NW Malheur Becker FFR Pile Prescribed Fire Wildfire Declaration Review

Bureau of Land Management Vale District Malheur Field Office 2021



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Executive Summary:

On April 27, 2021, the Bureau of Land Management's (BLM) Vale District Fire and Fuels Management Unit conducted a prescribed pile burn on public land in the Malheur Field Office that resulted in an escape, which was subsequently declared a wildfire per direction of the agency administrator and the FMO. Resources that were planned to check the prescribed burn discovered the escaped wildfire the morning of April 28, 2021 and the spread had mostly been stopped on its own overnight. The wildfire was contained at 5.75 acres that burned outside of the burn unit onto adjacent private land. As per the 9214, ensuring adequate, proper review of all prescribed fires declared a wildfire with significant burned area on private or other agency lands, or an estimated expenditure of up to \$250,000 for suppression and/or property damage. It was deemed necessary by the AA and FMO to declare it a wildfire based on the burned area on private lands. As per the *Interagency Prescribed Fire Planning and Implementation Procedures Guide* (PMS 484), "All prescribed fires declared a wildfire with appropriate level Agency Administrator. The level and scope of the review will be determined by agency policy." This review is in response to that requirement.

The escaped prescribed fire review team was given a delegation of authority from the Vale Field Manager, Malheur Field Office on 5-3-2021. The delegation of authority directed the review team to evaluate the circumstances associated with the planning and execution of the Becker FFR Pile Prescribed Fire, and determine whether policy, guidance, and procedures were followed.

The review team analyzed available information to determine:

- If the prescribed Fire Plan was adequate.
- If the prescription, actions, and procedures set forth in the plan were followed.
- If overall policy, guidance, and procedures relating to prescribed fire operations are adequate and being followed.
- Whether or not prescribed fire training and experience of personnel involved were commensurate with required standards.
- Actions that should be implemented immediately to prevent similar future occurrences using the principles and cultures of high reliability organizing.

The review team determined that the Jackpot/Pile Programmatic Burn Plan did not meet all the requirements to implement pile burning within the Becker FFR cutting project units of the Malheur Field Office, since the new complexity guide that was required to be in place by January 2020, had not been reviewed and signed by an Agency Administrator. The new complexity guide can be found at https://www.nwcg.gov/publications/424-1. The review team does not believe that this oversight was the determining factor in the escape. The review team confirmed the project's National Environmental Policy Act (NEPA) compliance, including the NW Malheur County Greater Sage-Grouse Habitat Restoration Project Planning Environmental Assessment (EA). The proposed action and project objectives were carried forward from the EA to the Jackpot/Pile Programmatic Burn Plan. The Burn Plan and Prescribed Fire Complexity were analyzed similar to the Technical Review Process utilizing the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (PMS 484) and the Prescribed Fire Complexity Rating System Guide (PMS 424 and PMS 424-1). This is when the discovery of the old Complexity Analysis was still being used rather than the new Complexity Analysis. Other guidance or policy manuals utilized during analysis includes Chapter 18 of the Interagency Standards for Fire and Aviation Operations for 2021, BLM Fuels Management Manual 9214 and Handbook 9214-1, Chapter 5, 2020.

Background:

The NW Malheur Becker Federally Fenced Rangeland (FFR) Pile Rx is located approximately 15 miles west of Westfall, Oregon on BLM-managed public lands. The treatment target area consists of 4,004 acres of juniper hand and machine piles with some open areas of perennial grass and invasive cheat grass. The Becker FFR treatment area was the unit burned and under consideration for this review. The prescribed fire plan used for this treatment was the "Vale District Jackpot/Pile Programmatic Burn Plan", which covers all pile burning operations within the Vale District Malheur and Baker Field Offices. The resource management objective was to "…Reduce western juniper density, reduce hazardous fuels, reduction of live Juniper density by 70 percent, reduction of three inch or larger diameter fuels generated by the cutting by a mean total of 50%. The prescribed fire objectives were to 1) Provide for firefighter and public safety; 2) Reduce fuel loading within the project area by a minimum of 50%; 3) Achieve greater than 90% consumption of individual piles; 4) Minimize flame lengths to reduce mortality of adjacent over story or resource value; 5) Minimize fire intensity to reduce soil damage".

