plan. Conditions at the time of ignition on May 5 were dry and warm but still determined to be favorable and within the prescription parameters outlined in the burn plan. After a successful test fire, resources continued with hand ignitions to create a blackline around the perimeter of Block 3A with the intention of filling in the middle of the unit using aerial ignitions. A malfunction with the Unmanned Aircraft System (UAS) delayed aerial ignitions, but Block 3A was successfully completed at 21:44 on May 5 with 332 acres burned and no spot fires observed.

On the morning of May 6, all lines of Block 3A were confirmed as secure via UAS infrared (IR) thermal imaging and the unit was placed into holding status. During the test fire in Block 3B, mid-flame wind speeds exceeded prescription on exposed ridge tops but remained within prescription for the majority of the unit lower on the slope due to the sheltering effect of terrain and trees, and fire effects were considered favorable; the test fire was considered successful, and ignitions commenced following the Element 2B Go/No Go conversation and review. Late morning and early afternoon isolated torching was observed in areas of concentrated heavy fuels, resulting in multiple spot fires that were quickly and effectively identified and suppressed; the UAS platform was reconfigured for IR detection later that evening and identified no additional heat outside of containment lines. Ignitions were declared officially completed shortly after 22:00 with 186 acres accomplished. Plans for ignitions in Block 3C on May 7 were cancelled in favor of securing and mopping up Blocks 3A and 3B.

The following morning, May 7, conditions were initially described as calm at first light, but two spot fires were identified near the handline constructed along the ridgetop at 07:15; another spot was located 300 feet below the line and moving upward at 09:30 with additional spot fires identified over the next hour. At 11:00, fire behavior had intensified and was heading downhill toward 2017 Road and spotting ¼ mile below the road. At the same time, Agency Administrators (AAs) and forest leadership were meeting to discuss trigger points for a possible conversion to wildfire. As the afternoon progressed, additional resources were requested, multiple aircraft were mobilized, and the fire was estimated to be approximately 500 acres in size beyond the unit boundary. The fire reached the scar of the 2024 Pine Fire to the east and AAs and forest leadership met again to discuss conversion, ultimately transferring burn boss authority from the Prescribed Fire Burn Boss Type 2 (RXB2) to the district Fire Management Officer (FMO) at 15:24 and officially declaring the incident a wildfire at 16:06 on May 7.

Based on fire pattern indicators, the fire's origin was determined to be a spot fire that had ignited a decaying log approximately 41 feet outside the perimeter of Block 3B that spread in a northeasterly pattern through the understory. The fire burned through Forest Service (1091 acres), Bureau of Land Management (1174 acres), and privately owned land (303 acres) for a total of 2568 acres. No structures or property were damaged, and no injuries were reported by either responders or members of the public. Forward progression of the fire was stopped on May 8, and the Pine Mountain wildfire was declared fully contained at 10:03 on May 18, 2026.

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 Deschutes National Forest (Deschutes NF) encompasses nearly 1.6 million acres in central Oregon across Deschutes, Jefferson, Klamath, and Lake counties; the forest is split into the Bend-Fort Rock, Crescent, and Sisters Ranger Districts with its headquarters in Bend, where recreation is the primary economic driver and public engagement is high. The Deschutes NF is a part of the Central Oregon Fire Management Service (COFMS), a cooperative group that also includes the Ochoco National Forest, Crooked River National Grassland, and Prineville District of the Bureau of Land Management (BLM); COFMS also partners with the Oregon Department of Forestry (ODF) and hosts multiple National Resources.

In 2024, the Deschutes NF hosted the West Bend Pilot Project, a multi-agency tabletop exercise that included representatives from the Environmental Protection Agency (EPA), Department of Environmental Quality (DEQ), Oregon Health Authority (OHA), Deschutes County Health Services, ODF Smoke Management Program, US Forest Service (USFS), and many others to identify potential impacts and mitigations of the increasing pace and scale of prescribed fire in the area. Due to the efforts of the Pilot Project coupled with an approved Community Response Plan under Oregon's Smoke Management Plan, the community and supporting partnership agencies are well versed in smoke mitigations and communications, and prescribed fire has a liberal public license to operate in the Bend airshed. Relationships with partners and the public are strong and overwhelmingly supportive of prescribed fire treatments and operations conducted by the Deschutes NF.

The fuels program on the Deschutes is robust and accomplishes an average of 5205 acres of pile-burning in the fall and 4729 acres of under-burning in the spring through an average of 22 separate RX operations. After nearly a month and a half of frequent burns near Bend, the Forest decided to focus on the more remote Pine Mountain RX in early May to alleviate the smoke impacts on the airsheds surrounding populous communities. This project was the forest's 31st RX operation of the season and the district's 15th, and it aimed to accomplish 2008 acres across all five blocks: 332 acres in Block 3A, 186 acres in Block 3B, 141 acres in Block 3C, 369 acres in Block 4, and 980 acres in Block 5. The Forest had not experienced a declared wildfire since the 2008 Wizard Fire.

Project Area Location & Description

The Pine Mountain RX project area is located on the Bend-Fort Rock Ranger District of the Deschutes National Forest, approximately 35 miles southeast of Bend, OR. Block 3B, where the escape occurred, is one of several units within the Pine Mountain RX area located on Forest Service lands and adjacent to Bureau of Land Management and private land. The project area ranges in elevation from 4800 to 6493 feet with an average slope of 20-30% and the landscape is partially open ponderosa pine canopy with base canopy heights ranging from 5 to 20 feet with an understory of bitterbrush and juniper. Many of the units in the area were commercially harvested in 2013 and followed up with pre-commercial thinning treatments and subsequent pile burns.



Figure 1: project area location map

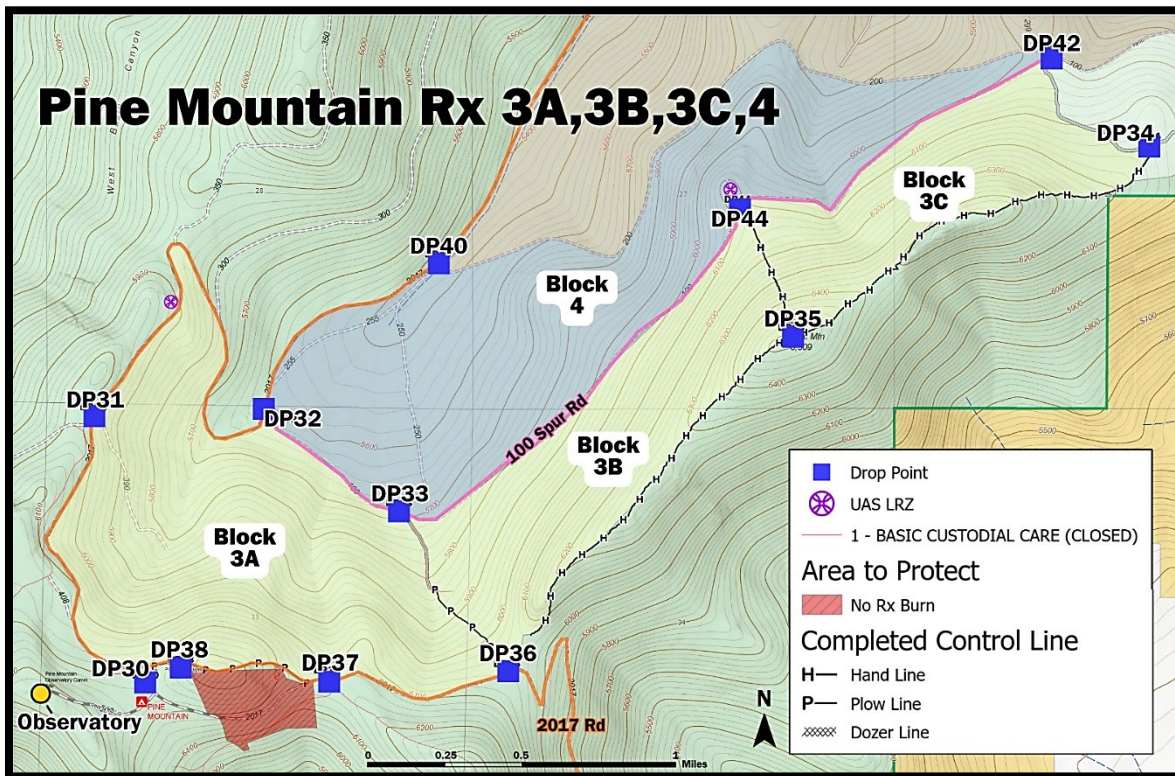


Figure 2: project area map with key features

Prescribed Fire Objectives

Direct excerpt from Element 5 of Pine Mountain Burn Plan:

Treatment objectives are to reduce natural fuels to protect wildlife habitat from future wildfires and to retain vegetation at biologically sustainable levels. Intent is to reduce rate of spread, flame length and fire behavior potential by removing surface and ladder fuels by reintroducing fire to the landscape. This project would treat fuels such that it would aid fire suppression forces in the event of a wildfire and to reintroduce fire to a naturally fire adapted old growth forest ecosystem.

Vegetation and Fuels

Direct excerpts from Element 5 of Pine Mountain Burn Plan:

Fuels consist of mature over story ponderosa pine with understory of ponderosa regen and a few pockets of Juniper in blocks 2 and 3. Some isolated clumps of heavy tree regeneration is found in all the blocks. Ground fuels are predominantly bitterbrush and isolated clumps of manzanita averaging 2 feet tall. Areas of sparse fuels are isolated and scattered through the project area.

Adjacent fuels consist of open sage brush and mature juniper over story. Bitterbrush and manzanita average 2+ feet and is present throughout the landscape. Surrounding all of the blocks is desert fringe, sage brush flats with isolated mature ponderosa pine scattered throughout the landscape.

Prescribed Fire Prescription

Direct excerpts from Element 7 of Pine Mountain Burn Plan:

Prescription range is based on predicted fire behavior in adjacent areas, project objectives, and local knowledge. When burning under higher fuel moistures, mid-flame winds greater than 6 mph (20 mph 20' winds) will still meet objectives. Project implementation will be reassessed when any of the weather or fuels elements are outside the prescription range.

An average of 4 foot flame lengths will best meet unit objectives and flame lengths less than 6 feet will minimize bole scorch. The most likely firing technique will be strip/head fire; as strips transition to a backing fire, lower flame lengths can be expected across much of the unit. Controlling fire behavior and flame lengths will be achieved with a firing plan and organized ignition operation that utilizes lighting sequences and patterns which generate low to moderate fire behavior. A variety of ignition tools may be used to complete ignitions.

High scorch and mortality rates are closely tied to the amount of brush (SH2) and live fuel moisture. To meet scorch constraints (less than 1/3 height of tree in MA9, scenic views and less

than ½ in general forest) and minimize mortality of the over story, in areas of heavy brush firing techniques will need to be adjusted to minimize intensities.

Prescribed Fire Outcomes

Within project boundaries of Blocks 3A and 3B, the prescribed fire yielded the anticipated results and achieved established objectives during implementation with excellent fire effects observed. Outside of the project boundary, some negative short-term outcomes were identified, such as limitation of public access and the unplanned burning of deer winter range, sage grouse habitat, and some grazing allotments. However, no loss of infrastructure or property improvements occurred, no injuries were reported, and Burned Area Emergency Response (BAER) soil surveys indicated that fire effects within the escape perimeter resulted in low to moderate impact.

Outcome or Consequences Leading to Declaration Decision

Direct excerpt from Element 18 of Pine Mountain Burn Plan:

The prescribed fire, or a portion or segment of the prescribed fire, must be declared a wildfire if either or both of the following criteria are met:

1. Prescription parameters are exceeded and holding and contingency actions cannot secure the fire by the end of the next burning period; or,
2. 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 or Agency Administrator.

Additionally, during meetings between Agency Administrators and forest leadership, it was determined that costs exceeding RX capacity could also potentially result in a wildfire declaration. Ultimately, the fire's spread outside of the planned project boundary was the primary driver of its declaration on the afternoon of May 7 as the previously identified trigger points were considered met or imminent and the forecast called for continued hot, dry, and windy conditions.

Environmental Conditions

Over the winter, the Upper Deschutes-Crooked River Watershed received approximately 6% of average snow depth, and historically low snow water equivalent moisture and unseasonably warmer and dryer conditions elevated drought conditions through much of the spring into early May. Around the time of ignitions, the National Drought Monitor showed Pine Mountain within a D1 (Moderate) drought level.

National Fire Danger Rating indices trended above average and reached historical maximums during the late April and early May time frames: on May 7, the date of declaration, ERC-Y was at the 77th percentile and BI-Y was at the 71st percentile for the Monument FDRA. Weather observations at the Pine Mountain RAWS operated by the University of Oregon showed high daily temperatures ranging from mid to upper 60s, minimum relative humidity values of 15-30%, and wind speeds of 6-12 mph during the prescribed fire implementation phase from May 5 to May 7.

Narrative

Planning & Preparation (April 28 – May 4)

In late April, extended meteorological forecasts predicted increasingly hot and dry conditions at lower elevations near Bend, OR, and recent under-burn projects nearby had resulted in cumulative smoke impacts to the local airshed. As an alternative to additional projects in the immediate area, leadership identified Pine Mountain as a strong candidate for prescribed fire implementation due to its relatively remote location and higher elevation (approximately 6500' at its peak), where conditions were likely to remain within prescription parameters. In contrast to most of the recent RX project areas, Pine Mountain presented different fuel types and more complex topography such as saddles, exposed ridgelines, rocky outcroppings, and heavy timber pockets; recognizing that the project would require a larger organization than standard under-burns, the fire planners began coordinating resources that would be capable of operating independently of potential Initial Attack (IA) demands or other RX projects being implemented concurrently on neighboring districts.

