South Overflow Wetlands Declared Wildfire Review

Bureau of Land Management

New Mexico

Pecos District

Roswell Field Office

2022

CONTENTS

Executive Summary

On April 7, 2022, at 1130 the Bureau of Land Management (BLM) Pecos District, Fire Management Program initiated a planned 330-acre prescribed broadcast burn on a portion of the South Overflow Wetland unit (type 2) on BLM public lands in the Roswell Field Office. After the fire escaped the planned prescribed burn boundary, the prescribed fire burn boss declared a wildfire, per direction in the burn plan and in consultation with the district fire management officer and agency administrator.

During the prescribed fire, a dust devil carried embers across the north control line that onsite resources were unable to contain. After determining the initial suppression actions were not going to be successful in containing the slop over and nearby structures were threatened, the decision was made to declare the South Overflow Wetland prescribed burn a wildfire. The prescribed burn was declared a wildfire at 1325 on April 7, 2022, approximately 2 hours after initiating the test fire. From this point, the declared wildfire was known as the Overflow incident. Suppression forces stopped forward spread of the Overflow incident early on the morning of April 8, 2022, and fully contained the wildfire on 0830 April 13, 2022, with the wildfire burning approximately 947 acres of private, 521 acres of state and 95 acres of BLM outside of the burn area. The Overflow incident was fully controlled April 17, 2022, with no additional change in size.

The Overflow incident is being reviewed for suppression expenditures and/or property damage for estimated costs exceeding $250,000 (MS-9214). The review team was directed to follow the procedures outlined in the Fuels Management and Community Assistance Handbook, 2020, H-9214-1, Appendix I: Wildfire Declaration Reviews, Report Template, Instructions, and the Interagency Prescribed Fire Planning and Implementation Procedures Guide, PMS 484 (July 2017). The declared wildfire (Overflow incident) review team was given a delegation of authority from the assistant director of fire and aviation on April 18, 2022. The delegation of authority directed the review team to evaluate the circumstances associated with the planning and execution of the declared wildfire and determine whether policy, guidance, and procedures were followed.

Purpose of the Review

The goal of the wildfire declaration review process is to learn from the event in order 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 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.
- If the 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 organizations.

Background

The South Overflow Wetlands prescribed fire is located approximately 10.5 miles southeast of Roswell, New Mexico on BLM-managed public lands. The prescribed fire treatment area consists of 570 acres which was broken into two burn units bisected by the Pecos River. Fuel in both units was comprised mostly of alkali sacaton (grass) and sparse salt cedar stands. The portion of the South Overflow Wetlands unit east of the Pecos River was burned on April 1, 2022, and accomplished 240 acres. The portion of the South Overflow Wetland unit west of the Pecos River is the portion of the prescribed fire ignited on April 7, 2022, and the area under review as a declared wildfire.

The Overflow Wetlands Prescribed Fire plan covers the entire planned prescribed fire area. The resource goals were to *"Reduce the risk of catastrophic wildfires by removing hazardous fuel loadings. Invigorating native grasslands that have become decadent, open up more wetland areas for waterfowl and shorebird use. Reduce Salt Cedar, exotic and invasive plants*". The prescribed fire objectives were to "*1) Reduce available fine fuels and litter by 60-80% immediately post burn; 2) Reduce standing Salt Cedar by 50-80% immediately post burn to open up the understory for a variety of grass, forbs and shrubs".*

The Overflow Wetlands Prescribed Fire plan was completed by the burn plan preparer on March 11, 2022, after incorporating edits from the technical review completed by the state office fuels specialist on February 15, 2022. The Pecos district fire management officer (FMO) reviewed and signed the burn plan on March 14, 2022, and the Roswell field office manager approved and signed the burn plan on March 28, 2022, as the agency administrator (AA).

An amendment to the Overflow Wetland Prescribed Fire plan was prepared and reviewed on March 25, 2022, and signed by the Roswell field office manager on March 28, 2022. The amendment addressed unit-specific details of the South Overflow Wetland unit. The agency administrator ignition authorization was signed by the Roswell field office manager on March 28, 2022.

