



# LODGEPOLE SPRINGS PRESCRIBED BURN DECLARED WILDFIRE JULY 2018

## **FACILITATED LEARNING ANALYSIS**

Boise National Forest  
Emmett Ranger District



Report Date: September 17, 2018

On April 24 and 25, 2018, the Lodgepole Springs Restoration Prescribed Burn was ignited on the Emmett Ranger District of the Boise National Forest. Burn operations went as planned and subsequent ample precipitation signaled that the fire would be extinguished over time. However, intermittent smoldering and flaring resumed as warm, dry weather increased. Though the burn remained within the project area boundary, complications in managing and holding it as a prescribed burn became untenable. On July 14, 2018, it was declared a wildfire.

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## INTRODUCTION

On April 24 and 25, 2018, the Lodgepole Springs Restoration Prescribed Burn<sup>1</sup> was ignited on the Emmett Ranger District (RD) (Figures 1 and 2). The aerial ignition operations went largely according to plan. Over the next few weeks, the project area received abundant precipitation, but then began to dry out. Unburned fuels remaining within the unit began to reignite due to this seasonal drying.

Despite the fact that to this point, the fire had not burned outside the project area, on July 14, 2018, eighty days after ignition, the prescribed burn was declared a wildfire. A Facilitated Learning Analysis (FLA) team was convened to tell the story of what occurred between ignition and wildfire declaration and to address the following:

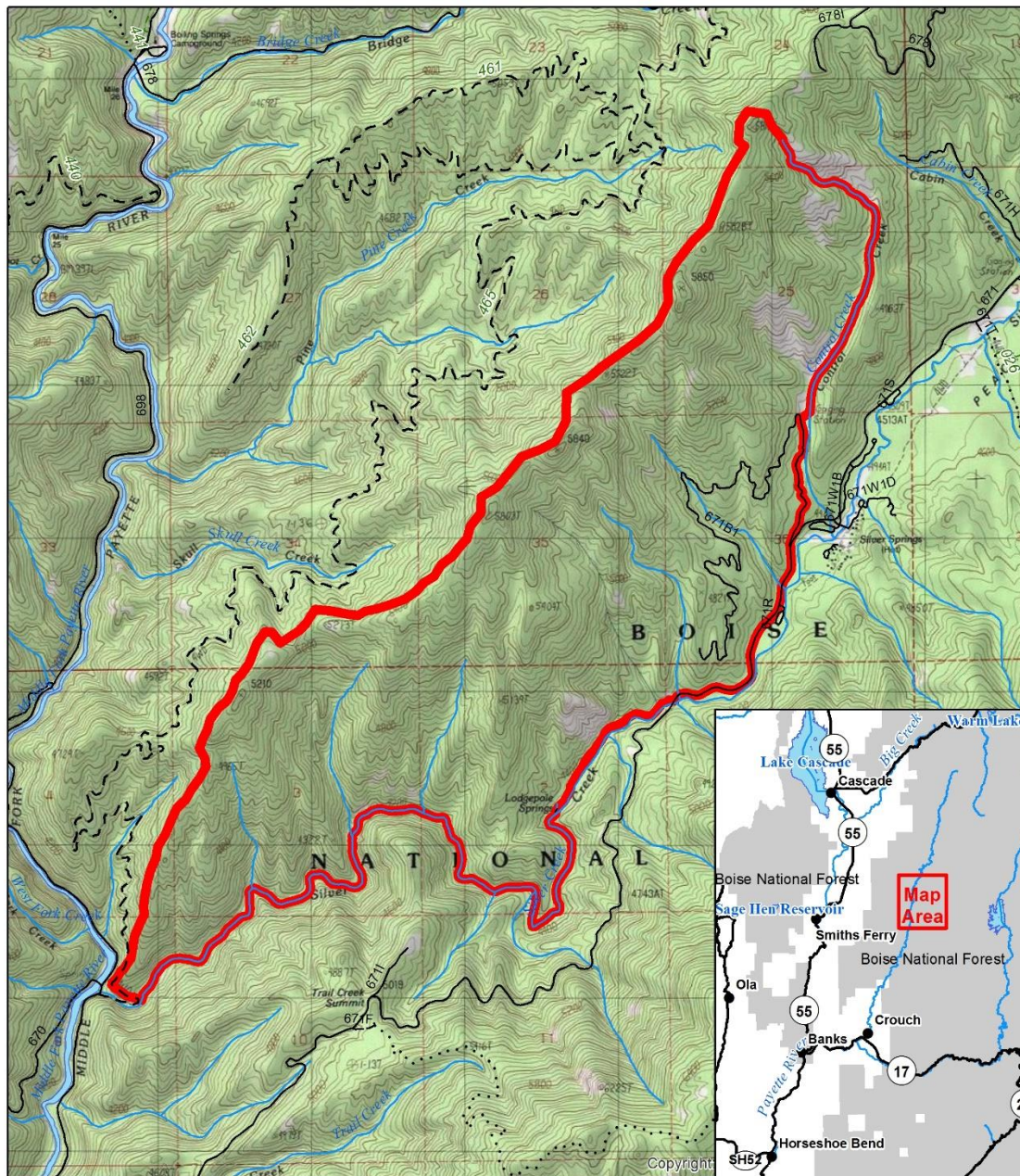
- review the burn plan and provide feedback on what was done well and what needs to be improved
- provide feedback on how well the changing circumstances were adapted to and how the internal communication worked
- review the public involvement strategy; what information was shared; how was it done; what was done well and what needs improvement
- what challenges resulted from not declaring the burn and therefore not having the associated policies and funds to obtain needed resources and support

The FLA Team was also delegated to conduct a declared wildfire review (Appendix A) based on page 39 of the [Interagency Prescribed Fire Planning and Implementation Procedures Guide, July 2017](#).

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<sup>1</sup> Also called the Lodgepole Springs Restoration Underburn.





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File: T:\FS\NFS\Boise\Project\Emmett\5150\LodgepoleSprings\2016\GIS\MXD\LodgepoleSpringsVicinityMap\_Port03192016.mxd

- Project Boundary
- Boise NF District Boundary
- Open Road
- Stream - Named Perennial
- Trails
- ATV 50" or less
- Motorcycle
- Non-Motorized Trail



This U.S. Department of Agriculture Forest Service map is the most current and complete data available. GIS data and products may vary. They may be developed from sources of differing accuracy, accuracy only at certain points, based on modeling or interpretation, incomplete while being revised or created, etc. Using GIS products for purposes other than those for which they were created, may yield inaccurate or misleading results. The Forest Service reserves the right to correct, modify, or replace GIS products without notification.

Figure 1. Lodgepole Springs Prescribed Burn Vicinity Map.