Personnel began planning the Pine Mountain burn on April 28 following the successful completion of the Flank 1 RX near Bend. The initial drafted organization included hand crews for holding ridges, engines assigned to holding roads, water tenders for supply, and two UAS modules (UMODs) for ignitions – one from out of area and one

"Two is one and one is none."
-RXB2(t) re: UAS platforms

embedded in an Interagency Hotshot Crew (IHC), henceforth referred to as UMOD-1 and UMOD-2, respectively. Over the next several days, management conducted field scouting, assigned operational roles – including a qualified

Prescribed Fire Burn Boss Type 2 (RXB2), RXB2 trainee, firing boss, and holding boss – and established contact with the steward of the University of Oregon's nearby Pine Mountain Observatory to coordinate access and plan structure protection; Block 3A of the project area was identified as the highest priority unit due to its proximity to the Observatory. Preparative work was also completed to establish new plow lines in Block 5, refresh prior-year handlines, and ensure structure protection with defensive buffers around the Observatory. To monitor localized weather trends, a portable Kestrel weather station was deployed at Drop Point 42 (DP42) to capture observations more representative of mid-slope conditions than the Pine Mountain RAWs site, and an Incident Meteorologist (IMET) assigned to multiple projects in the area analyzed wind alignment across ridgelines and saddles. Potential medevac sites, contingency lines, problem features, briefing locations, and aerial ignition points were also mapped across all blocks.

On Monday, May 4, leadership conducted final field scouting to confirm operational boundaries and completed the 2A (Agency Administrator Ignition Authorization) process to secure authorization for the burn. Discussions with Agency Administrators covered the project overview, unit descriptions, concerns and mitigation measures, organizational structure, and weather and smoke forecasts. On the same day, UMOD-1 joined local leadership to scout the project area and the RXB2(t) was informed that a Notice to Airmen (NOTAM) had not been filed with the Federal Aviation Administration (FAA) for that date, so an extent flight could not be performed. While the unmanned aircraft pilots (UASPs) felt confident that connectivity could be maintained throughout the unit, it is worth noting that the absence of an extent flight meant that other critical elements were not completed, such as verifying map projections, confirming containment features, setting infrared (IR) imaging settings, identifying connection issues, and ensuring equipment functionality; additionally, UMOD-1 was planned to have two UAS platforms available for use, but the assigned backup aircraft had not been picked up from Redmond, OR.

Day 1 – Block 3A Ignitions (Tuesday, May 5)

At 06:43 on May 5, fireline leadership received an updated spot weather confirming that conditions remained favorable for ignitions. Resources began arriving at the staging area at 08:00 and an operational briefing was conducted at 08:45 with a clear leader's intent: the priority was safety and informed decision-making rather than accomplishing specific acreage, and success would be defined as safe completion and quality fire effects, even if only Block 3A was completed; defense of the Observatory was also emphasized, as many of its structural components are priceless and irreplaceable. At 09:12, dispatch documented that all resources had been briefed and were moving into place, and the Temporary Flight Restriction (TFR) required for safe aerial ignitions was activated at 09:15; the RXB2 trainee initiated a group text message thread at 09:22 with all necessary overhead and forest leadership to keep them informed and provide documentation of the day's events.

At 09:43, a test fire was initiated by hand at DP30 and observed fire behavior aligned with expectations: timber litter burned readily with low flame lengths, grass and lighter flashy fuels in shaded areas did not sustain spread,



Image 1: fire activity near the Observatory at 11:08 on 5/5

and fuels ignited but did not actively carry in exposed brush and rocky ridges despite breezy conditions. At 09:52, the test fire was declared successful and ignitions proceeded utilizing strip-head firing backing into light upslope winds. For the next few hours, crews worked on improving handline from DP44 to DP35 and blacklining along the 2017 FS road to secure the unit ahead of planned aerial ignitions.

At 13:09, UMOD-1 initiated aerial ignitions but almost immediately experienced connectivity issues causing the UAS to lose contact and halt firing operations; the aircraft was officially grounded at 13:28 due to malfunction, and UMOD-2 was reassigned from scouting and prep to aerial ignitions to maintain operational momentum. The RXB2(t) spoke with the first module about the malfunctions and was told that the time allotted that day for extent flights had instead been used to fix the Plastic Sphere Dispenser (PSD) machine, which had been stowed for the winter in suboptimal condition. UMOD-1 then left the mountain to obtain the second aircraft from Redmond and continue troubleshooting the malfunctioning machine.

"I positioned myself in place to observe fire behavior and saw the aircraft come into position. It hovered for a while, turned around and headed home. No spheres were dropped. I saw it come over again about 20 minutes later, hover, raise elevation, turn and head towards home, stop, come back into position, turn around, and head home without dropping any spheres."

-RXB2(t)

Blacklining had been halted near DP31 and downslope from DP36 during the UAS malfunctions but continued at 14:30 to maintain pace with fire behavior as winds picked up and aligned with a nearby saddle and increasingly erratic winds trended downslope near a hairpin turn in the 2017 FS road, the primary containment line. Two hours after the first UAS was grounded, UMOD-2 was able to successfully begin aerial ignitions at 15:28, but the delay had pushed blacklining operations later into the afternoon under warmer and windier conditions than originally intended. Shortly after, at 15:51, a camper notified dispatch of a fire near the 23rd Road, but RX personnel investigated the report and found no fire, and dispatch logged that all operations were within containment lines. At 17:33 that evening, Central Oregon Interagency Dispatch Center (COIDC) experienced communications issues from an unexpected Chief Information Office (CIO) software push and radio traffic had to be temporarily rerouted through the Eugene Interagency Communication Center (EICC).



Image 2: smoke conditions at 17:37 and 17:53 on 5/5

Ignitions on Block 3A were approximately 50% complete by 18:30, though blacklining progress had slowed near the hairpin turn and personnel were “battling winds on critical sections,” requiring a more deliberate firing pace. Burn leadership and the superintendents of all three assigned IHCs convened on the ridge to decide the operational plan for the next day, discussing four possible options: ceasing ignitions entirely, burning only Block 3B, burning both 3B and 3C, or burning 3B and the western portion of Block 4. After considering weather forecasts, observed fire behavior, ridgeline conditions, and prep quality, the group felt a high degree of confidence in the following day’s operations and decided to begin ignitions in Block 3B on May 6, agreeing that they would continue assessing conditions in real time before expanding into Block 3C depending on progress.

At 19:29, aerial ignitions by UMOD-2 were completed on Block 3A and total ignition progress was reported at 85%. The UAS was reconfigured for infrared (IR) flights of the unit’s perimeter where it detected no heat outside of containment lines and was grounded at 19:55, and hand ignitions continued through an untreated fuel pocket near DP32 until ignitions were officially declared complete at 21:44. Non-essential resources had been released at 20:26, and after a final patrol around the Observatory confirmed that holding crews had established a 20’ buffer around the structures, all remaining resources departed and were out of service by 22:52. 332 acres were

completed with no spot fires observed, though open flame remained present in heavy fuels and the glow was visible from Highway 20.



Image 3: fire activity at 21:30 on 5/5

Day 2 – Block 3B Ignitions (Wednesday, May 6)

The next morning's operational shift began at 06:00 for the RXB2 and trainee, who updated necessary documentation and added the day's incoming Agency Administrator to the group text thread. At 08:00, the firing and holding bosses patrolled Block 3A and found that all lines had remained secure and fire effects were favorable. The morning briefing was held at 08:30, and dispatch confirmed that all resources were accounted for, briefed, and engaged by 09:11. To avoid interference from a neighboring district's RX operations, leadership adjusted the communications plan and changed radio channels for the day's operations. At 10:08, UMOD-2 conducted IR scans of Block 3A and confirmed that all lines were secure, and focus was then shifted to Block 3B; by this point, UMOD-1 had been reassigned to a different operation on another district.

Prior to ignitions, the firing boss raised some concerns about burning through a heavily timbered saddle between DP35 and DP36, which featured dense timber pockets and heavy downed fuels, presenting potential for elevated fire behavior and holding complications. However, a 10:30 meeting between fireline leadership and a physical scout of the area determined that a slow and deliberate ignition pace could mitigate those risks, and a test fire was initiated on the ridgeline at 10:40. Dry brush was resistant to spread despite breezy conditions and fire behavior intensity remained low, and ignitions commenced after the test fire



Image 4: test fire ignitions at 11:00 on 5/6

was declared successful at 11:07. One IHC began blacklining from DP35 to DP36 while another blacklined down the flank from DP35 to DP44, with aerial ignitions by UMOD-2 planned for the interior. Since the steep side-hill slope above DP36 was inaccessible for vehicles, a hoselay supported by a T3 engine and T2 water tender had been established to provide water 1500' up to the ridgeline where more crews were holding.

At 11:47, as the afternoon heat and winds started to increase on exposed ridgetops, mid-flame wind speeds exceeded the 6mph prescription threshold and prompted a subsequent discussion on the AA group text thread. However, winds remained within prescription in the sheltered timber lower on the slope and the scabby ridgeline fuels maintained acceptable fire effects, so leadership determined that operations could continue and holding concerns could be mitigated using deliberate tempo, scale, and pace.

By 13:17, the blackline operation on Block 3B had reached 50% completion and adjacent Block 3A continued holding with intact lines, smoldering heavy fuels, and light smoke. Within 3B, isolated torching and increased consumption of extremely dry, heavy fuels were observed, and the first spot fire – approximately 20x40' and attributed to a smoldering stump – emerged adjacent to a handline at 14:35 and was quickly engaged and suppressed; another 10x10' fire was also identified and rapidly contained. Increasingly heavy smoke and deteriorating visibility led to the reconfiguration of the UAS module to IR detection flights to identify any small “duffers” (small smoldering spot fires) along the line that might not be visible to firefighters on the ground due to the thick smoke; by the end of the day, this process identified eight duffers “no larger than a can of chew,” or approximately 2.5” around. Near DP36, technical rocky and brushy terrain had slowed ignition progress. By 14:41, fine dead fuel moistures had reached the lower prescription limit of 5%, but fire effects were still considered favorable.

“It was so smoky that I couldn’t see the spot right next to me.”

-Squad Leader

At 17:02, blacklining efforts were nearly complete and UMOD-2 initiated aerial ignitions to fill the interior of the unit, where the fuel type transitioned from open timber with a grassy understory to dense timber pockets with heavy dead and downed fuels. There was some miscommunication regarding the amount of fire that should be applied, and while only two passes of firing were anticipated by the FIRB, the drone executed five passes that resulted in increased fire behavior. Following the aerial ignitions, spotting activity near DP35 increased and multiple spot fires were identified around 17:53, with the largest estimated at approximately one quarter of an acre; ignitions were temporarily paused while holding resources secured the spot fires and the UAS platform was reconfigured back to IR reconnaissance.

At 19:00, a critical holding discussion occurred on the ridge among burn leadership. Operations had slowed due to smoke and holding difficulty, and personnel estimated that it would take approximately three additional hours of firing to bring the fire safely down to the holding road. Two options were evaluated during the meeting: finish ignitions that night or hang up the fire edge and continue ignitions the following morning. IR flights showed no additional heat outside of containment lines other than the known spots that had been successfully contained and fire behavior and environmental conditions remained moderate, so it was decided that the unit would be completed to containment lines that evening. There was some discussion of spiking crews out overnight, but leadership ultimately elected to release personnel to Bend for the evening to avoid subjecting staff to further exposure to dense smoke, fatigue from long operational periods, and hazardous terrain. It was expected that nighttime temperatures and humidity would help to further moderate fire behavior until crews returned, though overnight forecasts had not been requested in the spot weather forecasts.

Aerial ignitions resumed at 20:00 and total ignitions were 50% complete by 20:17 as resources deemed non-essential by overhead were released. At 20:40, a 40x100' spot fire was identified approximately 400' downslope from DP35 and aerial ignitions ceased and once again shifted to IR operations. The spot was attributed to embers from a 30" diameter-at-breast-height (DBH) burning snag within 100' of the handline, and the holding boss and an IHC captain agreed that falling the snag would be excessively hazardous since the sun had set and medevac would be difficult in the steep terrain. The spot was considered manageable and additional IR flights did not identify further heat beyond containment; IR operations ended at 21:26 when the TFR expired.

Hand ignitions along the 100 spur road were initiated at 21:00 to complete the unit and ignitions were declared officially complete at 22:11; all resources were released and out of service in Bend by 23:10. 186 acres were accomplished within Block 3B and a total of four spot fires and eight "duffers" had been secured.