Results

Fire Narrative:

On April 7, 2022, the BLM's Pecos district fire and fuels management unit conducted a prescribed broadcast burn on public land in the Roswell field office resulting in an escape, which was ultimately declared a wildfire after conversations between the burn boss and burn team followed with consensus from the Pecos district fire management officer and agency administrator. The burn team conducted a test fire in the northwest corner of the South Overflow unit. After an assessment of a successful test fire, ignition and holding crews continued to progress east along the mowed two-track fireline securing the north end of the unit. Operations were going as expected with the fire backing into the unit perfectly. The burn team secured and strengthened the north line and northeast corner with a 200-300 foot-wide blackline before burning down the eastern flank along the Pecos River.

The portion of the South Overflow unit on the east side of the river had been burned on April 1, 2022. During normal burn operations, a dust devil/fire whirl established in the interior of the burn and carried hot embers across the control line right at a critical holding point. This fire whirl caused mass ignition of fuels on the other side of the control line, which in turn, created unpredicted fire behavior due to strong gusty winds and multiple spot fires. **This was the leading causal factor resulting in the wildfire declaration.** With the increased erratic wind from the dust devil, the fire established itself in the tall grass and eventually salt cedar, spreading rapidly with high fire intensity. On site resources were not able to contain the fire and it was immediately apparent the fire was not "catchable." At 1325 on April 7, 2022, the escaped portion of the prescribed burn was declared a wildfire.

Chronology of Events:

A chronology was constructed from the prescribed fire burn boss' (RXB2) chronology submitted to the review team and Alamogordo dispatch center (ADC) WildCAD Incident Card NM-ROD 2022-88 and NM-ROD 2022-103 (see attachment 3). Weather observations are a compilation of onsite weather observations and observations from the Eight Mile Draw Remote Automatic Weather Station (RAWS) REMN5 located northeast of Roswell, NM. The REMN5 RAWS is the most representative weather station to the prescribed fire area, however it has shown to record slightly lower relative humidity (RH), higher temperatures and higher winds than on-site weather observations. All wind observations are for eye level winds. The highlighted timelines are associated with the prescribed fire events.

Figure 1: Overflow Fire Progression 4/7/2022-4/8/2022.