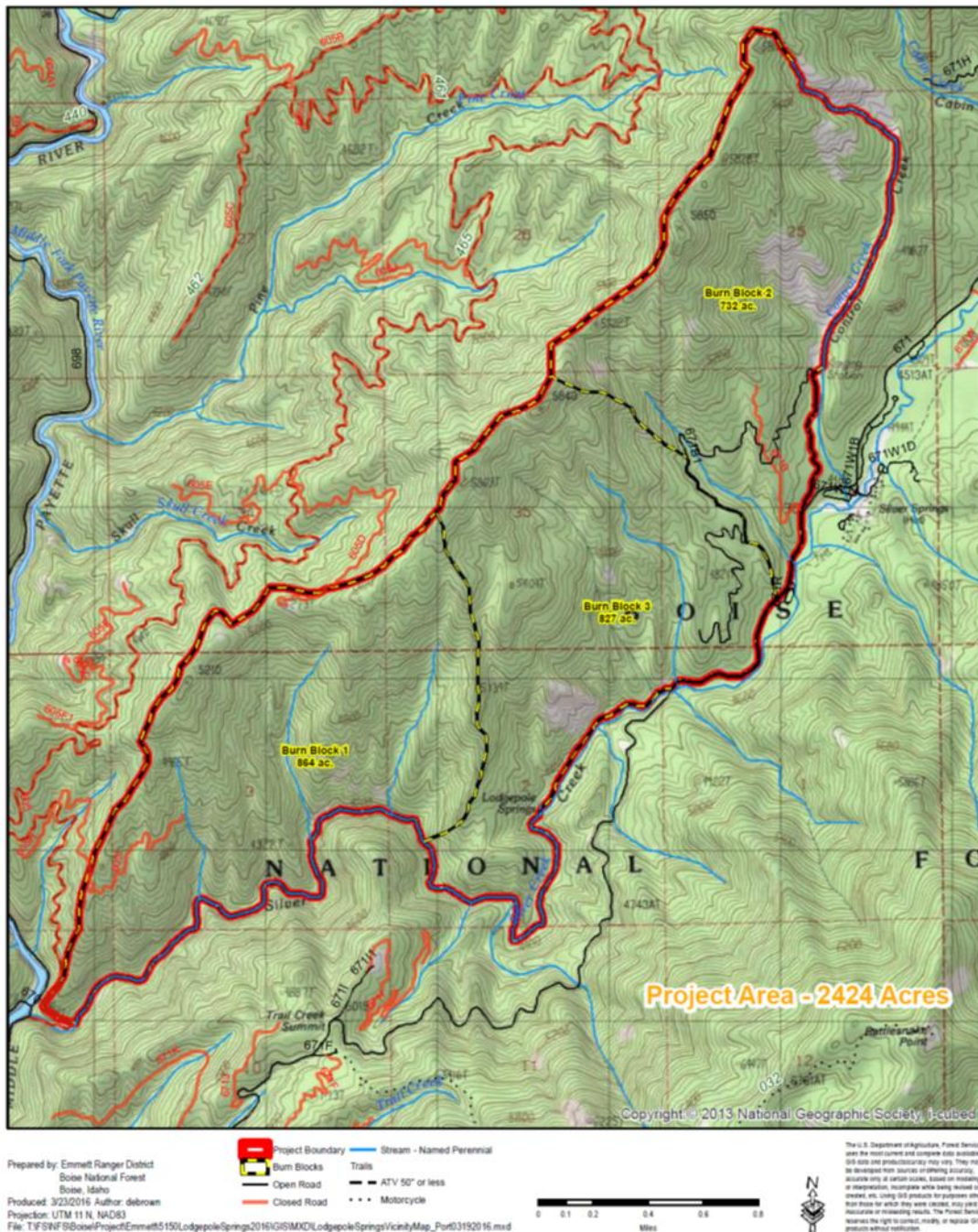


Figure 2. Lodgepole Springs Prescribed Burn Project Area (2,424 acres).

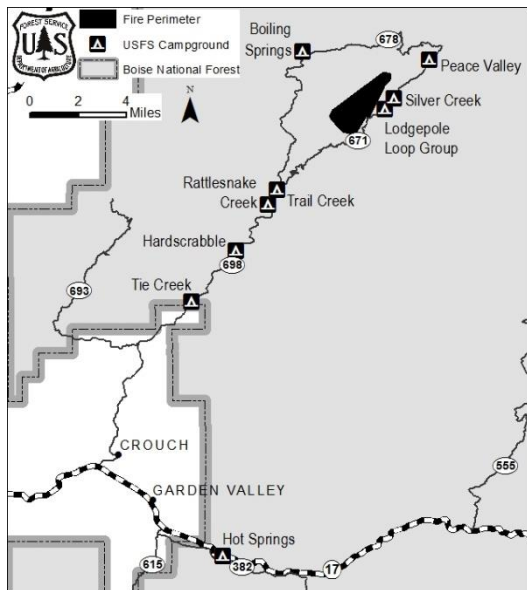
# SETTING

## Forest/District Setting

The Emmett RD encompasses approximately 350,000 acres on the 2,612,000-acre Boise National Forest (NF) located in West Central Idaho. The District completes prescribed burns consistently from year to year, generally underburning in the ubiquitous ponderosa pine and Douglas-fir forest.

## Prescribed Fire Setting/Location

The Lodgepole Springs Restoration Prescribed Burn Project is located in Valley County on the northeastern portion of the Emmett RD, approximately 14 miles north of the small community of Crouch (Figure 3). There are campgrounds in proximity and the Silver Creek Plunge Resort (Figure 3). The project area is approximately 2,424 acres and contains three burn blocks (units). Silver Creek and Control Creek, which are within the Middle Fork of the Payette River drainage, form the southern and eastern boundaries of the project area and the ridgeline forms the western boundary (Figure 2). The boundary for the upper and lower ends of each of the three units are the same as the project area boundary, so the three burn blocks form the entire project area (Figure 2).



**Figure 3. Relative project location.**

The generally south-facing project area is steep (average 50% slope), rocky, and varied. The vegetation is comprised of mixed conifer overstory, primarily ponderosa pine and Douglas-fir; subalpine fir is present in places. The burn blocks contain a large component of ninebark, shiny



leaf ceanothus, and various other brush species. Pockets of snags and abundant downed timber are scattered throughout. The elevation of the project area varies considerably, from 4,000 feet at Silver Creek, along the bottom boundary, to 5,840 feet at the ridge.



*June 27, 2018: Overview of project area and smoke.*

## THE STORY

### Background

This prescribed fire project is one of many that the Boise NF is implementing to reintroduce fire to the landscape. Some of the prescribed fire area had been logged, but none of it had any recent history of fire occurrence.

## The Plan

### **NEPA Analysis/Burn Plan**

The National Environmental Policy Act (NEPA) analysis resulted in the project being “categorically excluded” from documentation in an Environmental Assessment or an Environmental Impact Statement. The Decision Memo and associated burn plan were signed by the Emmett District Ranger on April 12, 2018. The proposed action was to treat the three burn blocks with low to moderate intensity underburning in the early spring or fall; objectives included reintroducing fire to the landscape to reduce the risk of intense wildfire and to improve forest health. The specific objectives were to maintain the stand health of the larger overstory trees; reduce 10-100 hour fuel loading by 30-65%; and reduce the understory by 25-50%.

*“This project was never designed to have people on the ground.” –Forest FMO*

The plan entailed the use of a helicopter for ignitions due to the burn block sizes, steepness of the terrain, and the dead and down wood component. No firelines were slated to be constructed since the snow, rock features, and riparian areas were expected to contain the burning.

### **Burn Day**

At 0830 on April 24 there was a briefing. Burn personnel consisted of a Burn Boss (RXB2) and Trainee, Firing Boss, Holding Boss, Plastic Sphere Dispenser Operator, Fire Effects Monitor, and a cadre of other local firefighters. The plan was to use residual snow and other rock/riparian features for holding. During interviews for this FLA report, the RXB2 related that there was still snow in the draws and on the ridge where it was planned to hang up the fire. There was discussion during the briefing regarding the lack of control lines.