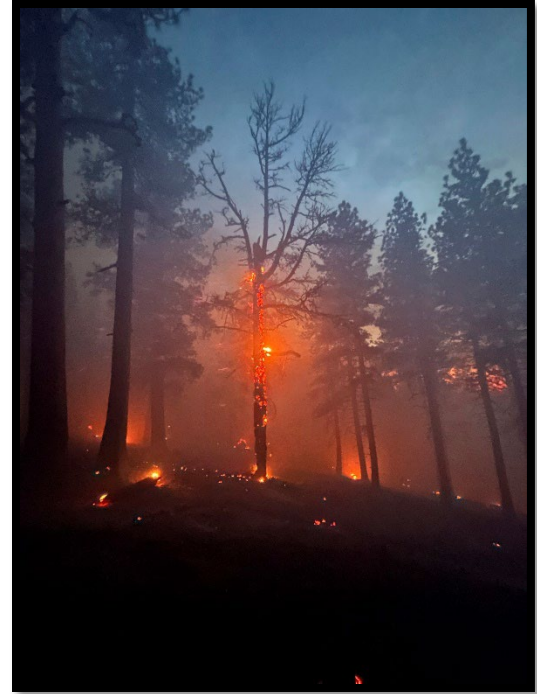


Image 5: burning snag at 21:44 on 5/6

Day 3 – Block 3B Escape & Conversion (Thursday, May 7)

At 06:00 on May 7, the burn boss and trainee departed Bend for Pine Mountain. Conditions were described as "calm at first light," and the operational focus shifted to holding and mop-up. However, the burn bosses discovered during initial patrols that the fire had crossed containment lines overnight. At 07:15, two 5-acre spot fires were identified: one near the saddle between DP35 and DP36 exhibiting minimal fire activity, and another near DP36 that had burned over the previous day's hoselay and was currently burning with a 50% active perimeter. The RXB2 subsequently reassigned overhead, instructing the FIRB to manage the spot fires and the holding boss to manage the remaining units, and also notified dispatch and leadership of the confirmed slop-overs.

At 07:45, the contracted contingency dozer began moving toward DP35 and one of the local hand crews assigned to the project arrived and moved directly to DP36, where they were joined by an IHC at 08:25; these resources (in addition to a second IHC, a district engine, and a contracted water tender) were directed to skip the main briefing and were instead given a quick size up briefing and instructions to engage the slop-overs.

As the RXB2(t) was heading from DP36 to the briefing location, he encountered a group of Fire Effects Monitor (FEMOs) from a Prescribed Fire Training Exchange (TREX) crew assigned to the burn and requested that they document the events of the shift as record keepers. The morning briefing was conducted at 08:30 and leadership shared the day's operational plan as "hold what we have and aggressively attack slop-overs." During the briefing, resources were reassigned into three "functional areas" using a thoughtful application of Incident Command System (ICS) principles to organize resources and geographic areas with priorities, objectives, and identified radio channels. The RXB2(t) noted that he was hesitant to refer to these "functional areas" as divisions because it would

sound too similar to a wildfire rather than a planned event, but a combination of the NWCG briefing checklist and prescribed fire burn plan element 10 were used to deliver the briefing. Following the briefing, at 09:00, leadership discussed potential aviation resource needs and coordinated the gathering of water-handling supplies from the local cache.

At 09:30, a spot fire roughly 300' below the line and moving upslope was identified, but crews believed it could be contained. By 10:30, multiple spots were observed; fire activity was active with single and group-tree torching being pushed by a sustained northerly wind, and spotting was occurring approximately a quarter of a mile downslope. Crews on the DP36 slop-over were experiencing torching and uphill runs from spot fires and were pulled back to the black in case the fire made a slope reversal toward their escape route, the 2017 Road. Additional hose was requested at the same time, as firefighters were having a difficult time keeping water flowing while deploying hose packs from the 2017 Road switchback.



Image 6: view of smoke at 11:15 on 5/7

At 10:45, Single Engine Air Tankers (SEATs) were requested for the heel of the fire. By 11:00, the lower spot fire – then estimated at approximately 15 acres – was actively backing and spotting downslope, and the dozer was pulled back due to the difficulty and steepness of the slope. The fire was estimated to be within 100-150' of the 2017 Road, the main containment line, and crews estimated they had a “50/50 chance” of holding it.

Simultaneously, forest leadership and AAs conducted a meeting to discuss fire activity status updates and conversion trigger points: 1) Fire escaping the project area; 2) Inability to contain the fire within 24 hours; and/or 3) costs exceeding RX capabilities. The meeting

resulted in direction to continue ordering resources as needed while remaining under RX management for the time being, with a plan to reassess later in the operational period at 14:30.

A Type 1 helicopter was ordered at 10:13, and shortly after, defensive firing along the 2017 Road was planned and the ICS structure was again updated and operational objectives established: protect the Pine Mountain Observatory, keep the fire east of the 2017 Road, and keep the fire south of Block 3. The fire then made a hard push toward the 2017 Road and crews disengaged. At noon, additional contingency resources were ordered and heavy tankers were requested, crews reassessed defensive needs for protection of the Observatory, and as the fire pushed below the switchback in the 2017 Road, defensive firing was initiated. The fire likely crossed the road at 12:07, and divisions were officially assigned.

*“The wind was ripping up on the ridge,
and the smoke impact was unreal.”*

-Firefighter

At 12:10, dozer operations were refocused around DP35 and one IHC was shifted from line construction to structure protection at the Observatory. At this point, it was believed that the fire had progressed east of the ridge, and requests were submitted for an additional crew, one mile of hose, and fold-a-tanks. By 12:38, the fire was approximately 300' below DP37 and approaching the Observatory; by 13:00, it was within 1.5 miles of DP34.

More resources were requested to include two dozers, three crews, several Type 4 engines, and six Type 6 engines. The Type 1 helicopter that had been requested earlier was approximately 35 miles out, and more aircraft – two large airtankers (LATs), a Fixed Wing Aerial Supervision Module (FASM), and addition resources from the southwest region – were mobilized.

At 13:16, the Oregon Department of Forestry (ODF) contacted the COFMS Duty Officer to ask if the RX had been declared a wildfire and were advised that it had not yet been formally declared. By 13:34, the fire was estimated to have grown to 500 acres outside of the unit boundary and the trigger points for conversion were considered met or imminent. External partners were notified, an ad hoc Central Oregon Type 3 Incident Management Team began rostering, and dispatch began sourcing engines for night shift operations. At 13:45, the fire progressed past the DP35 ridge and toward DP34, where an IHC was prepping the ridge toward the fire scar of the 2024 Pine Fire, which it reached at 14:00.

The 14:30 meeting that was planned for AA and leadership reassessment occurred as scheduled and conversion was discussed. All trigger points had been met or were imminent and forecasts reported by the IMET called for continued hot, dry, and windy conditions, so conversion to wildfire was deemed appropriate. The Public Affairs Officer (PAO) requested that the Forest temporarily maintain the RX status so that public messaging could be coordinated before the declaration was entered into WildCAD, which would trigger automatic notifications through Watch Duty and other public tracking applications ahead of official alerts.



Image 7: view of fire at 15:26 on 5/7

The burn boss authority was transferred from the RXB2 to the district Fire Management Officer (FMO) as ICT3 at 15:24, and the Pine Mountain RX was officially declared a wildfire and converted to the Pine Mountain Fire at 16:06. The Central Oregon Type 3 IMT took command of the fire at 06:00 on May 8.

Based on fire pattern indicators, the fire's origin was determined to be a decaying log approximately 41 feet from the perimeter of Block 3B that spread in a northeasterly pattern through the understory. The fire burned across 1091 acres of Forest Service, 1174 acres of Bureau of Land Management, and 303 acres of privately owned land for a total of 2568 acres; no structures or property were damaged, and no injuries were reported by either responders or members of the public. The Pine Mountain wildfire was declared fully contained at 10:03 on May 18, 2026.

Conclusion

The Bend-Fort Rock Ranger District implemented its Pine Mountain Prescribed Fire under dry but favorable conditions as a strategic and proactive effort to further its robust fuels reduction efforts and mitigate smoke impacts to populous communities. The experienced local organization was supported by interagency resources and despite equipment malfunctions, Block 3A – the highest priority unit – was successfully completed on May 5, effectively establishing a defensive buffer around the Pine Mountain Observatory. Block 3B was ignited on May 6 and exhibited acceptable fire effects, but unexpectedly strong winds paired with warm temperatures and moderate RH recovery overnight resulted in numerous spot fires that eventually exceeded containment capabilities, resulting in a wildfire declaration.

The review team identified some inconsistencies between the burn plan, policy, and actions taken during implementation, but the primary factors directly contributing to the subsequent wildfire declaration, as identified by the review team, were a complexity analysis that did not fully represent the technicality of the project area, equipment malfunctions with the first UAS platform leading to firing operations in the peak heat and wind of the afternoon, insufficient water resources, and persistent drought. However, despite the escape, overall positive outcomes reflect the professionalism and resilience of the RX personnel and leadership: no injuries were sustained, the culturally priceless Pine Mountain Observatory was successfully protected from any damage, and post-fire BAER soil surveys indicate that fire effects resulted in low to moderate impacts. The Bend-Fort Rock Ranger District and Deschutes National Forest were actively and constructively engaged in the review of this incident and approached it as a learning and program-building experience.

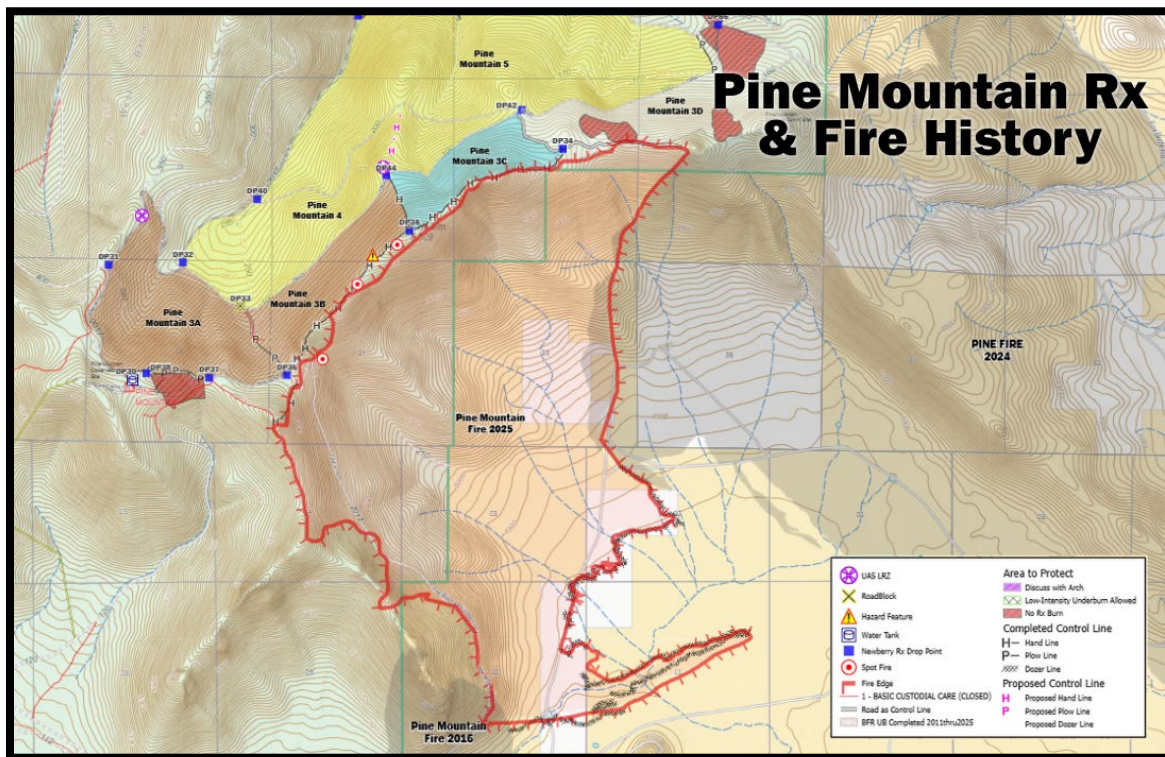


Figure 3: map of project area and fire footprint

Lessons Learned

Lessons Learned by Participants

1. Mechanical issues with critical equipment can delay operations and inhibit efficiency. Equipment should be thoroughly tested prior to the day of ignition. Additionally, out-of-area or contracted resources should be intentionally paired with local resources familiar with project and unit procedures to ensure smooth operations, as they may require additional briefing, supervision, or time to integrate.
2. High-functioning, cohesive organizations with strong trust and historical success can be susceptible to overconfidence and a reluctance to pivot or disengage when conditions deteriorate.
3. Ensure that plans accurately reflect planned actions, needs, and tactics. Additionally, anticipate potential availability limitations and ensure that all elements of the plan can be implemented by out-of-area resources if necessary.
4. Project complexity should give equal weight to all elements of the rating including safety and risk management, technical difficulty, values at risk, fire behavior, resistance to containment, ignition methods, fire duration, organizational scale, and potential constraints.
5. Burn planning and implementation should be dictated by observed conditions rather than calendar dates or historical windows. Additionally, spot weather forecasts should be requested for full 24hr periods to avoid gaps in forecast data when relying on overnight temperatures and humidity for recovery.

Lessons Learned by Review Team

1. All components of the prescribed fire plan must be fully actionable and realistic for the specific unit. Consequently, any measure included within the plan is considered a mandatory requirement for completion and can inadvertently lead to noncompliance if not followed.
2. The utilization of group text messages or chats can provide immediate and chronological documentation of critical information to a wide audience. Additionally, assigning a designated documentarian when activity is increasing can ensure that important times, events, and decisions are recorded in case of a post-incident review process.
3. Use of programs such as Field Maps and Avenza can significantly enhance operational awareness during prescribed fire operations and potential wildfire response, especially when integrating relevant layers such as uncontained fire edges with real-time updates.
4. Modern fire-tracking platforms such as Watch Duty utilize data from dispatch systems like WildCAD in near real time. Public Affairs/Information Officers should maintain awareness of these platforms and plan to coordinate official messaging prior to public alerts to maintain narrative control and community trust.
5. Utilizing positions like an Incident Meteorologist (IMET) or Prescribed Fire Manager (RXMG) can provide valuable support across projects, contribute to success, and help to relieve the workload of operational staff while maintaining situational awareness and smooth coordination for all personnel.