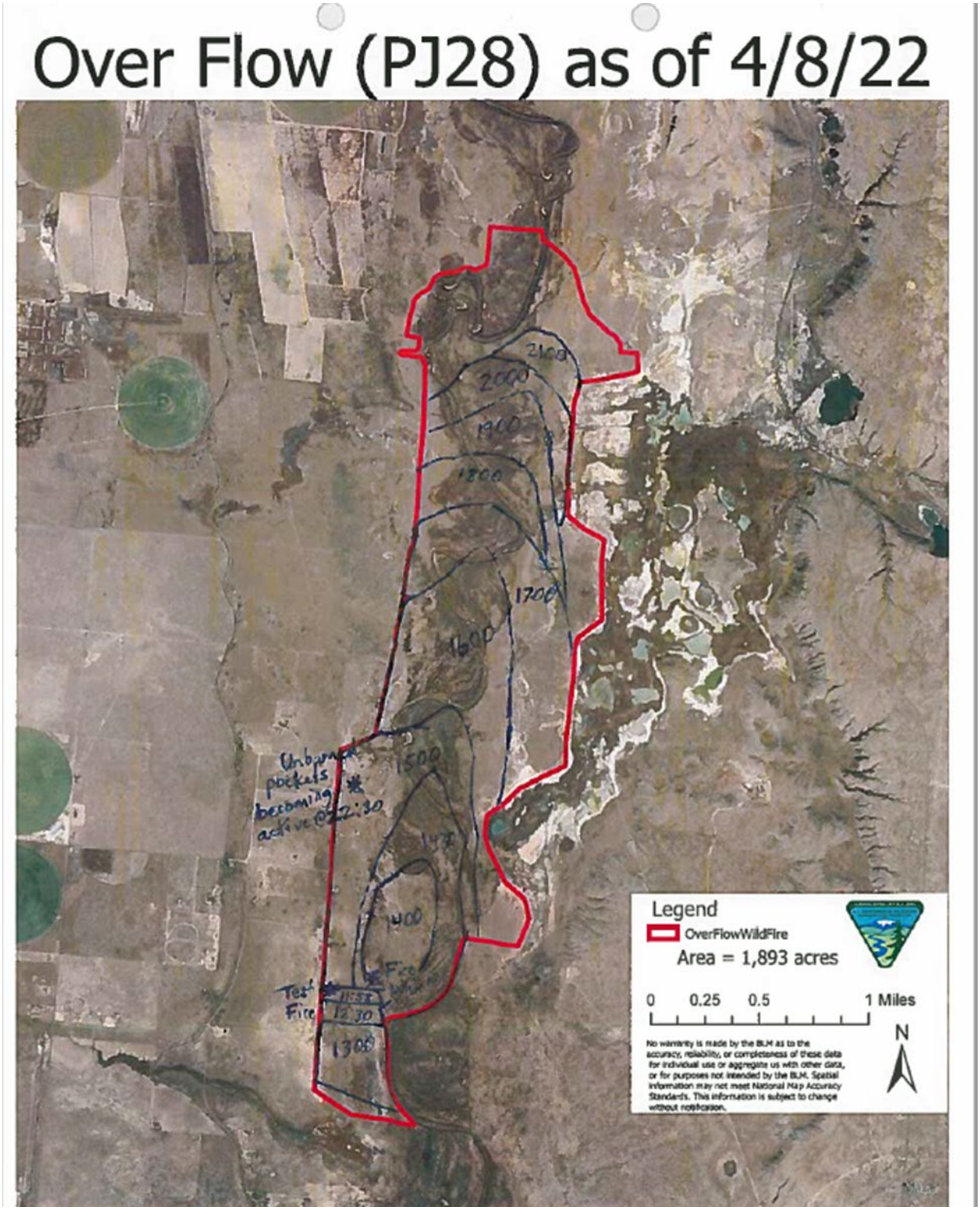


Figure 2: South Overflow prescribed burn fire behavior, backing fire.

Figure 3: South Overflow prescribed fire behavior at a critical holding point on the northeast corner.

Figure 4: South Overflow prescribed fire behavior, dust devil at critical holding point, on northeast corner.

Figure 5: South Overflow declared wildfire, fire behavior, Division Alpha, west flank.

Figure 6: South Overflow declared wildfire, private structure on west flank in proximity to wildfire boundary.

Commendations

1) **Command Presence and Action**: The review team highlighted the command presence and situational awareness of the prescribed fire burn boss at the time of the escape as well as the prescribed fire team's (overhead and resources) actions immediately after the escape. The quick assessment by the prescribed fire team, evaluating the threat of the escape to values at risk and the subsequent appropriate suppression response, likely averted the possible loss of private structures or further impacts to private property. Sound immediate suppression actions were crucial to containment of the wildfire.
2) **Relationships**: Throughout the review process it was very apparent the Pecos district and Roswell field office has a great working relationship with its cooperators, the local government and supporting agencies. Those relationships led to a seamless response when assistance was needed the most. In addition, the burn boss established relationships prior to the burn with adjacent landowners leading, in the review team's opinion, to the best possible outcome given the circumstances. The review team met with private landowners impacted by the burn who understood the fire danger and were appreciative of the clear communication and suppression response from the BLM.
3) **Internal Relationships:** Throughout the review process, it was very apparent there are strong positive internal relationships with the district manager and field office manager down

through to the fuels specialist and engine crews. From the time the review process started, the team was welcomed and supported. Management was very supportive and wanted to learn from the incident to strengthen the fuels program. District and field office management was very engaged, had a high level of ownership in the fire and fuels program, and were available for the review team throughout the planning, implementing and post incident phases.

4) **Management Support:** Throughout the escaped prescribed burn and wildfire declaration, the burn boss and all burn team members felt very supported from district management. Decisions were not questioned, instead were reinforced their decisions were correct, and management knew the risk and accepted it. District management's first question was "what can we do to help?"