After the briefing, personnel headed out to the site. The helicopter was delayed in arriving, but after a reconnaissance conducted by air, helicopter ignitions began at 1510. Strips of plastic sphere dispenser balls (PSDs) were laid across Burn Block 2 (Figure 2) (the northern-most unit).



**April 25, 2018**

Approximately 700 acres were ignited, ending at a rock outcropping area that divides Burn Blocks 2 and 3. Ignition operations were completed at 1545.

Low to moderate fire behavior was observed. The fire crept and smoldered around, with occasional single-tree torching and pockets of fire exhibiting 2-3 foot flame lengths.



The plan for April 25 was similar to the day before. Activities were delayed due to an inversion. At 1155 recon was completed, after which, the helicopter returned to the helibase to reconfigure for PSD operations. It returned to the unit, and ignitions then began at 1415, proceeding south into Burn Block 3; ignitions were completed at 1500.

The RXB2 went to Silver Creek Plunge Resort to check to see if smoke was a concern in the area. At 1740 all remaining resources departed from the project area and headed back to station where an AAR was completed. In total, approximately 1,200 acres were treated.

The FEMO (Fire Effects Monitor) report stated that many of the PSD balls didn't ignite, and therefore in some areas, the fuels didn't burn as completely as desired. Larger fuels only consumed in areas that were in direct sun light. Grass and brush did not consume under the closed canopies. North facing aspects and in the drainages did not consume due to high fuel moistures. However, the ignition operations were deemed a success, and the objectives in the burn plan were being met within the areas observed. The positive effects of introducing fire on the landscape was evident within the burn perimeter.



***April 26, 2018***

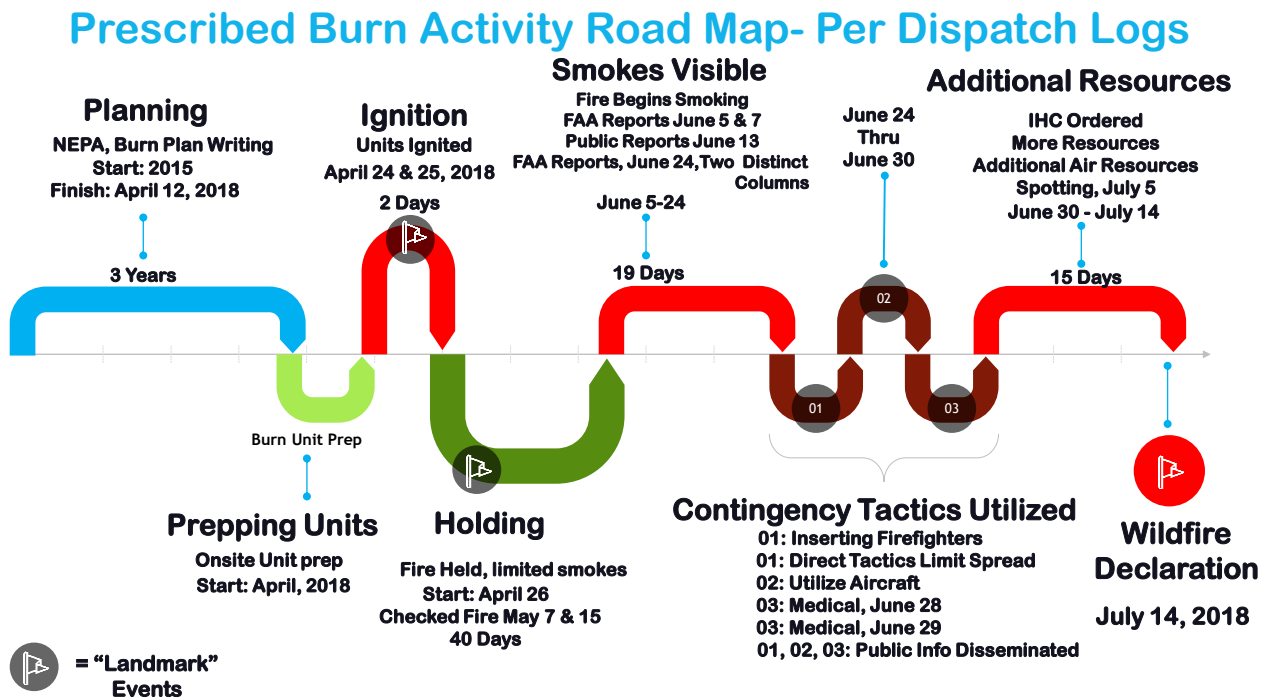


***April 26, 2018***

***April 26, 2018***

## What Happened

### Dispatch Log Chronology



\***Implementation (April 24-25):** Ignition activities.

\***Monitor and Patrol (April 26-June 4):** Period of rain, holding, patrol and monitor status.

\***Transition (June 5-June 24):** Fuels drying out, fire moving around, public interest increasing.

\***Action (June 24-July 13):** Fire starting to threaten lines, fire behavior picking up, additional resources needed, Forest struggling to find additional resources, supplies, and food.

\***Declaration of Wildfire (July 14):** Fire is declared.



## ***Escalating Fire Behavior***

For almost another month and a half after ignitions, the burn area received intermittent precipitation measuring approximately two inches. (See Figure 4 in Appendix A.) In the first few

*“Initially we didn’t want to put people in, because the fire was doing good work.” – Forest Fuels AFMO*

weeks, Boise NF personnel monitored and patrolled the project area periodically. A decrease in smoke and fire activity was observed during this time. It continued to smolder in the heavy dead and down fuel sources and in the steep and rocky portions of the burn blocks. In mid-May discussion began

regarding whether to mop up the smokes. However, the fire remained within the project boundary and was meeting objectives; management staff felt the risk was not necessary to insert firefighters into the burn area.

As the weather warmed and the spring precipitation ceased, fuels which had been unavailable before, began drying out allowing the fire to creep into unburned fuels and vegetation within the burn blocks.

## ***Smoke Concerns***

Starting about mid-May, there were reports of smoke causing concern and aggravation in the area, particularly to the residents around the community of Crouch. The community is situated at the bottom of a drainage and smoke often settles there. The calls increased as the weather continued to warm.

Smoke had not been visible for about two months due to cool, wet weather. Now with the increase in smoke, many people believed that the burn had been lit much more recently than it had, which further contributed to their frustration. The comment from the public was often, “Why would the Forest Service do a prescribed burn now (June)?!” Some were also frustrated with the smoke beginning in April and likely continuing into the summer. Though in actuality, there was initially little smoke emission. The frustration and resulting backlash, particularly on social media, but also in face-to-face encounters, became so intense that more than one firefighter reported that they stopped wearing Nomex in town.



***April 24, 2018***

## ***Public Information Efforts***

To alleviate some of the concerns, public information efforts were made which included media releases, radio interviews, personal contacts, fliers, and posts to social media; the first being on June 8. The overall message that the Public Affairs Officer (PAO) desired to be communicated was that the smoke was from a prescribed burn that was lit in April, and the fire remained in the project area boundaries.