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

Seasonal Severity

Data from Snow Telemetry (SNOTEL) sites within the Upper Deschutes-Crooked River Watershed in central Oregon indicated that snow water equivalent was well below the historical median throughout the winter months and into spring. On the first date of ignitions, May 5, the snow water equivalent for all stations within the watershed was only 5% of the 30-year median (1991-2020) for 2026 (figure 4), reaching historic lows the week of ignitions (figure 5).

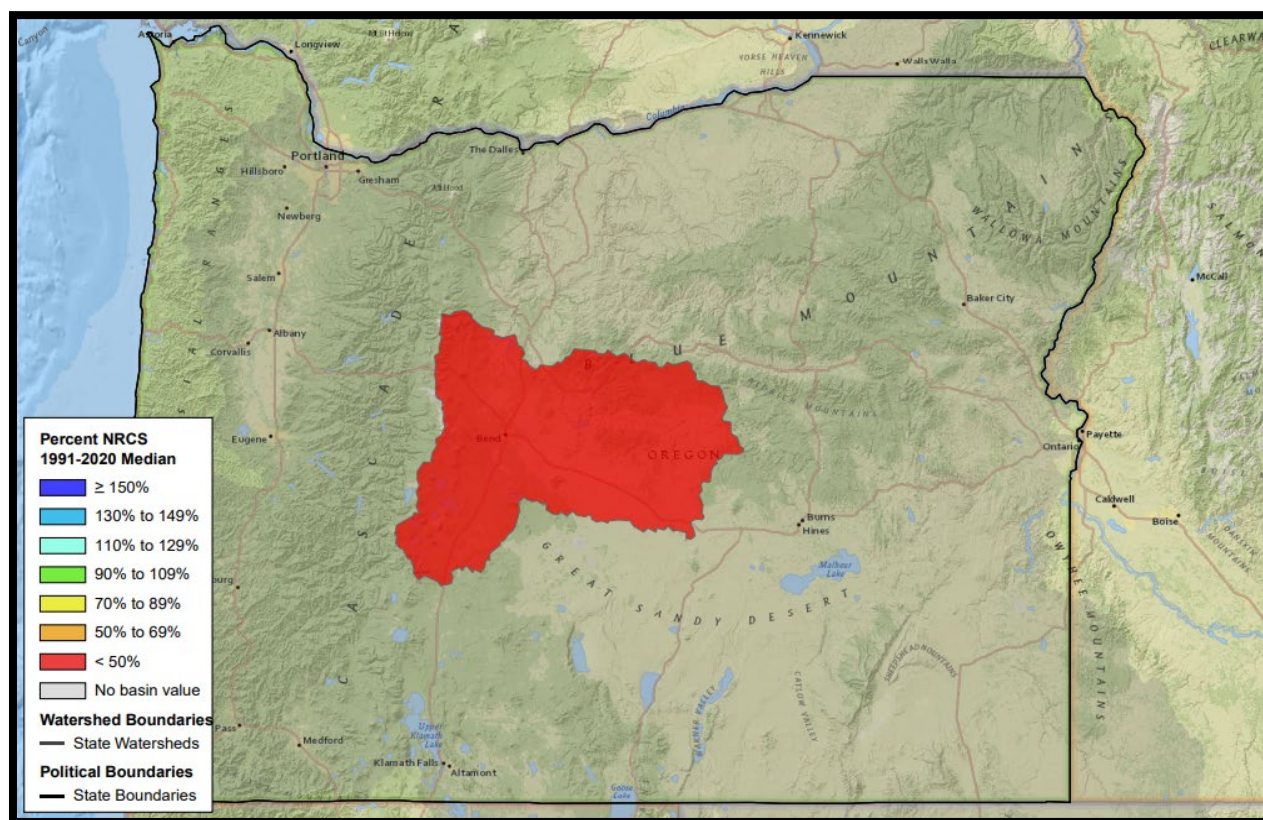


Figure 4: snow water equivalent percent on 5/5

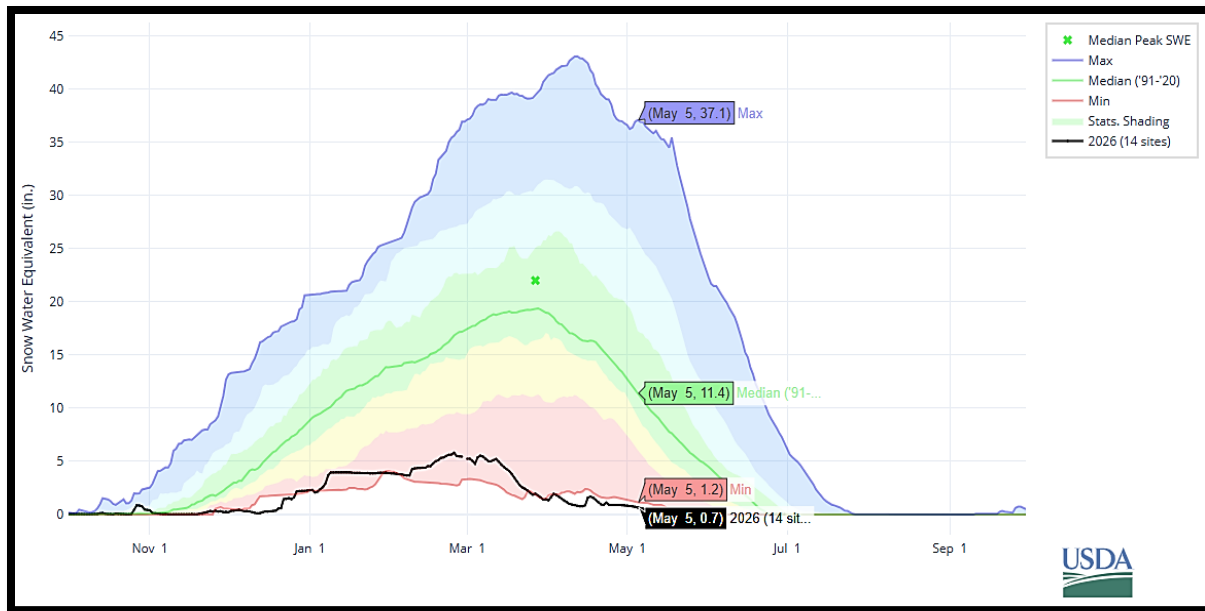


Figure 5: snow water equivalent for 5/5 compared to 30-year minimum, median, and maximum

The U.S. Seasonal Drought Outlook released on April 30 predicted persistent drought for the Pine Mountain area of the Deschutes National Forest through July (figure 6), and the US Drought Monitor map of Oregon for May 5

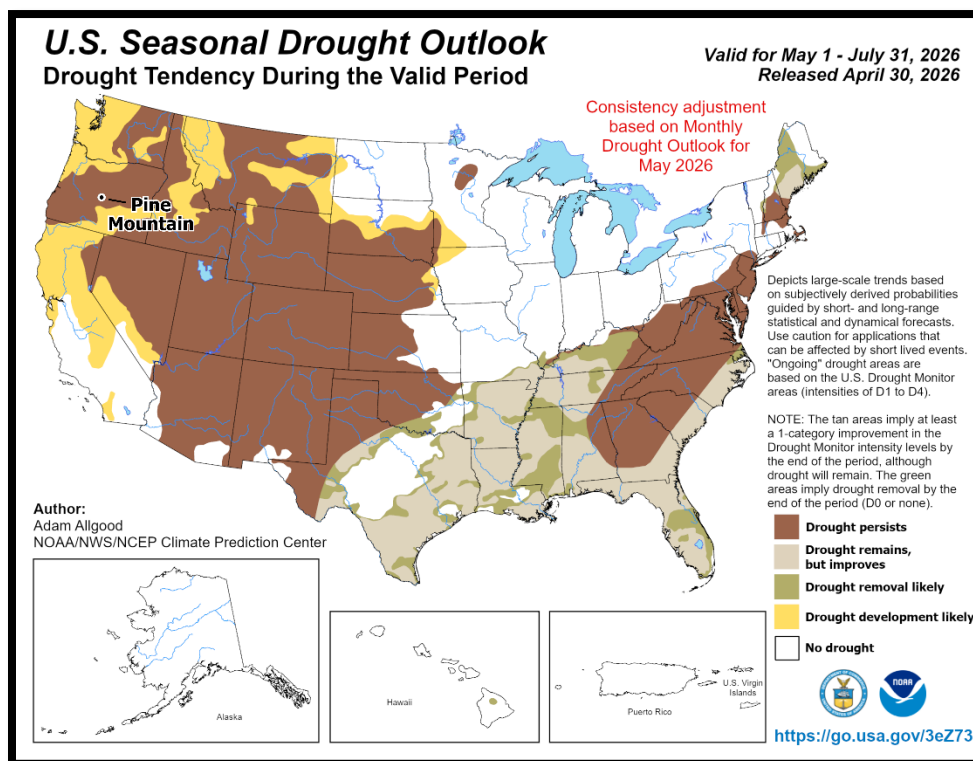


Figure 6: seasonal drought outlook for May 2026

indicated that all of Deschutes County was experiencing moderate (D1) to severe (D2) drought conditions (figure 7).

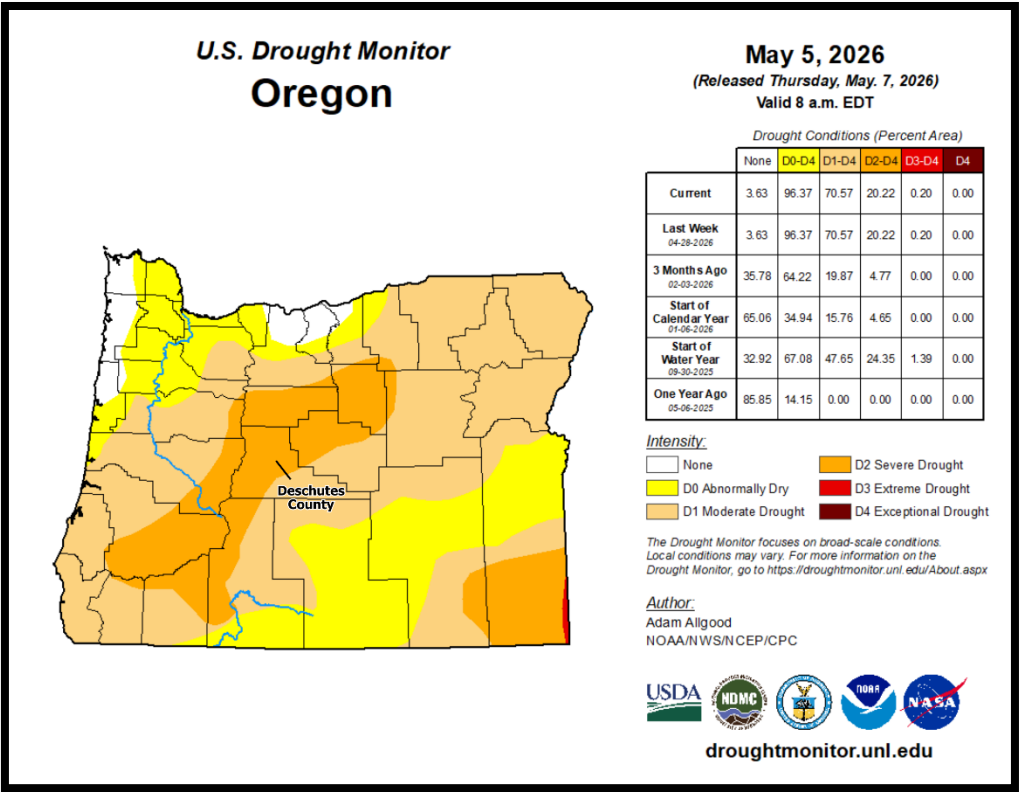


Figure 7: drought conditions in OR on 5/5

Fire Danger Indices

The Pine Mountain RX area is located within the Northwest Predictive Services area NW07 & Monument FDRA (Central Oregon FDOP). The Energy Release Component (ERC) for the first day of ignition, May 5, was in the 77th percentile and Burning Index (BI) was in the 71st percentile for the Monument Fire Danger Rating Area (FDRA). Indices subsequently trended upward over the following 7 days, reaching levels well above average for the time of year. Both ERC (figure 8) and BI (figure 9) values were approaching historical maximum values by May 7. Additionally, 100hr (figure 10) and 1000hr (figure 11) dead fuel moistures trended well below the <12% average for the time of year.