5) **Commitment to Resilience:** The BLM Pecos district fire management program should be commended on maintaining a strong fire management program, especially considering staffing challenges - 18 out of 40 positions are vacant. There are several individuals currently in long term details, including the FMO and the fuels specialist. This strong leadership and willingness to wear multiple hats allowed the fire management program to be successful even with the high percentage of key vacancies.

6) **Communication and Acceptance:** Personnel who were interviewed were very open and honest about the events leading up to the escaped prescribed fire. Their willingness to openly share what occurred with the review team demonstrated their commitment to a preoccupation with learning from unexpected outcomes and ultimately their professionalism. Without this critical component, success in this review would not have been possible.

Observations

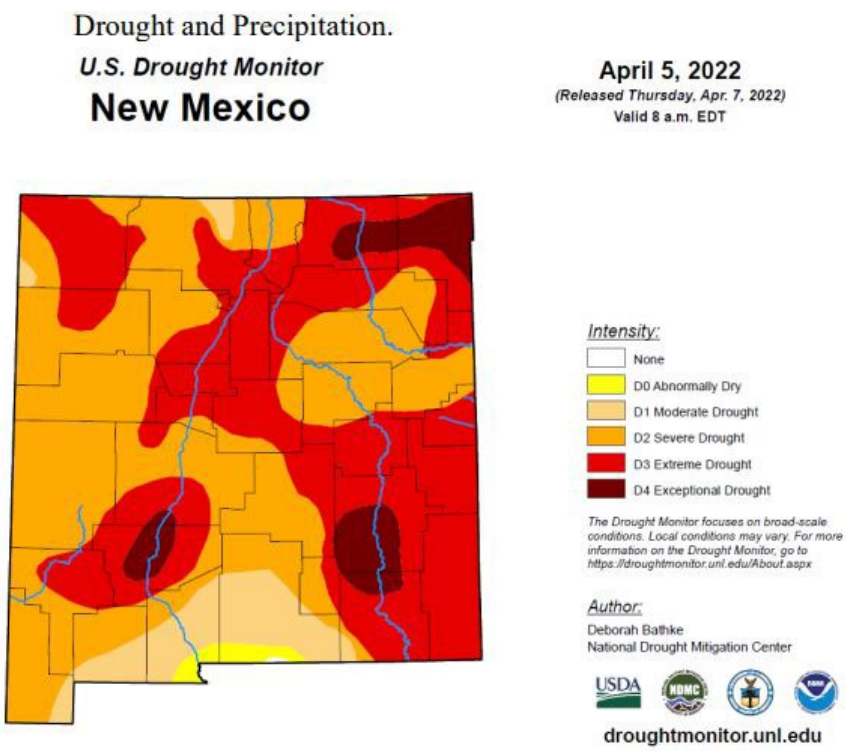
The review team reviewed the following attributes to determine compliance with agency policy, guidance, and standard operating procedures. The following findings are offered as observations from the team's review of the incident.

1) **Analysis of Seasonal Severity, Weather Events, and On-Site Conditions Leading up to the Wildfire Declaration.**

Seasonal Indicators:

According to the most recent US Drought Monitor report, broad scale environmental conditions in the vicinity of the prescribed burn were experiencing extreme to exceptional drought conditions (US Drought Monitor, April 5, 2022).

Drought and Precipitation.