The Vale Fire/Fuels Programmatic Pile Burn Plan was completed on October 15, 2015 by the Fuels Technician – Prescribe Burn Boss Type 2 (RXB2) Trainee and was rated a Low Complexity. The technical review was completed by the United States Forest Service (USFS) Fire Operations Specialist - Prescribe Burn Boss Type 1 (FOS, RXB1) October 30, 2015. The Malheur Field Manager reviewed and approved the plan on February 17, 2016 as well as the Vale District Fire Management Officer (FMO) January 22, 2016. The Annual Burn Plan Update/Review was completed on October 11, 2019 with a review by the Vale District Acting FMO on October 11, 2019 and Acting Malheur Field Manager October 11, 2019.

The Agency Administrator Ignition Authorization for burning between November 9,2020 and May 30, 2021 was signed by the Agency Administrator on November 6, 2020.

Purpose of the Review:

The goal of the wildfire declaration review process is to learn from the event so as to guide future program actions and/or preventing future wildfire declarations from occurring. This will be accomplished by gathering knowledge and insight for incorporation into future resource management and prescribed fire planning.

The objectives of the review are to:

- Determine if the Prescribed Fire Plan was adequate for the project and complied with policy and guidance related to prescribe fire planning and implementation.
- Determine if the prescription, actions, and procedures set forth in the Prescribed Fire Plan were followed.
- Describe and document factual information pertaining to the review.
- Determine if overall policy, guidance, and procedures relating to prescribed fire operations are adequate.
- Determine the level of awareness and the understanding of the personnel involved, in regard to procedures and guidance.

Specific Agency Administrator Requests are listed above in the Executive Summary and are essentially the same objectives listed above under Purpose of the Review, so all items will be addressed in the Compliance section of this review.

Results

Fire Narrative: On April 27, 2021, the Bureau of Land Management's (BLM) Vale District Fire and Fuels Management Unit conducted a prescribed pile burn on public land in the Malheur Field Office that resulted in

an escape, which was subsequently declared a wildfire per direction of the agency administrator and the FMO. Resources that were planned to check the prescribed burn discovered the escaped wildfire the morning of April 28, 2021 and the spread had mostly been stopped on its own overnight. The wildfire was contained at 5.75 acres that burned outside of the burn unit onto adjacent private land.

Chronology of Events: This chronology is summarized from the Prescribed Burn Boss's chronology and first on scene resource chronology submitted during the team review. Actual weather observations are a compilation of high and low values from the Kelsey Butte RAWS.

Saturday, April 24, 2021 (Day before the burn)• 0900 Burn Boss enroute to check bu site1030 arrived on burn site (received light rain, and high winds).• 1230 Returned to Vale and prepared equipment for the burn.1230 Returned to Vale and prepared equipment for the burn.• 1800 submitted spot forecast for tomorrow burnSunday, April 25, 2021 (Day 1 of the Burn)• 0700 briefed crew on weather and burn objectives for the next 3 days • 0730 crews enroute to project site • 0950 crews arrive on burn site • 0957 started test fire • 1005 Test fire meeting objectives continued with ignitions.1550 completed ignitions for the da Completed 175 acres.• 1656 crews leaving project enroute back to Vale1930 RXB2 submitted spot weather for tomorrow burn• 0700 crews enroute to project site • 0945 started test fire • 0945 crest fire meeting objectives continued with ignitions.1530 completed ignitions for the da Completed 110 acres.• 0700 crews enroute to project site • 0945 started test fire • 0956 Test fire meeting objectives continued with ignitions.1530 completed ignitions for the da Completed 110 acres.• 1625 crews leaving project enroute back to Vale1930 submitted spot weather for tomorrow burn• 1930 submitted spot weather for tomorrow burn	Weather	Fire Behavior
 25, 2021 (Day 1 of the Burn) burn objectives for the next 3 days 0730 crews enroute to project site 0950 crews arrive on burn site 0957 started test fire 1005 Test fire meeting objectives continued with ignitions. 1550 completed ignitions for the da Completed 175 acres. 1656 crews leaving project enroute back to Vale 1930 RXB2 submitted spot weather for tomorrow burn Monday, April 26, 2021 (Day 2 of the Burn) 0700 crews enroute to project site 0940 crews arrive on burn site 0956 Test fire meeting objectives continued with ignitions. 1530 completed ignitions for the da Completed 110 acres. 1625 crews leaving project enroute back to Vale 1930 submitted spot weather for 	Max temp 50-55 Min RH 42% - 47% Winds SW 3-8 in the morning	N/A
 26, 2021 (Day 2 of the Burn) 0940 crews arrive on burn site 0945 started test fire 0956 Test fire meeting objectives continued with ignitions. 1530 completed ignitions for the da Completed 110 acres. 1625 crews leaving project enroute back to Vale 1930 submitted spot weather for 	Max temp 50 Min RH 41% Winds SW 9-10 mph with gusts 21	 -Residual heat in piles; spread contained to radiant ring. -Machine pile heat did see active creeping but nothing of concern with folks on scene -Smoldering heavy fuels -Not active creeping when leaving unit for the night. -Scattered rain showers in the area
	Predicted for Monday: Mostly cloudy with scattered rain and snow showers. Max Temp 43-48 Min RH 40-45 Winds N 6-12 mph with gust to 18mph Actual: 100% cloud cover and snowing all day. Max Temp 42 Min RH 100% Winds NNW 8-10 mph with gust of 16 mph With 1 inch accumulation of snow on the ground. Predicted Spot Wx Forecast for	 -No spread outside of piles due to actively snowing -Flame lengths commensurate with normal pile burning operations -Received precipitation (snow) all day throughout the burn -Residual heat in piles; spread