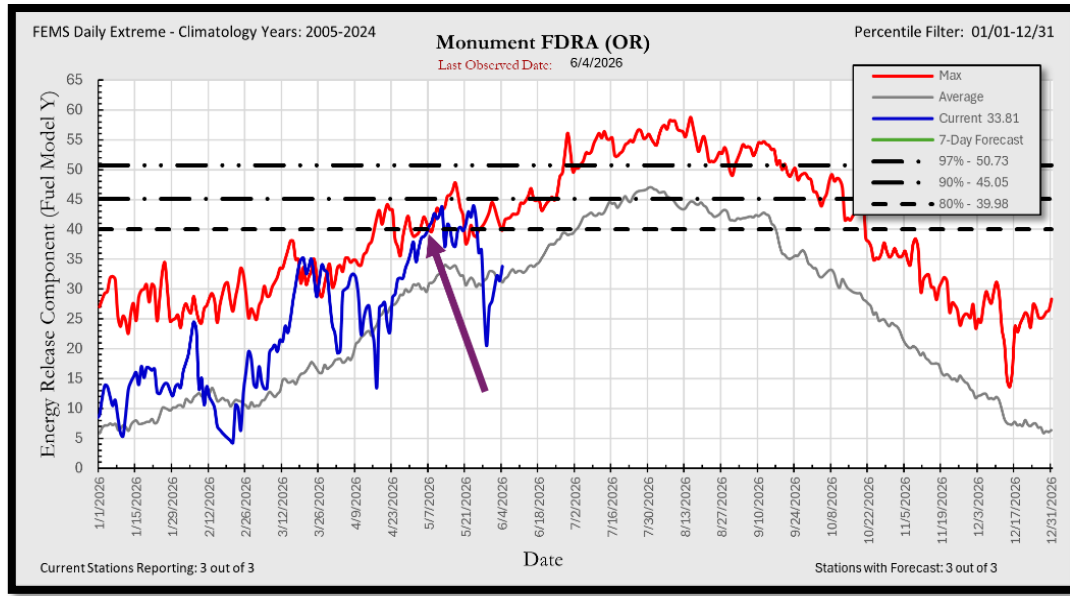


Figure 8: ERC for Monument FDRA

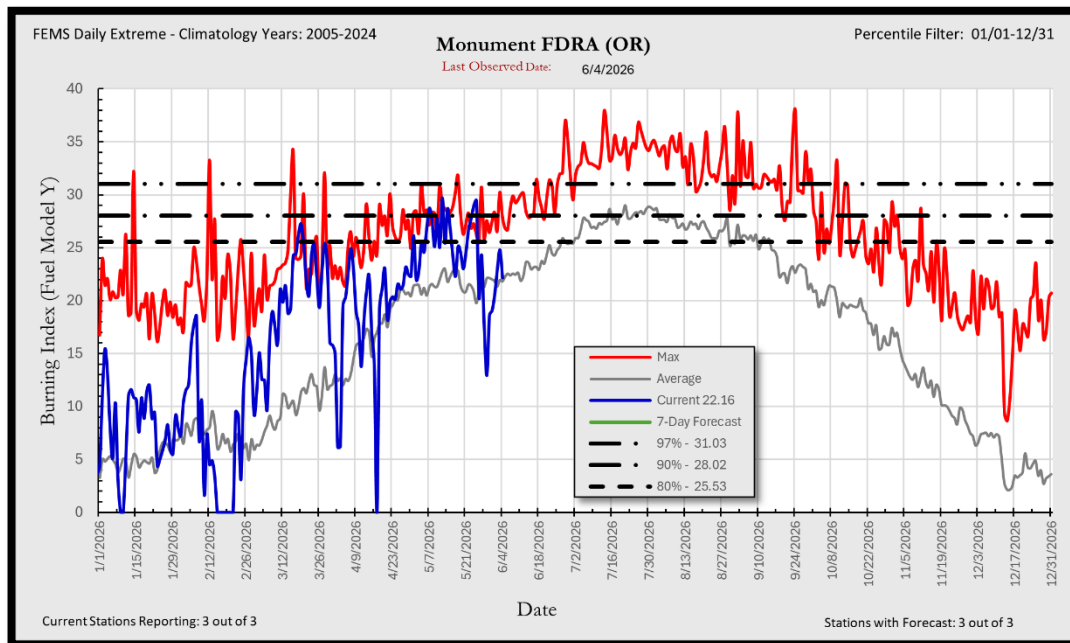


Figure 9: BI for Monument FDRA

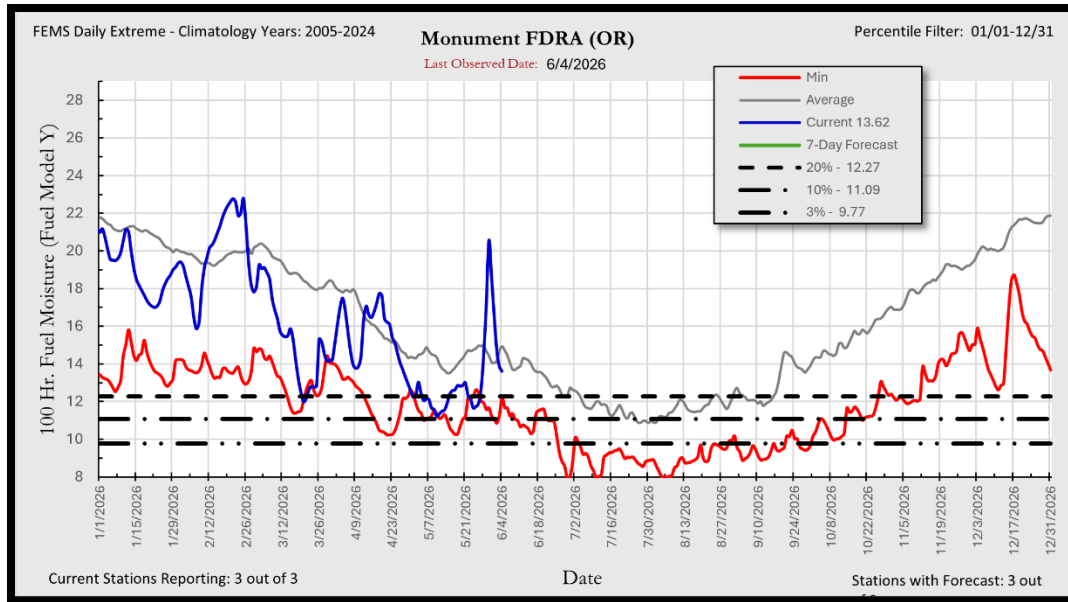


Figure 10: 100hr fuel moisture for Monument FDRA

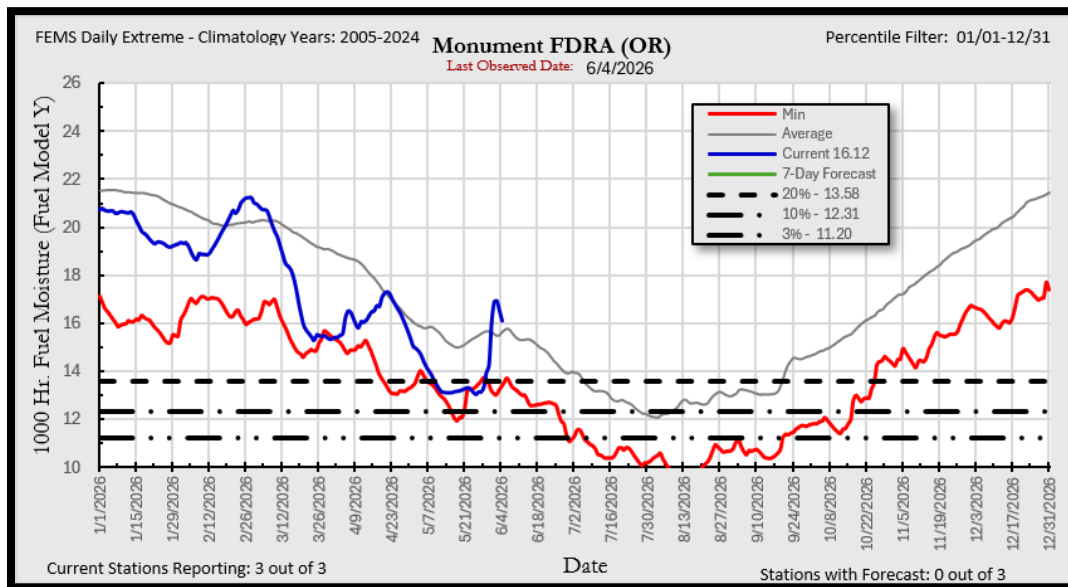


Figure 11: 1000hr fuel moisture for Monument FDRA

Weather

An on-site IMET was available before and during implementation. Below is the updated Spot Weather Forecast (figure 12) for May 7, the date of declaration.

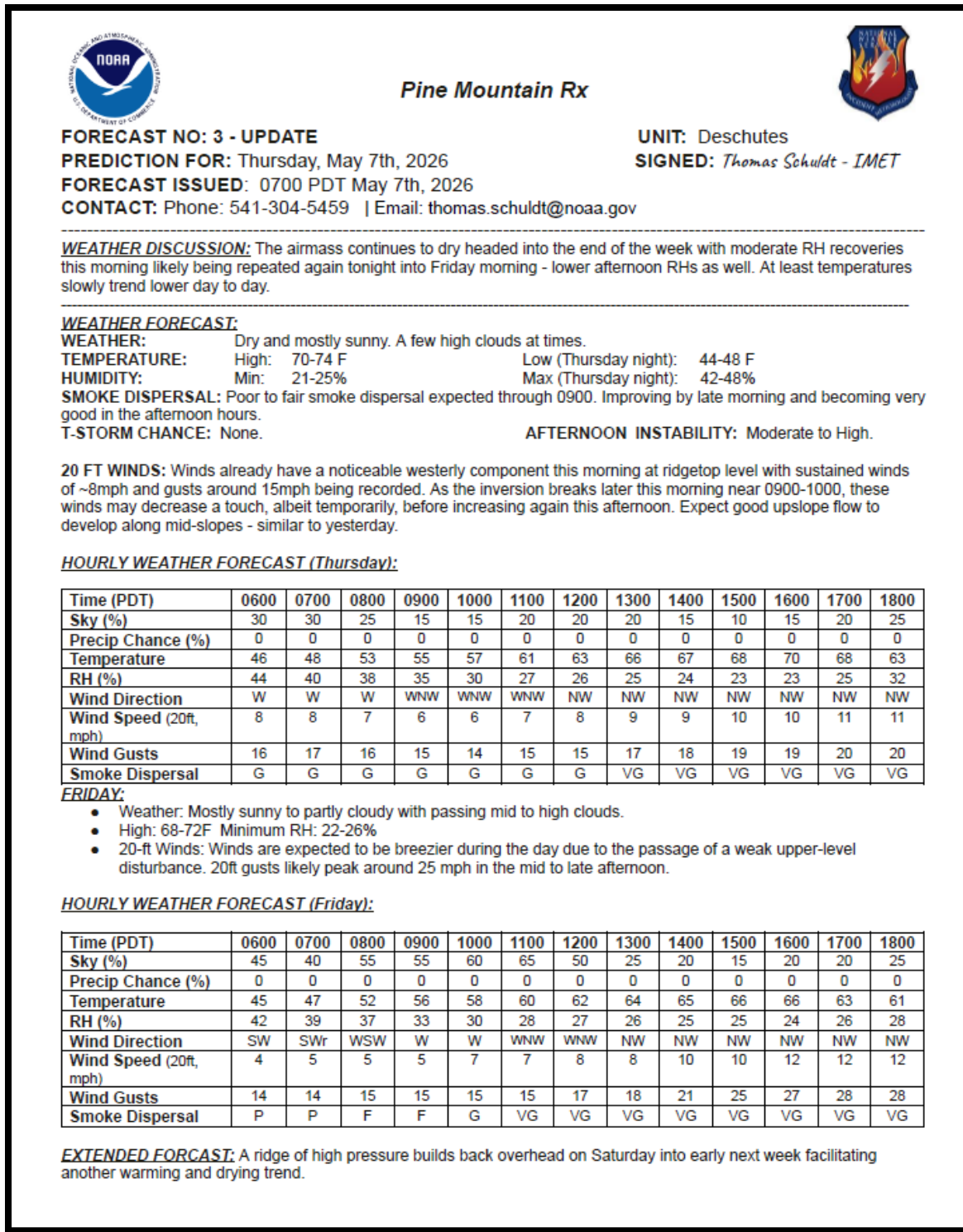


Figure 12: spot weather forecast for 5/7

Climate Prediction Center (CPC) Data

The National Weather Service (NWS) CPC’s 8- to 14-day outlooks issued on April 25 predicted below normal precipitation (figure 13) and temperature (figure 14) for the project area. This forecast was consistent with previous 2026 outlooks and suggested continued warm and dry conditions for May 2026.