There was good communication between the fire Public Information Officers (PIO) and the detailed PAO. The intent was to downplay the fire management efforts to avoid public perception that the fire had escaped and was out of control, which it was not. It was important to be transparent and get information out, but try not to attract more attention from the public. At the ground level, there was some desire to give more information to the local public, highlighting the Forest Service fire management efforts. It was related that those interacting face-to-face with the public felt awkward because the Forest Service was working to hold the burn, but the information to the public was to deemphasize the fire operations to avoid the public perception that it had become an out-of-control wildfire.

No community meetings were called though the PIO and District Fire Management Officer (DFMO) did attend a portion of a Silver Creek Plunge residents' meeting.

## ***Transition***

Local resources continued to actively engage trouble areas and smokes within the burn blocks. There were numerous conversations between incident personnel and District leadership in regard to strategies and tactics. Due to the terrain and fuel loading, the local resources



***June 27, 2018***



***July 2, 2018***



continued to struggle to accomplish containment objectives. It became clear that additional resources were needed, and the risk to personnel weighed heavily on the minds of incident leadership. Incident personnel began conversations with District leadership regarding the need for additional resources and supplies to effectively carry out the tasks. There was also concern because the fire season was getting busier; should additional resources be required if the fire behavior increased, they might not be available.

### ***Boots on the Ground***

On June 28, due to the increase in fire activity, the decision was made to assign two Type 2 IA crews, two engine modules, and a Type 3 helicopter with helitack crew. The fire personnel were tasked with fire suppression tactics to decrease the likelihood of fire spread.

Some commented that there was a good plan as to where to put people, and that they were confident that fire managers were deliberate about where they were putting resources. Others voiced concern for the firefighters' risk associated with the hazardous conditions, especially considering that some of the crews were very inexperienced.

The steep terrain limited the effectiveness of ground crews and there were medical situations, two of which required the individuals to be flown off the burn. One of the life flights, July 28, was for a firefighter who was experiencing chest pains.<sup>2</sup>

***"There was too much fire out there to go direct on the whole thing. We had a lack of resource availability and the fire was in very steep country." – DIVS***

changed conditions). The Forest FMO commented that, "Fire is fire. Whether we light it, or Mother Nature does, we need to treat fire the same. The risk principles are the same; the hazards are the same. There is no such thing as a no-risk prescribed burn."

***"I stood there looking back, thinking, 'Can we do this safely?'" -DIVS***

June 29, 2018: As the crews and engine module began operations that day, a DIVS began scouting an area in which they had been concerned about assigning people to work. The small stand of dead trees had started to burn the day prior. When DIVS reached the stand, he found that most of it had burned. Only a few trees remained standing, minimizing the potential hazard. Standing at the edge of a shale-band cliff, DIVS pondered whether this change in conditions would allow firefighters to safely work in the stand.

With no warning except a loud "crack!" a nearby 30-32-inch diameter "cat-faced" snag that had previously been identified as a hazard, began to topple over. He looked back and saw that the snag was headed his way. Being at the edge of the shale cliff, DIVS tried to side hill, but was unable to gain traction as the shale sluffed under his boots. He slipped and fell; then having no other option, he launched himself down the shale cliff to get clear of the snag.

Once he was out of the snag's path and had been able to arrest his fall, only his pack remained with him; his helmet, water bottles, tool and various other items lay strewn behind him. DIVS had to be flown off of the hill due to his injuries. He was treated and released but was on light duty for a few weeks.

The other was on July 29 and involved the Division Supervisor (DIVS), who was downslope of a snag that fell downhill toward him (see inset).

Because of the exposure to the difficult terrain, many local personnel expressed frustration at not receiving at least hazard pay (though it was later granted due to

<sup>2</sup> The firefighter was released after three days in the hospital.

## ***Difficulty Supporting Fire Resources***

Once the Forest decided to take additional holding and contingency action on the prescribed fire, but prior to declaring a wildfire, all resources, equipment, supplies, and food had to be obtained by utilizing HF (project) funds. This caused many issues, including the inability of the Forest to procure caterers to supply firefighters with food or to obtain items from the National Cache System and interagency resources. The local personnel couldn't find any direction in the handbook on how to procure needed resources on a project code. Trying to interpret guidance and policy, as well as going through different processes than those used on wildfires caused a significant administrative burden and stress on firefighters.

Because the situation was not considered an emergency, local personnel could not order food or pay for lodging with project funds. However, they were being told to, "Just feed people." For two weeks personnel had been eating MREs. The Support Services Supervisor (SSS) and Forest Budget Officer, who was working on a fire in Utah at the time but was called back to the Forest, worked with Acquisition Management (AQM) to try to get some "real" food out to the burn personnel.

*"That's my job: to support these people so they can do their jobs safely and can go home to their families. If we keep operating the way we do, somebody is going to die. Is the stigmatism of converting to wildfire worth the loss of life?"*  
—Support Services Supervisor

It was understood that Albuquerque Service Center (ASC) guidelines specified that meals could not be purchased unless there was no way for the employees to get a travel advance for their per diem. Burn personnel were stationed too remotely to purchase their own meals, so travel per diem was of no use to them. Once an explanation of the situation was documented, then purchase of meals with project funds was possible but only through a Regional Office warranted contracting officer.

*"Those guys ate MREs for days. I got in trouble because I was ordering lunches."*  
— District AFMO

The Regional AQM group helped to solicit the vendors in the local community to provide meals and other local purchasing, but the SSS still could not pay for the food until AQM assisted<sup>3</sup> (due to the warranted contracting officer purchasing constraint). Though it did eventually work, the process took one to two days. It was finally possible to get hot food out to the crews (although the cost was such that it almost had to go out to bid). It was stressful to have immediate need for real food and other resources, but no way to quickly respond to that need. One local fire manager commented, "If we had an interagency agreement, it would have helped a little, but it wouldn't have solved the bigger issues. At a certain point, there were too many little barriers, particularly with getting people food; that was a big challenge."

Dispatch was unable to order single engine air tankers (SEATs) and other partner resources because the prescribed burn was a Forest Service planned event, and interagency business rules for wildland fire don't apply. An agreement could have been put in place to help facilitate this, but as the traditional fire season activity increased, the prescribed fire was simply not able

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<sup>3</sup> The Dispatcher noted that it is still unclear if the National Mob Guide direction on meals and caterers applied in this prescribed burn situation.



to compete for resources against wildfire needs across the Region. Frustration mounted in the Dispatch Center as they tried to support the prescribed fire and fill resource requests needed by firefighters on the ground. Due to not having an avenue for other agencies to charge to the Forest Service fuels project code, there were limitations as to what could be ordered. Personnel at Dispatch have a very strong commitment to supporting the needs of firefighters, and felt helpless in providing the necessary support for the operation on the ground. Eventually, after working with the Regional Office and the Great Basin Coordinating Group, resources became available that filled the needs of the incident.

A process was later generated for reimbursing \$150,000 to the Great Basin Cache for supplies that had been utilized; the cache is a Bureau of Land Management funded national cache. There is no avenue pre-identified to use Forest Service project funds to utilize supplies from the cache.

Another issue that surfaced in regard to the managing the escalating fire behavior as a prescribed burn was the inability to issue a Temporary Flight Restriction (TFR). The regulations which the local Dispatch follows in regards to implementing a TFR do not include prescribed fire. Because the project area was close to Garden Valley, there are several back country flights associated with a nearby airstrip. A NOTAM<sup>4</sup> that was issued was not sufficient. Forest Aviators believed there was need for a TFR, and after working with the FAA, a TFR was issued.