27 2021	1000	Mondow	noticeable anne 1 1 C
27, 2021 (Day 3 of the	 1000 crews arrive on site 1018 started test fire 	Monday: Mostly clear and sunny	noticeable spread outside of pile radiant ring.
Burn)		Max temp 53-58	phe faciant fing.
Dulli)	• 1027 Test fire meeting objectives continued with ignitions.	Min RH 33% - 38%	-Suppression fire in the grass
Yellow indicates	 1207 RXB2 received radio transition 	Winds NW 7-10 with guest to 15	Suppression me in me grass
the time period	from other burn group that they have	in morning then diminishing by	-Smoldering heavy fuels
that the fire most	stopped ignitions due to fire creeping	noon.	5,
likely escaped.	from piles and felt if they continued		-Monitored and secured piles
v 1	would create bigger issues.	Actual:	that were lit from stopping
	 1210 RXB2 started to notice that the 	Clear and sunny	ignitions until 1530
	piles they started with early in the	Max Temp 57	
	morning were starting to creep and	Min RH 30%	
	make runs in the grass. RXB2 decided	Winds NNW 3- 6 mph with gust	
	to stop ignitions and contain the fire.	14 mph.	
	• 1213 RXB2 notified dispatch that they		
	have stopped ignitions for the day due	Kelsey Butte RAWS:	
	to fire movement in the grass.	1000- Temp 46, RH 53%, Winds	
	• 1215 monitored and patrolled the area	NE 6 with gusts to 18.	
	that had active heat.	1100- Temp 49, RH 48%, Winds NE 4 with gusts to 14.	
	 1623 crews leaving project site 	1200- Temp 49, RH 44%, Winds	
	enroute back to vale. Completed 21	N 5 with gusts to 16.	
	acres.	1300- Temp 51, RH 40%, Winds	
		NW 4 with gusts to 14	
		1400- Temp 54, RH 33%, Winds	
		SW 3 with gusts to 14	
		1500- Temp 57, RH 30%, Winds	
		ENE 4 with gusts to 14	
		<mark>1600- Temp 54, RH 28%, Winds</mark>	
		NW 12 with gusts to 23	
		<mark>1700- Temp 54, RH 33%, Winds</mark>	
		NW 7 with gusts to 17	
		1800- Temp 52, RH 36%, Winds	
		NW 6 with gusts to 13	
		1900- Temp 50, RH 43%, Winds	
		SW 1 with gusts to 7 2000- Temp 47, RH 47%, Winds	
		NNW 1 with gusts to 6	
Wednesday,	• 0830 E3646 (crew of 2) with UTV	Predicted for Wednesday:	Before Declaration of
April 28, 2021	enroute to check Becker FFR Pile	No spot weather forecast, or	Wildfire:
(Day 1 after burn	Burn	general forecast requested.	-Continued smoldering in
when fire on	• Upon patrol the burn the engine crew	Max temp 62-67	heavy fuels
private land was	noticed a 5-acre slop over onto	Min RH 23% - 28%	
discovered)	private.	Winds light and variable less than	
	• 1245 Landline placed to duty officer	5 mph.	After Declaration of
Wildfire was	for guidance on proper protocol for		Wildfire:
Declared soon	reporting and documentation.	Actual:	-5 acre spot discovered on
after the	• Ordered resources from previous day	Clear and Sunny	private. Primarily in grass. Perimeter immediately walked
discovery that the	to assist with mop-up operation and	Max Temp 65	and mapped, no heat along
fire burned onto	eliminate threat to adjacent private	Min RH 27%	edges, 2 trees interior burning.
private. All Wildfire	land.	Winds WNW 10-12 mph with	cages, 2 nees interior ourning.
Declaration steps	• Requested all crew to bring out UTV	gusts to 19 mph	-Several spots within the Rx
DOUATATION STODS	w/slip tanks and drip torches.		unit where grass around piles
			would show movement
were followed	• Crews were divided up upon arrival		would show movement
were followed and the proper	between four different drainages that		
were followed and the proper notifications	between four different drainages that had burnt piles in them adjacent to		throughout the day.
were followed and the proper	between four different drainages that		