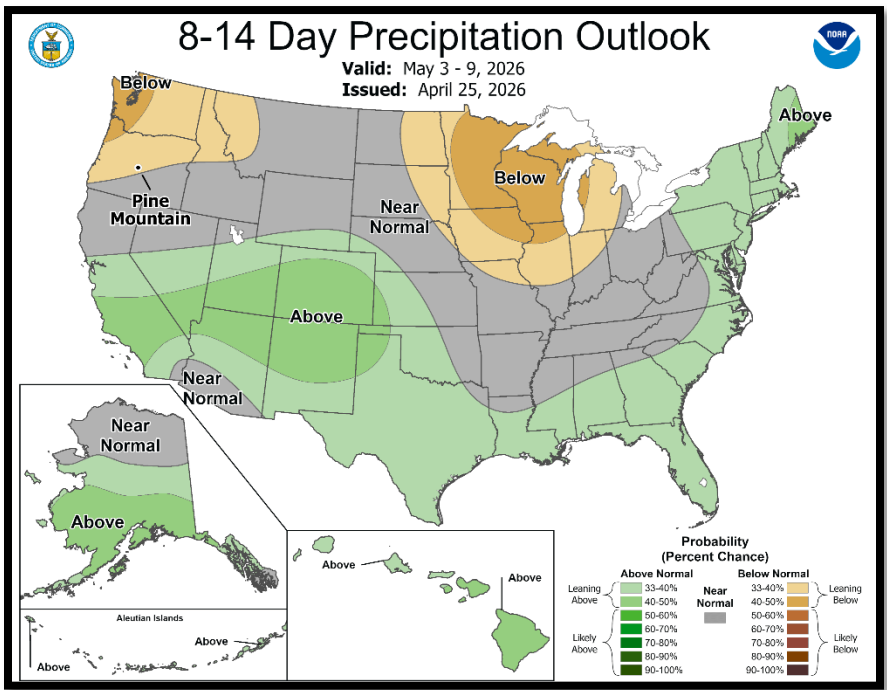


Figure 13: precipitation outlook for 5/3 - 5/9

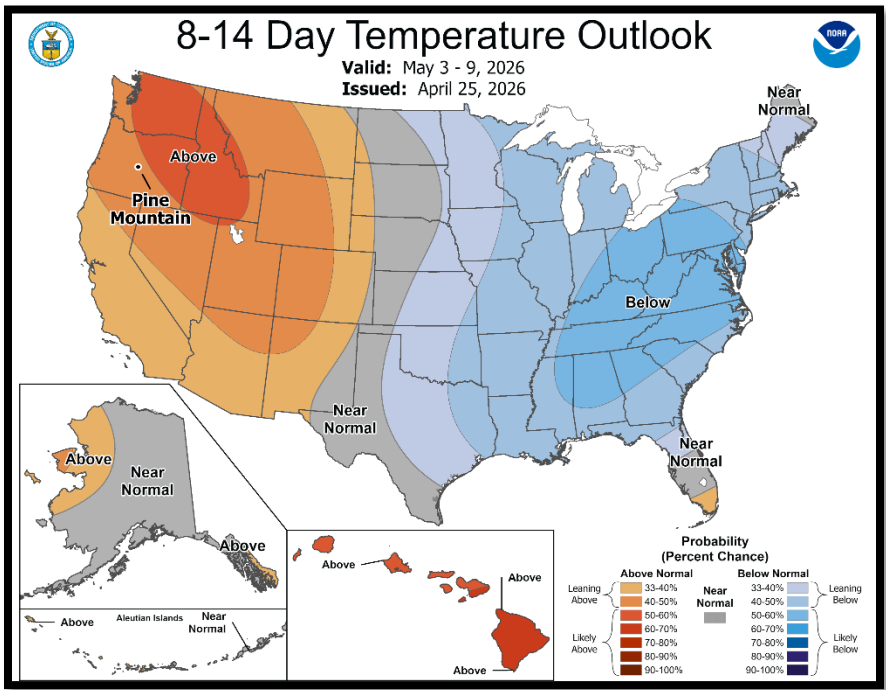


Figure 14: temperature outlook for 5/3 - 5/9

On-Site Weather Observations

The Pine Mountain RAWS recorded temperature and relative humidity (RH) (figure 15) as well as wind speed measurements (figure 16) leading up to the prescribed burn and during the transition to wildfire.

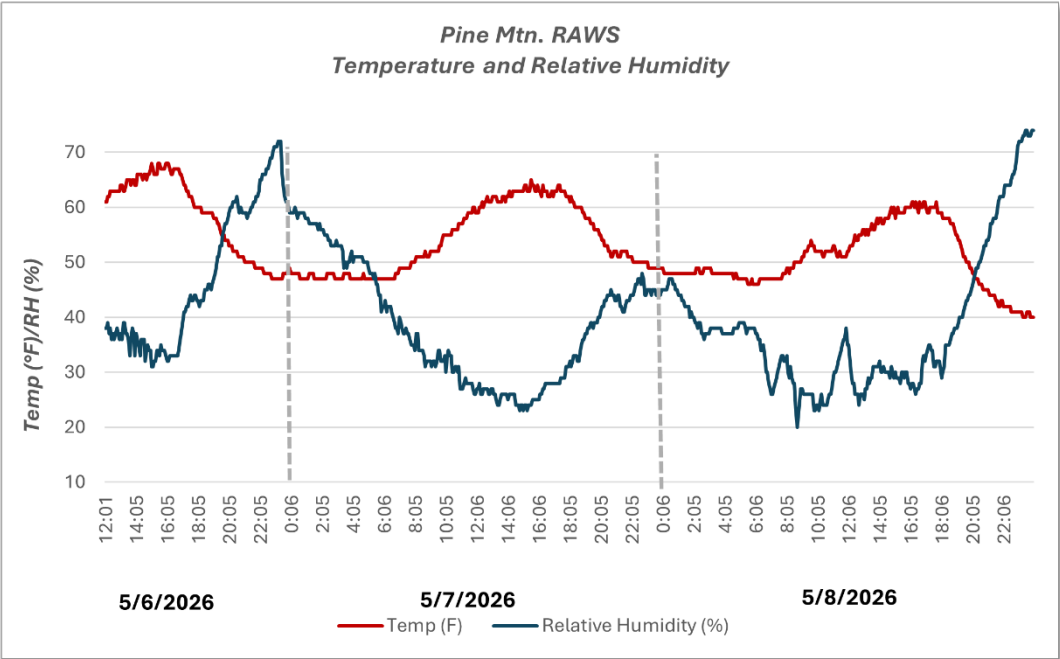


Figure 15: temperature and RH at Pine Mtn. RAWS

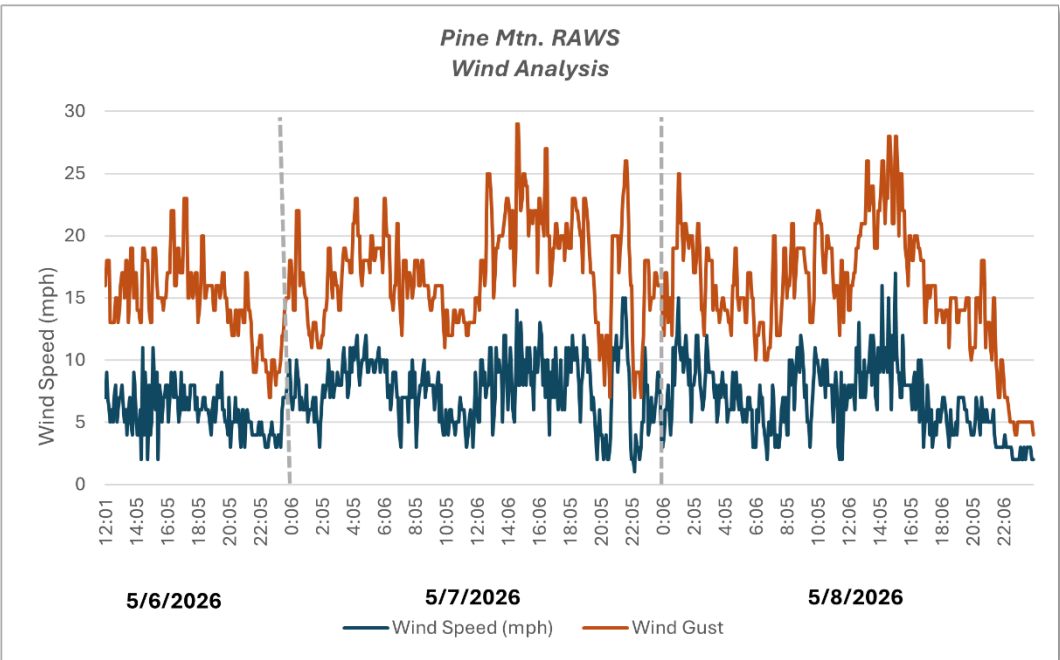


Figure 16: wind speeds at Pine Mtn. RAWS

On May 7, the date of declaration, the highest forecast wind speed was 11 MPH and the strongest gusts were expected to reach 20 MPH, but observed weather showed wind speeds of up to 15 MPH and gusts at approximately 29 MPH, exceeding forecasted conditions.

Precipitation from January 1 through May 4 showed an overall deficit from normal/average values at 71% of normal precipitation. The nearby TePee Draw RAWS accumulations (figure 17) indicate well below normal precipitation amounts in January, slightly above normal amounts in February, and slightly below normal amounts in the months of March and April leading up to the project.

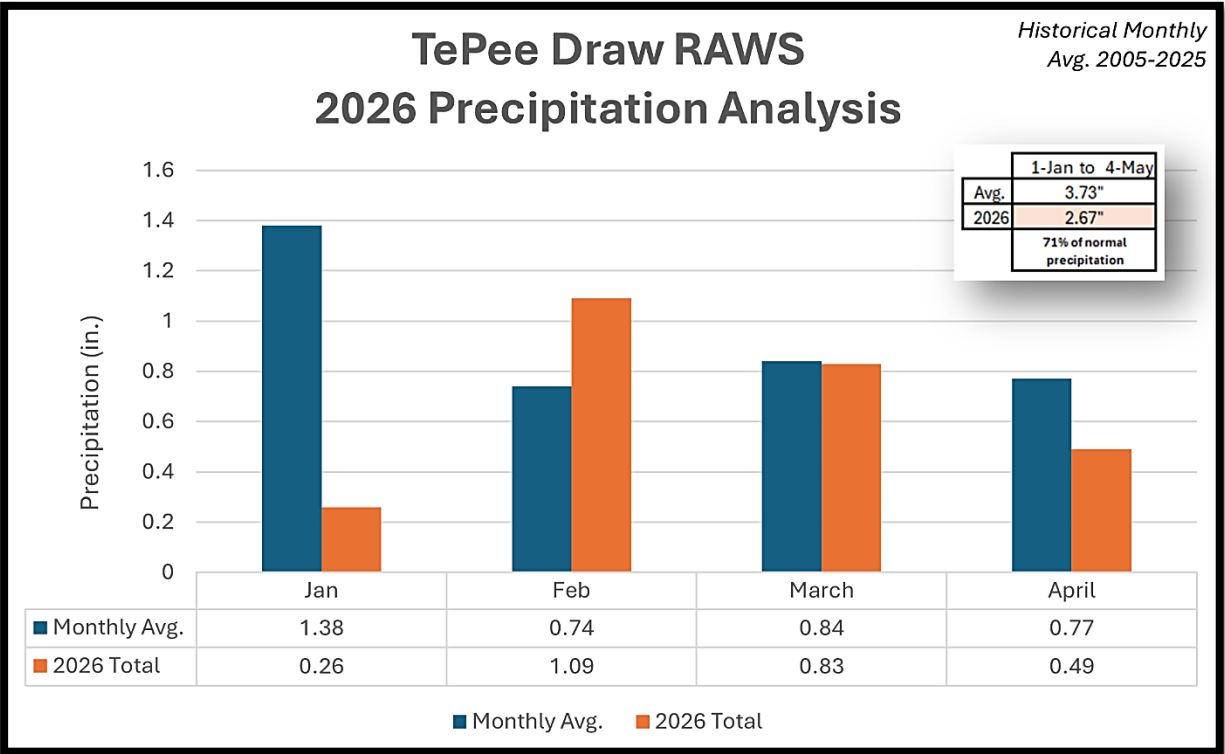


Figure 17: precipitation at TePee Draw RAWS

#2: Analysis of Prescribed Fire Plan for Consistency with Agency Policy

Analysis of Pine Mountain 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	No	Not all signatures are on the burn plan cover page. Burn Plan Preparer and Technical Reviewer have names and completion dates listed but no physical signatures present. FMO Reviewer signed and dated in 2023, and Agency Administrator signed and dated annually from 2023-2026.	No
Element 2A: Agency Administrator Ignition Authorization	Yes	Compliant.	No
Element 2B: Prescribed Fire GO/NO-GO Checklist	Yes	Compliant.	No
Element 3: Complexity Analysis Summary and Final Complexity	Yes	Complexity summary signed by Preparer(s), Technical Reviewer, and Agency Administrator. Preparer(s) signature(s) not dated.	No
Element 4: Description of Prescribed Fire Area	No	Description does not identify relevant information for outside boundary or describe values within unit. Percentages of ignition unit composed of each vegetative type and corresponding fuel model not included.	No
Element 5: Objectives	Yes	Compliant.	No
Element 6: Funding	No	Specific funding source not identified.	No
Element 7: Prescription	Yes	Compliant.	No
Element 8: Scheduling	Yes	Compliant.	No

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	Yes	Compliant.	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	Yes	Compliant.	No
Element 15: Ignition Plan	Yes	Compliant.	No
Element 16: Holding Plan	Yes	Compliant.	No
Element 17: Contingency Plan	Yes	Compliant.	No
Element 18: Wildfire Declaration	Yes	Compliant.	No
Element 19: Smoke Management and Air Quality	No	Ensure that smoke-sensitive receptors are identified as values in complexity analysis, and that technical difficulty of mitigating smoke and air quality are reflected in complexity rating.	No
Element 20: Monitoring	Yes	Compliant.	No
Element 21: Post Burn Activities	Yes	Compliant.	No
Prescribed Fire Plan Appendices: Appendix A: Maps: Vicinity, Project (Ignition Units)	Yes	Compliant.	No