Once the prescribed burn was converted to a wildfire, all of the needed resources were much less complicated to obtain. The local SSS commented about the entire issue of using project funds that, "It requires pushing hard enough and a ton of resources working together. It also drains the needed funds from other project budgets." The SSS further expressed that, "There needs to be a fix to make it easier to get the tools that are needed on the ground, so it doesn't take a week to get that done. It should be easy. I understand the thinking that people are going to abuse the system. What's more cost effective? To make it so you can flip that switch and say we need this many resources, helicopters and crews before it spreads or to wait until it's very expensive to control. There needs to be a methodology drawn up from the fire community. I

***"A regional or national agreement rather than a bunch of small ones would alleviate a lot of stuff." – Local Fire Manager***

feel that there needs to be a strong look at how we do business, make the changes that are good for the people who work on the ground, this way we're not abusing the ones who do the work."

Employees from all levels of the organization from the Forest Supervisor, to Dispatch personnel, to the ICs and ground resources, expressed extreme frustration with regard to the process and how difficult it can be to obtain the needed resources while operating on a prescribed fire.

In summary, there are avenues, though they are not necessarily efficient, for providing the resources necessary to support a prescribed fire that has burned longer than expected. While there seems to be knowledge and methods to navigate through these issues at the Regional

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<sup>4</sup> A Notice to Airmen (NOTAM or NoTAM) is a notice filed with an aviation authority to alert aircraft pilots of potential hazards along a flight route or at a location that could affect the safety of the flight.

and National levels, it is not always helpful at the District level where projects are implemented. The business practices and process rules that made this situation difficult also affect many other projects in which there is a need to supply food and other resources to personnel working in circumstances where there isn't reasonable access to food and resources. Fire fighters, burn bosses, agency administrators, and local administrative support personnel are limited by who they talk to and what understanding they have locally regarding business practices and procedures. There isn't "corporate" knowledge, so these issues will continue to plague similar incidents such as this one. This knowledge gap will remain without further guidance and/or training from the Regional and National levels.

### ***The Indirect Line- The "Tipping Point"***

On July 13, an Interagency Hotshot Crew (IHC) formed a plan to build fireline outside of the project boundary on northeast ridge (Figure 4). The intent was to burn out the fuels between Control Creek and the ridgeline to the northeast to secure the northeast corner with "black-line" limiting further spread of the fire up the canyon. The Forest FMO commented that, "Going on the ridge outside the project area was really the driver for converting, giving us access to resources, and bringing in IHCs that were desired for operations."

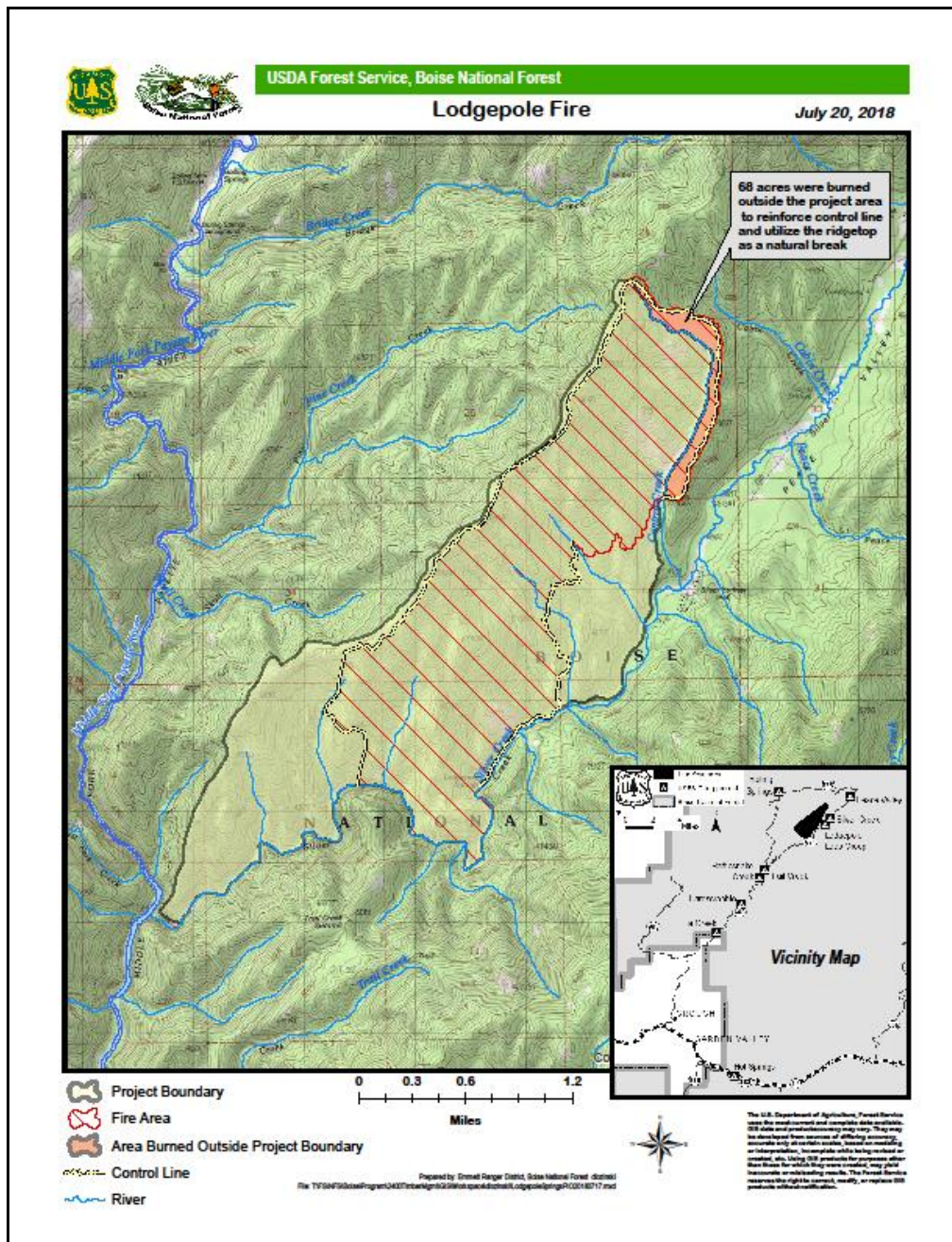


Figure 4. The IHC burn out plan.

## Wildfire Declaration

Initially, there was a reluctance to declare a wildfire. From the Regional Office down to the District Ranger, there was hope that the prescribed fire could be held within its boundaries and “put to bed.” There are repercussions associated with converting a prescribed burn to a wildfire, both perceived and actual. To most, “wildfire declaration” and “escaped prescribed burn” are synonymous. The public often equates this even further, to an out-of-control fire, and an indication that the Forest Service doesn’t know how to do their jobs. In communities that



are already frustrated with smoke and fire, year after year, it brings greater resistance to future prescribed burning.

In the *Interagency Prescribed Fire Planning and Implementation Procedures Guide* (PMS 484) a prescribed fire must be declared a wildfire when:

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

In the Lodgepole prescribed fire case, the burn had not “escaped” outside the project boundary but it was likely to do so, and it was no longer within the original parameters of the plan. There was urgent need for additional resources and the administrative flexibility to support local firefighting resources.