notified.	 1900 requested 10 person SRV crew to assist with on-going mop-up operations for the day. Resources continued mopping up until 2000 before being released to Vale. Fire contained at 2100. 		 pose threat to BLM and private boundary. -1745 discovered another spot north of original escape that had burned onto private. Walked and mapped at ³/₄ acre. No heat no smokes discovered. -1900 smoke column coming from South Studhorse Unit burned on Sunday April 25th. Fire moving from burnt piles in the grass into other downed heavy fuels.
Thursday, April 29, 2021 (Day 2 after burn)	 Resources brought on at 0700 and briefed on areas of concern to be mopped up. Pickups with UTVs, two engines, and SRV Module+10 Crews from previous shift went back to same locations to continue mopping up and securing edge, SRV resources to South Studhorse unit to address issue discovered previous evening. UTVs with slip tanks heavily utilized to transport water to inaccessible areas. Crews continue working until 1800 and released back to Vale. 	Observed Weather: Time 1200 Sky Weather Clear Dry Bulb 70 Wet Bulb 52 RH 36 Dew Point 40 Winds 1-3 variable Spot Forecast Temp 74-78 RH 16-20 Winds 7-12 South increasing 9-14	After Declaration -Piles still smoldering and holding heat. -Minimal fire behavior. Few piles burned into grass with active flame and little spread
Friday, April 30, 2021 (Day 3 after burn)	 Resources back on at 0700 and briefed. Focus primarily on units that are directly adjacent to private lands once again. Resources continue mop up operations and further securing of edge. Released SRV Module from incident along with other resources at 1740. Weekend monitoring plan included a type 6 engine with UTV and slip tank, along with additional pickup UTV and slip tank. Total of 4 personnel for each day 	4/29 Spot Forecast Night Temp 46-50 RH 56-60 Winds 10 South Day Temp 72-77 RH 15-20 Winds 6-11 West increasing 11-16	After Declaration -Some piles still smoldering. Few visible smokes coming from piles. -Overcast day with constant wind.
Saturday, May 1, 2021 (Day 4 after burn)	 E 3646 w/ UTV plus pickup and UTV depart to incident approximately 0800. Check boundary and units for heat and smokes. None found at this time. Transfer of command to Morcom for following day. 	Observed Weather Fair amount of precipitation and temps in the 50s	After Declaration -No visible smokes or heat found within piles. -Decision to check one more time was made before calling it controlled.
Sunday, May 2, 2021 (Day 5 after Burn)	 E 3646 w/ UTV plus pickup and UTV depart to incident approximately 0800 Check boundary and units for heat and smokes. None found at this time Called controlled at 1600 		After Declaration -One interior smoke found and taken care of -Called controlled at 1600

Wednesday, April 27th

FMO and Private Landowner discussions via phone and follow-up email:

FMO let the private landowner know that Vale BLM was conducting a prescribed burn near some of his private land holdings near Bendire Ridge in Malheur County. They were burning Juniper piles yesterday (April 27) when the burn boss stopped the burn late morning early afternoon because they were getting creep outside of the piles. They stayed until they thought things were secure and then came back into Vale with a plan to go back out in the morning to check on things. So, when they got back out there in the morning, they found that the fire had actually escaped onto your private ground and burnt about 5 acres of grassland and some standing juniper on his private land. The FMO called and briefed him on the situation and on the potential of him filing a tort claim if he thought he needed to. The landowner stated to the FMO that he appreciated the communication and that he didn't believe anything else needed to happen and that he did not plan on filing a tort claim. The FMO let him know he still would have that opportunity if he decided to even though this email doesn't preclude him from doing this. This email is just a way to capture what the FMO and landowner talked about. So, the location of these five acres is Township 18S, Range 38E Section 25, latitude 43.97758° longitude 118.0105°. Once the FMO has a map and some pictures he will send another email with that information in it.

The FMO also asked the landowner to please let him know if he captured anything incorrectly and he would get it corrected.

Landowner response was that the information was correct. He appreciated the FMO and BLM letting him know and that a map would be handy. He is hopeful to get to that area in the next week or so and can stop by. But regardless of his visit he will not file a tort claim.

Photo Chronology:

Monday, April 26, 2021(Day 2 of the Burn) Photo 1



Monday, April 26, 2021(Day 2of the Burn) Photo 2



Monday, April 26, 2021(Day 2 of the Burn) Photo 3



Monday, April 26, 2021(Day 2 of the Burn) Photo 4



Monday, April 26, 2021(Day 2 of the Burn) Photo 5



Tuesday, April 27, 2021(Day 3 of the Burn) Photo 1



Tuesday, April 27, 2021(Day 3 of the Burn) Photo 2



Tuesday, April 27, 2021(Day 3 of the Burn) Photo 3



Tuesday, April 27, 2021(Day 3 of the Burn) Photo 4



Tuesday, April 27, 2021(Day 3 of the Burn) Photo 5



Wednesday, April 28, 2021(Day escape was discovered) Photos



Lessons Learned:

Lessons Learned from the Participants:

- Resources should have stayed on scene longer to make sure the boundary lines were secured.
- Burn along the BLM and Private land when weather conditions were more favorable.
- Not light the pile(s) that are right on or near the BLM/private land.
- Grazing the burn unit prior to the prescribed burn.

Lessons Learned from the Review Team:

- Stopped lighting sooner in the day, or possibly not at all due to the weather forecast and drier fuels.
- Resources should have stayed on scene longer to make sure the boundary lines were secured.
- Burn along the BLM and Private land when weather conditions were more favorable.
- Some piles were created right on or near the BLM/private land. These piles should have been excluded from the burn or moved further away before igniting.
- Grazing the burn unit prior to burning.
- Having an agreement with the private landowner to be able to burn on their land or potentially do thinning and piling treatments on their land. This would have not been declared a wildfire if this had been in place with this particular landowner.

Compliance:

1. Analysis of Seasonal Severity, Weather Events, And on-Site Conditions Leading Up To the Wildfire Declaration:

Seasonally the area had been experiencing drought conditions prior to the snow and rain that occurred just prior to starting the burn and the first two days of burning. By day 3, the snow had melted, and the fuels were drier as depicted in the photos on April 27. Winds the evening of April 27, according to the Kelsey RAWS, increased and changed direction about the time the crews were departing the unit for the day. Since no one was on scene after 1623 hours, the fire must have gotten into the grass and crept around enough to burn 5.75 acres onto private. The post fire escape photos of the private ground have the appearance of a mosaic low intensity burn that probably could have been easy to contain if resources remained on scene through the high wind period that lasted until around 1900 that evening.