Prescribed Fire Plan Elements	Consistent with Policy (NWCG and USFS)¹ (Yes or No)	Comments	Contributing Factor? (Yes or No)
Appendix B: Technical Review Checklist	Yes	Compliant.	No
Appendix C: Complexity Analysis	Yes	Compliant.	No
Appendix D: JHA or Risk Assessment	Yes	Compliant.	No
Appendix E: Fire Behavior Modeling Documentation	Yes	Compliant.	No
Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)	n/a	Not Included – Optional	n/a

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: Analysis of Prescribed Fire Implementation for Consistency with Prescription, Actions, and Procedures in Prescribed Fire Plan

Analysis of Pine Mountain 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	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	Yes	Compliant.	No
Element 2B: Prescribed Fire GO/NO-GO Checklist	Yes	Compliant.	No
Element 3: Complexity Analysis Summary and Final Complexity	No	Actual staffing of RX organization was significantly above what was detailed in complexity analysis and may indicate a higher complexity than reported in terms of risk management and technical difficulty. Complexity analysis was primarily based on values at risk and proximity to communities; consider granting more weight to technical challenges when developing rating.	Yes
Element 4: Description of Prescribed Fire Area	Yes	Consider utilizing live Fuel Moistures in description of area and improving detail for fuels data in adjacent areas, including fuel type, aspect, and boundaries. Consider referring to specific appendices for maps/images.	No
Element 5: Objectives	No	Objectives not consistent with ignitions plan. Plan as written did not accurately reflect plans and actions operationally. Consider reviewing plans for language that does not pertain to specific units.	Yes

Prescribed Fire Plan Elements	Consistent with Prescription, Actions, and Procedures (Yes or No)	Comments	Contributing Factor? (Yes or No)
Element 6: Funding	No	Cost was much higher than planned, consider establishing trigger points or scheduling further discussion. Finalize/identify funding sources in plan prior to implementation.	No
Element 7: Prescription	No	Live fuel moistures (FMs) are referenced as specific prescription components, but measurements were not taken due to the unit coming into prescription prior to regular FM tracking. Consider tracking FMs based on observed conditions rather than standard calendar windows. Operations continued even when exceeding wind speed prescription parameters at the critical holding feature (ridgeline), but conditions were within parameters for the majority of the unit and leadership felt comfortable proceeding. The burn plan was written with primarily hand ignitions in mind, but the actual implementation relied heavily on UAS ignitions (see Elements 11 and 16).	Yes
Element 8: Scheduling	Yes	Compliant.	No
Element 9: Pre-burn Considerations and Weather	Yes	Spot weather forecasts did not include overnight conditions despite the Holding Plan relying on night temperatures/RH to moderate (see Element 16); consider requesting 24hr forecasts for all operations for full awareness.	No
Element 10: Briefing	No	Sufficient briefings were held but were inconsistent with burn plan that contains inaccurate objectives for the operation (see Element 5).	No

Prescribed Fire Plan Elements	Consistent with Prescription, Actions, and Procedures (Yes or No)	Comments	Contributing Factor? (Yes or No)
Element 11: Organization and Equipment	No	The burn plan did not address UAS equipment needs at length despite relying on them heavily for implementation. The high end of the burn plan called for an organization of 30-40 people, but the actual organization had around 100 individuals at the time of implementation. Significant differences between projected and actual staffing levels may suggest higher complexity as additional complications and logistic needs arise. Consider basing required equipment on capability, not specific type. The burn plan called for a type 2 dozer but implementation utilized a type 3; however, operational requirements for the equipment were still met. The water delivery plan was robust, but the operation lacked sufficient redundancy of critical water equipment such as fold-a-tanks, pumps, and bladder bags to compensate for the single-point failure caused by the hoselay burning overnight.	Yes
Element 12: Communication	Yes	Compliant.	No
Element 13: Public and Personnel Safety and Medical	Yes	Compliant.	No
Element 14: Test Fire	Yes	Compliant.	No

Prescribed Fire Plan Elements	Consistent with Prescription, Actions, and Procedures (Yes or No)	Comments	Contributing Factor? (Yes or No)
Element 15: Ignition Plan	No	The burn plan states that “drip torches and UTV mounted ignition devices will be the primary ignition source,” but implementation relied on UAS platforms as the primary ignition source. Consider revising the burn plan to address UAS ignitions in more detail including requirements and plans. The ignition plan requires that a Project Aviation Safety Plan (PASP) be attached in appendices if aerial ignitions occur. The Forest had a PASP on file but did not attach it in the appendices. Language in Element 15 (“ignition operations will begin on the downwind side of the unit and control lines will be secured with strip firing (black lining)”) contradicts stated objective in Element 5: “Do not intentionally ignite scattered fuels or brush outside driplines.”	No
Element 16: Holding Plan	No	Programmatic burn plans can make it difficult to discuss and identify critical holding points in specific units; consider adding appendices to expand on these points further. The holding plan does not address potential night shifts or similar holding actions/mitigation measures. The holding plan states, “Under normal circumstances mop-up will be left to moist air and cool nighttime temperatures that are common during the burn season.” However, the spot weather forecasts obtained did not include overnight hours that may have indicated abnormal conditions or triggered step-up actions or patrols; consider requesting 24hr forecasts for all operations for full awareness.	Yes

Prescribed Fire Plan Elements	Consistent with Prescription, Actions, and Procedures (Yes or No)	Comments	Contributing Factor? (Yes or No)
Element 17: Contingency Plan	Yes	Compliant.	No
Element 18: Wildfire Declaration	Yes	Ensure that all relevant individuals are aware of protocol and who makes final declarations.	No
Element 19: Smoke Management and Air Quality	Yes	Compliant.	No
Element 20: Monitoring	Yes	Compliant.	No
Element 21: Post Burn Activities	n/a	Compliant.	
Prescribed Fire Plan Appendices: Appendix A: Maps: Vicinity, Project (Ignition Units)	Yes	PDF maps in appendices were supplemented by FieldMaps and Avenza.	No
Appendix B: Technical Review Checklist	Yes	The Technical Review Checklist was completed but could elaborate further in comments.	No
Appendix C: Complexity Analysis	No	Refer to Element 3.	Yes
Appendix D: JHA or Risk Assessment	Yes	Compliant.	No
Appendix E: Fire Behavior Modeling Documentation	Yes	Appendix E included BEHAVE modeling but not the IFTDSS modeling that was also run; consider including all models in appendix. Models were only run for within the burn unit; consider modeling areas surrounding the units for greater awareness.	No

#4: Approving Agency Administrator's Qualifications, Experience, and Involvement

The Burn Plan and associated Complexity Analysis were both formally approved by the Deputy Forest Supervisor, who is a qualified Type 2 Agency Administrator (RXA2) for the unit. The same qualified Agency Administrator signed the Ignition Authorization (Element 2A) for the first day of ignitions, May 5, permitting the implementation of the burn plan. The Forest Supervisor, also a qualified RXA2, signed the Ignition Authorization for the second day of ignitions, May 6. Both Agency Administrators possess extensive experience with prescribed fire operations, are familiar with the project area, and remained actively engaged throughout the project.

#5: Qualifications and Experience of Key Personnel Involved

The Burn Plan preparers were a qualified Type 2 Burn Boss (RXB2) and a trainee (at time of signing), and the Technical Reviewer of the Burn Plan was also a qualified RXB2.

For the project's implementation, the assigned Burn Boss was a qualified RXB2 accompanied by an RXB2 trainee, and the Firing Boss (FIRB), Prescribed Fire Manager (RXMG), and Holding Boss (assigned as ENGB) were all fully qualified and well-experienced.

UMOD-1 consisted of one pilot fully qualified for Beyond Visual Line of Sight (BVLOS) and Aerial Ignitions operations, and one fully qualified for BVLOS and Extended Line of Sight (ELOS) operations and a trainee in Aerial Ignitions. UMOD-2 also assisted with UAS operations with two fully qualified aerial ignitions pilots and two trainees.

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.

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	X
	Insufficient ignition plan	
	Insufficient mop-up and patrol plan	
	Insufficient contingency plan	
	Insufficient technical review	
	Complexity rating did not adequately reflect the conditions experienced	X
Operations	Burn could not be completed and secured before forecasted worsening weather arrived	X
	Test fire did not provide accurate representation of fire potential	
	Actions taken inconsistent with those described in the burn plan	X
	Insufficient patrol after burn boss transfers control to local unit	
Communications	Unit boundaries or special features not communicated or identified accurately	
	Instructions not given or well understood	X
Equipment	Malfunction or breakdown	X
	Improper use or selection of equipment	X
	Equipment not set up and tested prior to need	X
Fire Environment	Extended fire persistence – 2 weeks or more in patrol status	
	Actual weather experienced was outside what was forecast	
	Severe drought conditions contributing to unusually dry fuels	X
Fuels	Higher than typical fuel quantity/loadings	
	Large machine piles	
	Hand piles	
Human Factors	External influences or distractions	
	Internal stress or fatigue	X

1. Planning - Insufficient Holding Plan

- The holding plan did not incorporate sufficient redundancy in key water delivery equipment that would be required to suppress spots in the project area and planned to charge hoselay with an engine and bladder bags. Water was available at the Observatory but not at the ridgeline, the hardest piece of line and critical holding point. Additionally, potential night shifts, swing shifts, or other mitigation measures were not explored and could offer leadership more confidence in requesting such resources if needed, even for a planned event.

2. Planning - Complexity Rating Did Not Adequately Reflect the Conditions Experienced

- The complexity rating was based primarily on values at risk rather than other elements such as the size of the organization, steep terrain, limited containment opportunities, fuel concentrations near critical holding points, limited accessibility, opportunity windows rarely occurring in the project area, or other additional indicators of high complexity.

3. Operations - Burn Could Not Be Completed and Secured Before Forecasted Worsening Weather Arrived

- The holding plan was not adjusted to incorporate additional control and mop-up because forecast conditions were unknown, as spot weather forecasts did not include overnight conditions to incorporate into planning. The holding plan relied heavily upon using the nighttime's lower temperatures and higher RH to limit fire activity, but overnight recovery was moderate to poor and the area experienced high winds after midnight.

4. Operations - Actions Taken Inconsistent with Those Described in the Burn Plan

- The burn plan appeared to use a standardized template and relied on previously established language that was not applicable to the specific project area; consequently, actions taken during implementation were frequently inconsistent with those described in the burn plan.

5. Communications - Instructions Not Given or Well Understood

- There were some instances of miscommunication or instructions not being understood, such as the acceptability of a night shift on a planned event, the urgency of the spot fires on the morning of the declaration, and some confusion over an inquiry versus request for aircraft.

6. Equipment - Malfunction or Breakdown

- The malfunction of UMOD-1's platform caused considerable delays in the day's ignitions and pushed operations further into the heat of the day and later into the evening than planned.

7. Equipment - Improper Use or Selection of Equipment

- Water resources utilized were insufficient; selection and strategic placement of additional resources (such as fold-a-tanks and pumps) would have been appropriate for the complexity of the project.

8. Equipment - Equipment Not Set Up and Tested Prior To Need

- UMOD-1 did not set up and test their UAS platform prior to the day of ignitions and consequently experienced malfunctions that significantly delayed operations. Additionally, they did not pick up the backup platform provided by the region as directed.

9. Fire Environment - Severe Drought Conditions Contributing to Unusually Dry Fuels

- Snow drought contributed to warm and dry conditions resulting in the project area becoming available for burning significantly sooner than average years. At the time of ignitions, all of Deschutes County was experiencing moderate (D1) to severe (D2) drought conditions.

10. Human Factors - Internal Stress or Fatigue

- The late hours and long duration of the operation's shifts contributed to crewmember stress and fatigue. The Deschutes National Forest had been working on prescribed fire projects continuously for a month and a half prior to the Pine Mountain RX, though the unit was heavily supported by out-of-area resources as well. Pine Mountain was the forest's 31st RX operation of the season and the district's 15th, compared to averages of 22 and 13 projects per season, respectively.

Appendix III: Findings and Recommendations

Findings (Optional)

Not applicable.