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*“Everyone goes to ‘escaped prescribed fire’, but it wasn’t an escape. It didn’t escape. We put fire outside the project area to keep the fire in check as a suppression action.”*  
– Forest Fuels Personnel

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Internally, having to declare a prescribed fire a wildfire has developed a stigma in the wildland fire community as an event that can leave a black mark on an individual’s record for the rest of their career. “Nobody wants that on their record,” or “Now my name is on it,” reverberated in many of the conversations. One of the fire staff commented that it was a shame for this to happen at this stage of the District Ranger’s career. In this case, there was additional pressure on Forest and District leadership because there had been a recent prescribed burn declared a wildfire in the Region; that wildfire had resulted in loss of a structure and other impacts to private infrastructure.

The comments from those personnel “closer to the ground” (ie resources physically working on the fire) tended much more in favor of converting the prescribed burn to a wildfire. Converting

*“We declared it a wildfire primarily because of challenges getting resources and managing the fire... that wasn’t a fire.” –District Ranger*

to a wildfire would allow for the use of a “P-Code” and this would allow more resources, such as aircraft, to be brought in and also give much greater flexibility to support those managing the fire.

In the end, with the situation as it was, it became evident that conversion to a wildfire was the appropriate decision. It was commented by the Forest FMO that, “We don’t want to back down from projects like this in the future. We just want to learn from it.”

## **Conclusion**

In conclusion, the FLA Team would like to thank all of the contributors to this report. We appreciate Forest Leadership's desire to learn from this situation and the willingness of all interviewees to share their story.

## **LESSONS LEARNED**

These lessons were learned at all levels of personnel involved with the declared wildfire.

### **Business Practices**

- If there are no changes made to business practices, prescribed burn bosses and line officers may be forced to convert prescribed fires to wildfires due to resource needs, rather than based on guidance in the Prescribed Fire Guide.
- Other than emergency situations, food or lodging can't be purchased by local purchasing agents using project codes. However, a warranted contracting officer can make these purchases with the appropriate justification from the Line Officer.
- Prescribed fire business practices are vastly different from wildfire business practices, which can create confusion. The use of interagency resources, supplies, regular procurement, and (Administratively Determined) AD's are available on wildfire, but not when managing a prescribed fire.
- Agreements are necessary in order for Dispatch to properly support an incident using prescribed fire business practices. Without these agreements, the ability to fill interagency resources, supply orders from the cache, or to utilize aircraft, is extremely limited.

### **Burn Plan**

- When burn block boundaries and project boundaries are the same, it limits the ability of contingency actions and the probability of success with the least amount of necessary risk to firefighters. This needs to be considered in both the NEPA and burn plan.
- Control features were not adequate for the duration of time the fuels were expected to be burning. The Lodgepole prescribed fire plan was to utilize snow, ridgelines, rock scree, and riparian areas as control features. These features weren't adequate for the duration of the extended burn.
- This burn plan was not written, or anticipated, to be a long-term fire management tool. (The prescribed fire was managed for 80 days as a prescribed fire, utilizing Rx overhead in key roles.) The Prescribed Fire Guide (pages 30-33) discusses considerations for preparing holding plans and contingency plans for long-duration prescribed fire events.

## **Communication**

### ***Internal***

- Actings upon actings make communication difficult and continuity on long-term events challenging. (In the period between ignition and declaration, the Forest had a series of actings in the following roles; Forest Supervisor, Deputy Forest Supervisor, Forest Fire Management Officer, Forest Public Affairs Officer, District Fire Management Officer, and Forest Agency Administrator.)
- The longevity of the incident and distance between the various units (District, SO, and RO) created knowledge and understanding gaps between different levels of the organization. For example, some individuals at the higher levels of the organization were operating under the premise that the prescribed burn was an escaped fire.
- The period between ignition and declaration was confusing and challenging. Ground personnel felt like they were working on a wildfire. While some leaders may have recognized this, it continued to be managed as what it was: a prescribed fire. Ensuring that there is a strong message of operational leader's intent may reduce confusion especially for resources doing the work on the ground.

### ***External***

- The communication plan was designed for the ignition days and not for a long duration event. Two months' time had lapsed since initial communication occurred with the public, and therefore some believed the Forest had ignited a new prescribed fire.
- When managing a long-term prescribed fire, thinking tends to stay "within the box." The District did not communicate increased smoke activity to the public because the burn had not gone outside of the project area.
- The PIO assigned to a fire could be the default lead for incident information if they have the necessary qualifications. This would ensure that the most up-to-date and accurate information is disseminated.



## **Further Considerations**

- Assessing risk on an incident changes over time by complexity, external influences, and changes to the environment. Conditions are not static, but evolve over time and space. For example, Lodgepole Springs project area is dominated by steep, rocky slopes. The plan was designed to keep firefighters out of the project area, to minimize risk; for 74 days after the burn was ignited, personnel worked hard to accomplish this. As conditions and external factors changed, the situation was re-evaluated, and it was felt that the risks of putting firefighters on the ground were acceptable.
- There is a stigma around declaring a wildfire and that in turn can affect management decisions. This stigma needs to be recognized and addressed when the situation arises that a prescribed fire needs to be declared a wildfire.
- Not declaring the Lodgepole prescribed burn a wildfire limited the planning and capability of both fire managers and resources. As duration and complexity increased, the organization and tactics remained static, following the burn plan.
- Business practices that allow for support of resources on prescribed fires and other projects with similar needs should be widely shared and perhaps included in trainings such as Burn Boss Refresher.

## **FACILITATED LEARNING ANALYSIS TEAM**

**Joe Alexander:** Team Leader, Director RLMHW, R1, Regional Office.

**Eric Zanotto:** Lead Facilitator, Fire Management Officer, R2, Pikes Peak Ranger District.

**Jeff Sanocki:** Subject Matter Expert (SME), Fuels Specialist, R4, UWC NF, Ogden Ranger District.

**Preston Ley:** Subject Matter Expert (SME), Fire Operations Coordinator,  
Lone Peak Conservation Center, UT.

**Michelle McCammon:** Writer Editor, Wildlife Biologist, R4, Ditch Bill Team, Regional Office.

**Christina Anabel:** Writer Editor Shadow, Fire Technology Transfer Specialist, R2,  
Rocky Mountain Research Station.

**Terry Swinscoe:** Remote Coach, R4, Regional Office, Risk Management.

## APPENDIX A: DECLARED WILDFIRE REVIEW

The [Interagency Prescribed Fire Planning and Implementation Procedures Guide, July 2017](#), states the following on page 39:

*“In addition to the common outcome review elements, the declared wildfire review must include the following analysis and may be addressed in a separate review:*

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

The above five factors are addressed in this review.