2. Analysis of the Prescribed Fire Plan Consistency with Interagency Policy and Guidance Related to Prescribed Fire Planning and Implementation:

The Prescribed Fire Plan does not have the new Complexity Analysis that became a requirement in January 2020. The amendments to the current plan were done 10-11-2019 and signed by acting FMO and Acting Malheur Field Manager. The winter of 2020 (January) the Fuels Technician, and qualified RXB2, started a new Jackpot/pile programmatic burn plan to address all the amendments and new complexity analysis. He completed the draft in the spring (2020) for review. Due to vacancies and position being detailed the burn plan fell to the back burner and a review and signatures of the new burn plan that includes the new complexity analysis requirement has yet to be completed. All the other elements of the plan meet Interagency Policy and Guidance even though Element 7: Prescription, does say, "Do not burn under any conditions where fire can actively spread outside of

treatment unit." I think this section could be written better and have a table that shows a Prescription window for a high end of the prescription and a low end of the prescription. This would help heighten

the requirements in other elements under the high end of the prescription, such has the Organization and Equipment, Holding Plan, Mop Up and Patrol standards, etc.

3. Analysis of Prescribed Fire Implementation for Consistency with the Plans Prescription:

Element 7: Prescription, Element 8 Scheduling under constraints, and Element 16 Holding Plan need to interlink better and have clearer direction of what to do under a high-end prescription versus a low-end prescription. It leaves too much discretion for a burn boss or holding boss when these parameters could be more defined based on environmental conditions. For example, the burn prescription should describe what environmental conditions are within the prescription and break it down so a high- and low-end of that prescription is identified. This high- and low-end prescriptions should also be reflected within Element 11: Organization and Equipment, Element 15: Ignition Plan, Element 16: Holding Plan and Element 17: Contingency Plan.

4. Causal Agents Contributing to the Wildfire Declaration:

The main causal agent contributing to the Wildfire Declaration was resources leaving the unit too early in the day. The underlying causal factor may have been complacency or getting too comfortable with an established norm. Since the days prior, an established leave time of just after 1600 became normal, but it did not necessarily coincide with changing environmental conditions and observed fire behavior of creeping in the grass earlier in the day. So, just after the resources left, winds increased and changed direction. This provided the environmental parameters for the fire to get established in the grass and no resources were there to suppress it. From the post fire pictures, the fire appeared to be mosaic and have low fire intensity in which resources would have been able to suppress it at a smaller size. Having resources stay later in the day or overnight could have helped prevent the escape. Having resources return earlier in the morning the following day would help prevent more acres from burning if the escape fire were still spreading.

5. The Approving Agency Administrators Qualifications, Experience, And Involvement: Qualifications:

- AA for approximately 17 years
- Delegated as an AA for Type 1, 2 and 3 wildfires

Experience and Involvement:

As Agency Administrator (AA) for this project, he has followed the guidance for AAs per the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (2017). Some of those duties involved the following:

- Approved and signed the prescribed fire plan and understood the risks and benefits associated with it.
- Ensured that the prescribed fire plan met agency policy, and reflected the conditions specified in the project's NEPA decision.
- Ensured only trained and qualified personnel participate in planning and conducting the prescribed fire.
- Discussed the conditions under which the prescribed fire was to be conducted with the burn boss.
- Ensured that coordination with neighbors, cooperators and air quality regulators had occurred.

- Ensured all prescribed fires are conducted in accordance with the approved prescribed fire plan and established standards and guidelines.
- Ensured that the reported wildfire resulting from prescribed fires went through the chain of command.
- Provided for the timely declaration of prescribed fire as wildfire.
- Ensured prescribed fires declared as wildfires are reviewed according to established guidelines.
- 6. Qualification of Key Personnel Involved with the Prescribed Fire Planning and Implementation: Under the Interagency Prescribed Fire Planning and Implementation Procedures Guide (PMS 484), the preparation of the final complexity analysis and prescribed fire plan must be overseen, recommended, and signed by a burn boss qualified at the appropriate level. The burn plan preparer in 2015 was an RXB2 Trainee and a qualified RXB3, though it wasn't noted in the burn plan. The Prescribed Burn Plan was rated as a low complexity and required a qualified RXB3 as the prescribed fire plan preparer and this was the case, but it would be good to note that on the signature page. The burn boss that prepared that plan is now a qualified RXB2 since July 7, 2016 and was the same burn boss on the day of the escape on April 27th, 2021. This same prescribed fire plan was amended in 2019, and this would have been a good time to do a new technical review and have the signature page updated. Overall, the burn plan preparer and the burn boss, which was the same person, was qualified in regard to both requirements.