Appendix IV: Chronology

Date	Time	Unit	Activity
4/28			Initial organizational concept drafted
4/30			Staff begin scouting Pine Mountain
5/1			Leadership briefing; RXB2, RXB2(t), FIRB, HOLD roles established
5/3			IMET tours project area, Pine Mountain RAWs data compared to Kestrel
5/3			Potential problem terrain features identified
5/3			IHC completes prep work and scouting
5/3			RXB2 scouts medevac sites, contingency lines, briefing locations, aerial ignition locations, lookout locations; drafts operational concept
5/4			RXB2, FIRB, HOLD scout unit and finalize operational plan
5/4			RXB2(t) prepares IAPs, resource coordination, administrative documentation
5/4			AA discussion and 2A signature
5/5	08:00	3A	Resources begin arriving at unit
5/5	08:45	3A	Briefing conducted
5/5	09:12	3A	Dispatch documents resources moving into place
5/5	09:15	3A	TFR activated
5/5	09:22	3A	RXB2(t) initiates leadership group text
5/5	09:43	3A	Test fire initiated at DP30
5/5	09:52	3A	Test fire declared successful, ignitions initiated
5/5	13:09	3A	Aerial ignitions initiated
5/5	13:28	3A	UAS grounded due to malfunction
5/5	14:00		COFMS DO/RX fire coordination call
5/5	14:30	3A	Blacklining operations continue
5/5	15:28	3A	IHC UAS begins aerial ignitions
5/5	15:51	3A	Dispatch receives fire report from camper; personnel find no fire
5/5	17:33	3A	COIDC communication issues occur; comms rerouted through Eugene
5/5	18:30	3A	RXB2, RXB2(t), FIRB, HOLD, and IHC supts. discuss operational plan for following day, decide to proceed to Block 3B
5/5	19:29	3A	Aerial ignitions completed, total ignitions at 85%
5/5	19:55	3A	IHC UAS grounded with no further missions for day
5/5	20:26	3A	Ignitions 95% complete, non-essential resources released
5/5	21:44	3A	Ignitions officially complete on Block 3A
5/5	22:52	3A	All resources accounted for and out of service
5/6	06:00	3A/3B	RXB2 and RXB2(t) arrive at office, print updated documents, update 2A
5/6	07:17	3A/3B	Forest Supervisor added to leadership text thread as AA
5/6	08:00	3A	FIRB and HOLD recon, find all lines secure
5/6	08:30	3B	Briefing conducted
5/6	09:11	3B	Dispatch confirms all resources accounted for, briefed, engaged
5/6	09:32	3B	Communications switched to different channels to avoid interference from neighboring district RX
5/6	10:08	3A	IHC UAS conducts IR scan of unit, confirms all lines secure
5/6	10:30	3B	FIRB initiates conversation regarding saddle between DP35 and DP36
5/6	10:40	3B	Test fire initiated on ridgeline
5/6	11:07	3B	Test fire declared successful, ignitions initiated

5/6	11:47	3B	Prescription parameter discussion occurs via AA text thread; fire effects remain acceptable
5/6	13:17	3B	Blacklining operations reach 50% completion; some isolated torching observed in heavy fuels
5/6	13:17	3A	Smoldering observed in heavy fuels, smoke described as light
5/6	14:00		COFMS DO/RX fire coordination call
5/6	14:35	3B	First spot fire emerges adjacent to handline, is suppressed
5/6	15:05	3B	Crews encounter technical terrain near DP36, slow ignitions
5/6	17:02	3B	Blacklining nearly complete, aerial ignitions initiated
5/6	17:10	3B	Prescription parameter update occurs via AA text thread; ridgetop winds strong, downslope winds within prescription
5/6	17:53	3B	Three spot fires identified near DP35, largest approx. 0.25 acre; blacklining complete; ignitions paused while securing spots
5/6	19:00	3B	Leadership discusses operational status; IR flights find no heat outside containment
5/6	20:00	3B	Aerial ignitions resume as conditions moderate
5/6	20:17	3B	Ignitions approx. 50% complete; unnecessary resources released
5/6	20:17	3A	Containment lines remain secure
5/6	20:40	3B	Spot fire identified 400' downslope from DP35; aerial ignitions stopped, UAS reconfigured for IR
5/6	21:00	3B	Hand ignitions along 100 spur road initiated to complete unit
5/6	21:26	3B	TFR expires, IHC UAS completes operations with no heat found outside containment
5/6	22:11	3B	Ignitions officially complete on Block 3B
5/6	22:45	3B	All resources released
5/6	23:10	3B	All resources accounted for and out of service
5/7	06:00	3B	RXB2 and RXB2(t) arrive at office, depart for Pine Mountain
5/7	07:15	3B	RXB2 identifies first spot fire near saddle between DP35 and DP36; minimal fire behavior observed
5/7	07:15	3B	RXB2(t) identifies second spot fire near DP36; active on approx. 50% of perimeter
5/7	07:30	3B	RXB2 makes notifications of confirmed slop-overs; FIRB takes command of spot fire suppression, HOLD maintains command of holding operations
5/7	07:45	3B	Dozer begins moving toward DP36, hand crew moves to DP36
5/7	08:00	3B	RXB2, RXB2(t), and HOLD reorganize resources
5/7	08:25	3B	First IHC arrives, moves directly to DP36 spot fire
5/7	08:30	3B	Briefing conducted
5/7	08:33	3B	Second IHC arrives, moves directly to spot fire between DP35 and DP36, plans IR flight
5/7	09:00	3B	Aviation resource needs discussed; engine moves toward DP36; COFMS DO notified of spots
5/7	09:25	3B	Gathering of water-handling supplies from local cache coordinated
5/7	09:30	3B	Spot fire approx. 300' below line, working upslope
5/7	10:00	3B	Request submitted for UAS support to identify spots
5/7	10:04		District FMO inquires about helicopter support
5/7	10:10	3B	Spot fire directly threatens hoselay
5/7	10:25	3B	Larger spots identified below line
5/7	10:30	3B	Multiple spots observed, spotting approx. 1/4 mile downslope; ICS structure updated
5/7	10:35	3B	Crews repositioned into black near DP36 to reassess; additional hose requested; prep begins on 2017 Road; third IHC contacted to support hoselay

5/7	10:45	3B	SEATs requested for heel of fire
5/7	10:50	3B	Lower spot fire actively backing, throwing spots downslope; minimal backing observed at upper spot fire
5/7	11:00	3B	Fire behavior intensifies heading downhill within 150' of 2017 Road; dozer pulled back
5/7	11:00	3B	Meeting conducted with AAs and forest leadership to discuss status update, trigger points for conversion; plan to reassess at 14:30
5/7	11:27	3B	Type 1 helicopter ordered
5/7	11:45	3B	Defensive firing along 2017 Road planned; operational objectives established; contingency resources ordered; crews disengaged from suppression near 2017 Road
5/7	12:00	3B	Heavy tankers requested; defensive firing initiated
5/7	12:07	3B	Fire likely crosses 2017 Road; division assignments created
5/7	12:10	3B	Third IHC shifts to Observatory protection; dozer operations refocused around DP35; additional resource requests submitted
5/7	12:38	3B	Fire approx. 300' below DP37, trending toward Observatory
5/7	13:00	3B	Fire estimated within 1.5 miles of DP34; additional resources requested; T1 helicopter approx. 35 miles out
5/7	13:05	3B	Dispatch confirms mobilization of additional aircraft
5/7	13:16	3B	ODF contacts dispatch inquiring whether RX has been declared
5/7	13:34	3B	Fire estimated approx. 500 acres outside of unit; trigger points met or imminent; external partners notified; Central Oregon T3 team begins rostering
5/7	13:37	3B	Dispatch sources engines for night shift
5/7	13:45	3B	Fire progresses past DP35 ridge into bowl toward DP34
5/7	14:00	3B	Fire reaches 2024 Pine Fire scar
5/7	14:30	3B	AAs and forest leadership meet, recommend conversion; PAO requests temporary pause on declaration to prepare public messaging
5/7	15:24	3B	Burn boss authority transferred from RXB2 to district FMO as ICT3
5/7	16:06	3B	Pine Mountain RX officially converted to Pine Mountain Fire
5/18	10:03		Pine Mountain Fire declared fully contained at 2568 acres

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

	United States Department of Agriculture	Forest Service	Deschutes National Forest	63095 Deschutes Market Road Bend, OR 97701 541-383-5300
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File code: 5140	Date: June 5, 2026
Route to:	

Subject: Delegation of Authority – Declared Wildfire Review for Pine Mountain RX

To: Jason McGovern

This letter formalizes your appointment as Review Team Leader to complete a Declared Wildfire Review for the Pine Mountain prescribed fire initiated on May 05, 2026, that resulted in the Pine Mountain Wildfire on the Bend Fort Rock Ranger District of the Deschutes National Forest.

To ensure an objective and insightful review, I have approved your review team roster that includes subject matter experts from the fire and aviation community.

As Team Leader, you have the authority of my office to execute and complete a thorough review as described in this document. Your point of contact for logistical and document assistance and coordination with the Deschutes National Forest is Robert Newey, Deputy Fire Staff, [REDACTED].

For necessary travel, equipment, salary or other costs related to this review use the Pine Mountain Fire charge code P6SNAP with override code 0601.

Your authority includes, but is not limited to:

- Controlling, organizing, managing, and directing the review
- Maintaining the confidentiality of the process
- Protecting and managing the integrity of documents, media or other artifacts collected.
- Authorizing requests for additional personnel, including technical specialists, to support the Team, and releasing them upon completion of assigned duties.
- Authorizing and coordinating the expenditure of funds.
- Issuance of Safety Alerts, if warranted, in coordination with Tim Hoiness, [REDACTED] and Matt Holmstrom, Regional Risk Management Officer, [REDACTED].

I want to thank you for your willingness to provide leadership for this important review. Please contact me at [REDACTED] if you need to discuss the details of this assignment or to schedule key team meetings or status reports.

Approved By:

Digitally signed by HOLLY JEWKES
DN: cn=HOLLY JEWKES, o=USDA, ou=Forest Service, email=holly.jewkes@aphis.usda.gov, c=US

HOLLY JEWKES
Forest Supervisor

Accepted By:

Digitally signed by JASON MCGOVERN
DN: cn=JASON MCGOVERN, o=USDA, ou=Forest Service, email=jason.mcgobern@aphis.usda.gov, c=US

JASON MCGOVERN
Review Team Leader

Cc: Review Team Members, Shawn Jaca, Robert Newey, Kevin Larkin, Cassidy Kern, Cason McCain

Enclosure: Expectations for Conduct of Declared Wildfire Review

Figure 18: Delegation of Authority

Enclosure 1: Expectations for 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 Groups NWCG [Standards for Prescribed Fire Planning and Implementation, PMS 484](#).

Representing My Intentions

Employees or others you will be interviewing to learn about this event will be interested in the purpose and objectives of this review and how the information they provide might be used. They may want to know how this review might affect their employment status, and the degree to which they might face civil or criminal proceedings. I expect you will represent my intentions for how I will use the information provided to your team as follows:

- In pursuit of full transparency and disclosure of the events that took place, I agree that no punitive actions will be taken by the Forest Service against any employee because of information provided to any member of your team. During the review, if it is discovered that willful negligence/illegal activity may have led to the outcome notify me immediately or a higher level or the organization if applicable.
- I expect that employees, including myself, are equally committed to the objective of this review to reduce the chances of a similar outcome in the future and will provide your team with honest and constructive accounts of their experience.
- Although not expected in this situation, please ensure participants understand the limits of my authority and that actions taken by private citizens, or other agencies or organizations, are outside of that authority and administrative or legal proceedings could be pursued by others based on information from this review.

Controls

Given the sensitive nature of these reports, all team members and other involved are expected to maintain close control over all drafts, final reports, and related materials. Use care and discretion when sharing these reports adhering closely to the processes described below.

In-Brief, Status Updates, and Out-Brief

You are scheduled to in-brief with my staff and I on Monday, June 15th at 1600 at the Deschutes National Forest Supervisor's Office. Robert Newey will be your logistical coordinator and my liaison to you throughout the process. Please contact him at [REDACTED] to discuss your logistical support needs as soon as possible.

I expect you will provide myself or my designee with status updates on your team's progress on a daily basis (in person, email or teams are all acceptable methods). I expect you to complete an initial draft within 30 days

which will allow time for review and feedback needed to finalize the report. If you need more time, or if you discover information that would warrant a different type of review or investigation, please contact me immediately to discuss further.

When your team is released from the local unit, I expect a final out-brief with myself and identified staff (in person or via teams). You, as team leader, are responsible for providing me with the final report once complete. I will coordinate the rest from there.

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](#).

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. This includes forest fire and line leadership.
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 utilized 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, but it also differs in many respects. While the FLA is centered around learning and understanding of the event, it does not typically bring in the thoughts or opinions of third-party experts and relies almost exclusively on what was learned by those directly involved. The Declared Wildfire Review seeks to learn and understand what happened from the perspective of those involved, but also employs the knowledge and expertise of review team members with applicable expertise to provide additional context to the story by providing a description of the setting and conditions surrounding the event, and a critique of how applicable policy standards were applied including training, planning, and implementation standards.

An understanding of the FLA process gained from attendance in [NAFRI Learning from Unintended Outcomes Workshop](#) or [LFUO: Self Study](#) is helpful for all team members, but not required. I expect that you will use a similar approach to interviews and interaction with those involved as is described in the FLA process, but that you will be clear that this is not an FLA and rather this review is in pursuit of the goals described above.

Format, Content and Organization

Use the Declared Wildfire Review Implementation Guide and associated template to format your review. [USFS- National Fire Use Branch](#). The content and organization of the final report will meet the minimum standards as described in National Wildfire Coordinating Group PMS 484 under the requirements of an "Outcome Review". The telling of the story of what happened, the chronology of events, and 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.

In addition to the narrative and lessons from those directly involved, I am also requesting that your team reflect on this event and provide lessons learned from the team's perspective as outside observers with applicable expertise in prescribed fire. I also ask that your team be alert to and if identified, include findings of conditions that contributed to the outcome along with recommendations for actions whether they be local, regional, or national in scope, that could help mitigate those conditions and reduce the potential for similar outcomes in the future.

Use the process for draft review, upward reporting and final submission found in the Declared Wildfire Review Implementation Guide.

Figure 19: Conduct of Declared Wildfire Review

Appendix VI: Glossary of Terms

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

Appendix VII: Review Team

Team Lead: Jason McGovern – Regional Fuels Coordinator, USFS Pacific Northwest Region

Team Members:

- **Subject Matter Expert:** Cameron Stinchfield – Tiller Ranger District FMO, USFS Umpqua NF
- **Subject Matter Expert:** Matthew Malesic – Deputy Fire Planner, USFS Eastern Region
- **Subject Matter Expert:** Rebecca Weber – Fire Planner, USWFS Southwest Oregon Unit
- **Writer/Editor:** Tamra Pontow – Fire Administrative Assistant, USFS Helena-Lewis and Clark NF