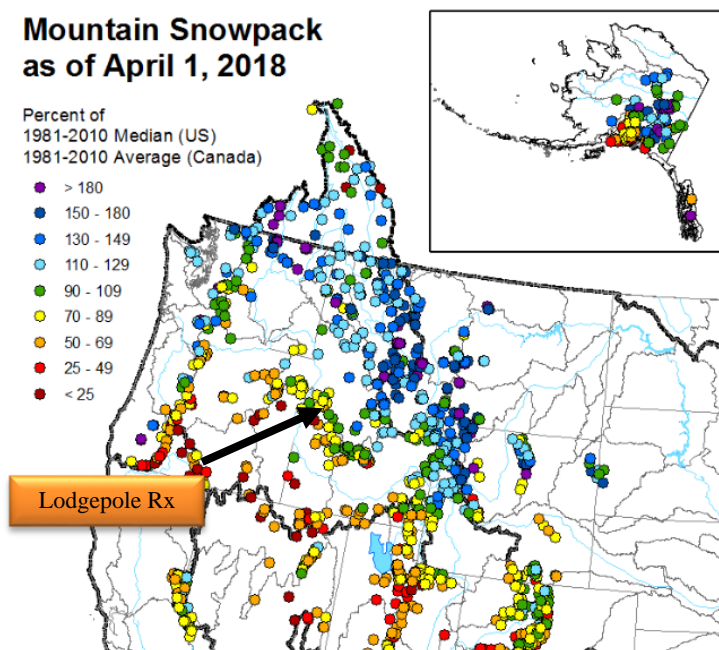
# **1. An analysis of the seasonal severity, weather events, and on-site conditions leading up to the wildfire declaration:**

The winter leading up to the April 24 and 25 ignition period had near normal precipitation amounts across the project area. The unit remained snow covered later in the spring, allowing limited road access to assess fuel conditions.

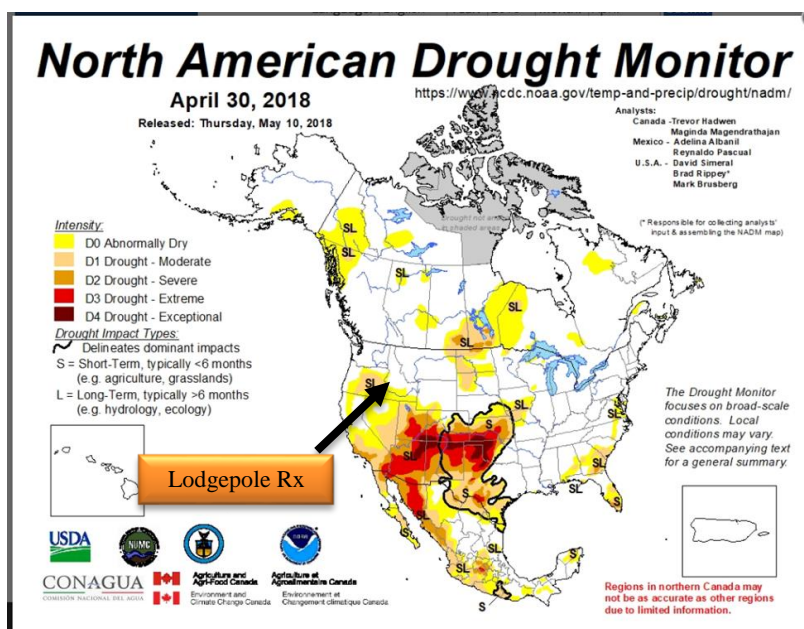
## **Mountain Snowpack as of April 1, 2018**

Percent of  
1981-2010 Median (US)  
1981-2010 Average (Canada)

- > 180
- 150 - 180
- 130 - 149
- 110 - 129
- 90 - 109
- 70 - 89
- 50 - 69
- 25 - 49
- < 25



**Figure 1. Snow accumulation for the approximate area leading up to the April 24th ignitions.**



**Figure 2. The prescribed fire unit lies near the edge of abnormal drought and near normal conditions.**



Energy release component values on ignition days were near maximum values for that time of year. Values decreased to below average through the end of May when significant precipitation occurred over the burn unit. This extended precipitation limited the consumption in the heavy fuels, causing pockets of heat to carry over into the hotter and drier summer months. ERC values rebounded from mid-June to present, returning back to historic maximum levels with the warmer drier summer conditions.

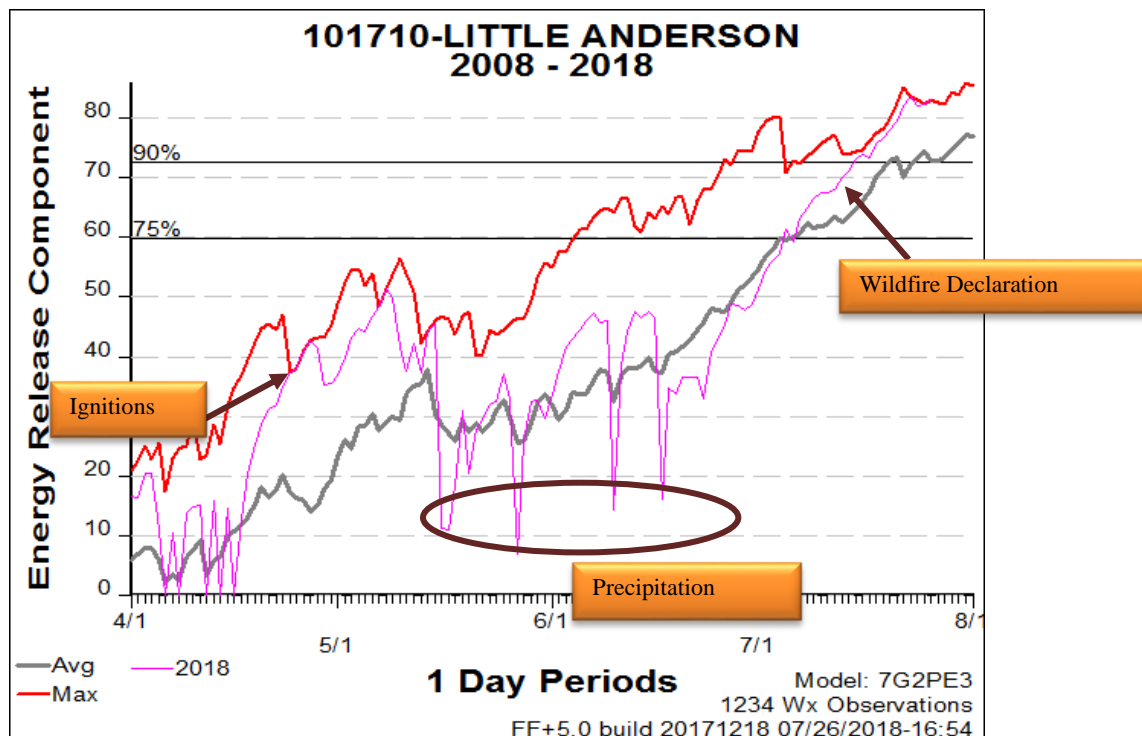


Figure 3. Little Anderson RAWS ERC data 4/1/2018-7/26/2018.