Recommendations:

- Discontinue the use of the existing prescribed fire plan. Move forward with completing a new prescribed fire plan with the new version of the complexity analysis along with all the required elements (located in PMS 484) of the plan technically reviewed and signed by a qualified burn plan preparer, FMO and Agency Administrator prior to any future burning related to this plan. Also, expand Element 16: Holding plan and the mop up and patrol plan section to include different levels according to forecasted weather and potential fire behavior. In this particular case, based on current weather and the dryness of the fuels, resources should have remained on scene until the wind speeds lowered or nighttime humidity's rose to a level that it was safe to leave. In some cases, resources may have to stay on scene through the night, especially when burning close to private lands that are not included within an agreement to do so. Returning even earlier in the morning the following day, due to proximity to private, is also recommended. Also, Element 7: Prescription, Element 8: Scheduling were not followed as described in the burn plan since the fire escaped onto private land. These sections, in particular, should be reviewed in the new plan to assure it follows the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (PMS 484).
- 2) Having an agreement with adjacent landowners to be able to burn on their property and possibly including their lands when doing treatments could alleviate some of the challenges when burning close to private lands that leave no room for error. In this case, a previous agreement allowing burning on private land would not have triggered a wildfire declaration.
- 3) Burn near private lands in ideal conditions, not towards the high end of a prescription.

- 4) Grazing the prescribed fire units prior to burning could minimize the dead fuel component and limit the probability for fire spread. Green up alone is not enough to keep fire from spreading under the conditions experienced in this review.
- 5) Hand and machine piles need to be a minimum of 25 feet from private boundaries, especially private lands that are not part of an agreement. This is a contract stipulation in the current IDIQ contract.

Actions to be Implemented:

Vale District:

The district must use the new Complexity Analysis (CA) that became a requirement January 1, 2020. The New CA is in the Interagency Prescribed Fire Planning and Implementation Procedures Reference Guide (PMS 484) and the Prescribed Fire Complexity Rating System Guide (PMS 424 and PMS 424-1) and must be used for all current and future burn plans. All burn plans must follow the PMS 484, PMS 424 and the PMS 424-1 otherwise they are not following national guidance and should not be used.

The new Jackpot/Pile Programmatic Burn Plan must comply with national guidance with all required elements including the new Complexity Analysis. By October 1, 2021, Vale District must provide the new prescribed fire plan or an update on the progress of the new prescribed fire plan to the OR/WA State Fuels Lead, Jason Simmons. Report to Jason Simmons when all the actions to be implemented are completed.

OR/WA State Office:

- Assure all Districts within Oregon and Washington are using the new Complexity Analysis.
- Emphasize the importance of agreements with private landowners for prescribed burning as well as other types of fuel treatments.

These can be topics at the next annual and/or monthly Fuels Meetings.

Appendices:

1. Maps







- 2. Prescribed Fire Plan (if necessary to support the review findings) Attached PDF of Prescribed Fire Plan in a separate document due to size of the document.
- Complexity Analysis
 Old Complexity Analysis is included in the Prescribed Fire Plan. A new Prescribed Fire Plan and a new Complexity Analysis meeting the current policy has been drafted and needs to technically reviewed and signed.
- 4. EA (if applicable)

The pertinent information from the EA in regard to goals and objectives is captured in the Background portion of this review and the burn plan does reflect these same goals and objectives.

- 5. Other Supporting Documentation (if necessary to support the review findings) Other supporting documents that will be attached in a separate document include:
 - a) Agency Administrator Ignition Authorization
 - b) Vale District Programmatic Pile/Jackpot Rx Fire Signature Page
 - c) Prescribed Fire Go/No Go Checklist
 - d) Test Fire Provisions and Results
 - e) Spot Weather and RAWs Station Weather
 - f) Escape Wildfire Costs
 - g) Burn Boss's Red Card Qualifications

Review Team Members:

Guy Chamness, OR/WA State Fuels Program Lead (Detail) and Prineville District Fuels Program Lead. Brenda Hallmark, R6 Regional Fuels Coordinator

Thanks to all those who helped from the Vale District including Pat Ryan, Tracy Skerjanec, Jonathon Dunbar, Justin Robinson, Austin Lattin and Jason Simmons.