#### Precipitation

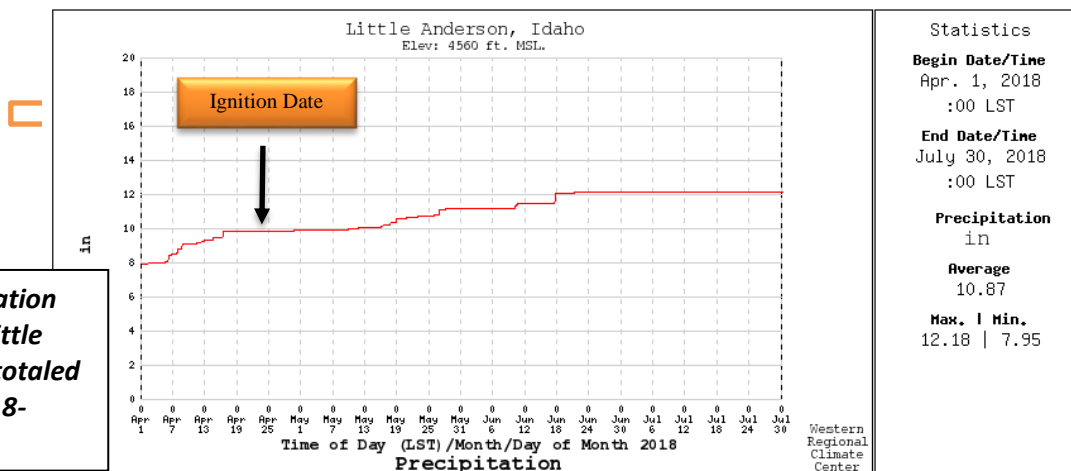


Figure 4. Precipitation amounts at the Little Anderson RAWS totaled 2" from 4/24/2018-6/18/2018.

## **2. An analysis of the prescribed fire plan for consistency with agency policy and guidance related to prescribed fire planning and implementation:**

The Lodgepole Springs Restoration Underburn Burn Plan was presented to the FLA team for review. The burn plan was written using the 2017 NWCG Prescribed Fire Plan PMS 484-1 Interagency Template. National and Regional guidance requires burn plans to contain at a minimum, the same 21 elements and supporting appendices.

The Lodgepole Springs Burn Plan met all 21 elements and supporting appendices as outlined in the *Interagency Prescribed Fire Planning and Implementation Procedures Guide* (PMS484).

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

Utilizing the required 21 elements and appendices from the 2017 Prescribed Fire Planning and Implementation Procedures Guide, this section will analyze implementation of the Lodgepole Springs Prescribed Fire Burn Plan.

**1. Burn Plan Signature page:** Implementation was consistent with the actions and procedures identified in the burn plan; plan was signed by qualified individuals on April 12, 2018.

### **2. Agency Administrator Ignition Authorization:**

**2a:** Met burn plan standards. Signed and dated by current District Ranger (agency administrator).

**2b:** Prescribed fire Go/No GO was signed and dated for both ignition days.

**3. Complexity Analysis Summary:** Met burn plan standards. Final complexity for the burn plan rated as "Moderate."

**4. Description of Prescribed Fire Area:** Met burn plan standards.

**5. Objectives:** Met burn plan standards.

**6. Funding:** Did not meet burn plan standards. The plan allocated \$26,000 which was exceeded due to the long duration of the project.

**7. Prescription—Prescription Narrative and Prescription Parameters:** Met burn plan standards.

Based on a portable RAWS set up near the burn units and onsite data from the second day of ignitions, the Lodgepole Springs Rx was within prescription on all environmental parameters.

Spot weather forecasts predicted environmental conditions to be in the desired fire intensity level. Onsite fire weather data from day two place the burn in high fire intensity level. The burn was staffed at the desired fire intensity level.

	Temp	RH	Winds	Fuel Moisture
Burn Plan Prescription	50-80	15-30	0 - >8 any direction	<8 - >12% 10hr
Spot Wx 4/24/18	60-65	19-24	Light upslope 2-4, ridgeline SE2-8	
Portable RAWS 4/24/2018	66	16	4 mph, variable/upslope	7.6% 10hr
Spot Wx 4/25/2018	67-72	19-24	East 4 , becoming West 4 mph	
Portable RAWS 4/25/2018	68	19	5 mph southerly	7.4% 10hr
Onsite Wx 4/25/2018	73	18	0-1 mph	

**8. Scheduling:** Met burn plan standards. Ignitions were planned to last 1-3 days and patrolled/monitored until declared out.

**9. Pre-Burn Considerations and Weather:** Met burn plan standards. Appropriate Idaho State smoke approvals were obtained prior to ignition.

**10. Briefing:** Met burn plan standards. Documentation contained a detailed IAP used in the burn day briefing.

**11. Organization and Equipment:** Met burn plan standards. The burn was staffed at the desired fire intensity based off of the predicted spot weather forecast. Actual burn day weather observations the second day were in the high fire intensity range.

**12. Communication:** Met burn plan standards.

**13. Public and Personnel Safety, Medical:** Met burn plan standards.

Two separate medical extractions occurred on the burn two months after ignitions. The medical plan was sufficient to provide patient care and extraction/ transport.

**14. Test Fire:** Met burn plan standards.

**15. Ignition Plan:** Met burn plan standards.

**16. Holding Plan:** Did not meet burn plan standards.

The burn plan stated a plan will be developed that is adequate for current and future weather, fuel, and smoke conditions.

Operating at this length of time under a prescribed fire organization proved to be inadequate to meet the long-term needs of this incident.



**17. Contingency Plan:** Met minimum burn plan standards.

The burn plan had one MAP to address resources and actions needed to suppress a fire outside of the burn unit boundary. The fire did not spread on its own outside of the boundary.

Upon review, minimum standards should be elevated to meet incident needs at the high end and low end of prescription. Strategic contingencies can be used to address long term needs of the prescribed fire to include smoke, fire outside unit, and not meeting objectives. In Rx Guide PMS484 Guide page 33 and Appendix B, documentation exists to aid in long-term and contingency plan writing.

**18. Wildfire Declaration:** Met burn plan standards.

The Lodgepole Springs Rx was declared a wildfire by the Agency Administrator (District Ranger) 80 days after initial ignition based on the second bullet in the burn plan, “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.”

**19. Smoke Management and Air Quality:** Met burn plan standards. Appropriate Idaho State smoke approvals were obtained prior to ignition for the two ignition days.

**20. Monitoring:** Met burn plan standards.

**21. Post-Burn Activities:** Met burn plan standards.

**Appendix A: Maps:** Met burn plan standards.

**Appendix B: Technical Review:** Met burn plan standards.

**Appendix C: Complexity Analysis:** Met burn plan standards.

**Appendix D: Agency-Specific Job Hazard Analysis or Risk Assessment:** Met burn plan standards. Signed by District Ranger, April 2018.

**Appendix E: Fire Behavior Modeling Documentation or Empirical Documentation:** Met burn plan standards.

**Aviation Safety Plan:** Met burn plan standards. Project Aviation Safety Plan was current and signed prior to implementation. Aerial PSD ignitions were utilized to ignite the units on both days.

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

The Agency Administrator had been delegated authority from the Forest Supervisor on 3/13/2018 in the *Annual Prescribed Fire Plan Approval Authority* letter to approve Low to Moderate prescribed fire burns and plans. The AA attended LFML – M581. The Agency Administrator was involved throughout the approval of the burn plan, and signing of the Complexity Analysis, Ignition Authorization, and the wildfire declaration.

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

All key fire personnel were qualified in the positions for which they were assigned according to current IQCS records.

<b><u>Assigned Position</u></b>	<b><u>Qualified Yes/ No</u></b>
Agency Administrator	Yes
RXB2	Yes
RXB2 trainee	Yes
FIRB	Yes
Holding (SRB)	Yes
Tech reviewer (RXB2)	Yes
Burn Plan Preparer (RXB2)	Yes