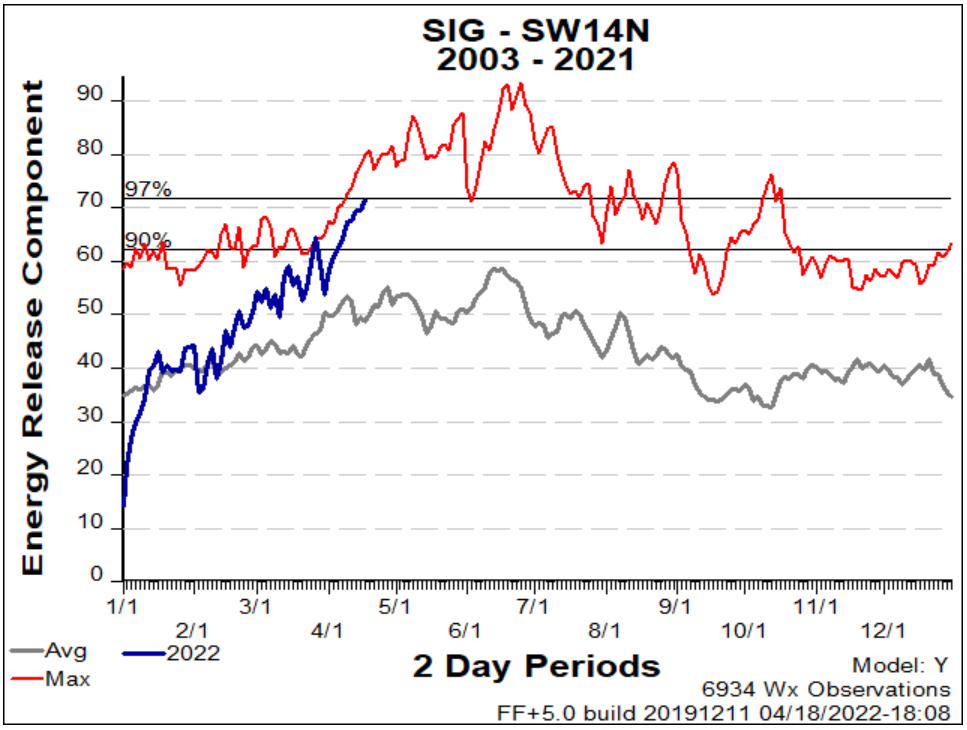
Spot Weather Forecasts: Spot weather forecast were provided at 0728 AM CDT on April 7, 2022, by the National Weather Service Midland/Odessa Texas station.

Conditions for Thursday, April 7

Max Temperature	69 degrees
Min Humidity	8 percent
Wind (20 foot)	North 5-6 mph shifting to south 7-13 mph late in the morning.
Haines Index	3 to 4 or very low to low potential for large plume dominated fire growth.

Remote Automated Weather Station data: The most representative RAWS station was identified as the 8-Mile RAWS. At the time of the test fire, the RAWS recorded a temperature of 60 degrees, 10% relative humidity, winds 9 mph out of the south and a calculated Fine Dead Fuel Moisture (FDFM) of 5%. Additional RAWS observations are also included in the chronology tables.

On-site Weather Observations: At the time of the test fire, on-site weather observations recorded a temperature of 62 degrees, 17% humidity, winds south at 5 mph. Additional weather observations during implementation can be found in the chronology tables.



Fuels Data: Live herbaceous fuel moistures could be considered fully cured at the time of the burn with no green-up observed in the grasses which was the primary carrier of the fire. ERC for SW14N SIG was above normal and near the 97th percentile for this time of year. Due to the one-hour component (grass) being the primary carrier of fire, it is unlikely long term drought experienced in the area or high ERC contributed to any additional risk from these fuels' conditions.

2) **Analysis of the Prescribed Fire Plan Consistency with Interagency and BLM Policy and Guidance Related to Prescribed Fire Planning and Implementation.** The Overflow Wetlands Prescribed Fire plan did not include all required elements per the Interagency Prescribed Fire Planning and Implementation Procedures Reference guide. The plan included 18 of the 21 required elements of the NWCG Prescribed Fire plan template. See Compliance Actions section below for inconsistencies with policy on Element 2B Prescribed Fire Go/No-Go Checklist and Element 10.

3) **Analysis of Prescribed Fire Implementation for Consistency with the Plan's Prescription:** The implementation of the prescribed fire was not consistent with the prescribed fire plan's prescription. See Compliance Actions section below for further information on inconsistencies for Element 7 Prescription and Element 14 Test Fire.

4) **Actions and Procedures Taken Leading up to the Wildfire Declaration and Consistency with the Prescribed Fire Plan:** Implementation actions and procedures taken leading up to the wildfire declaration were not consistent with the prescribed fire plan. The availability of contingency resources was verbally confirmed but was not documented as stated in the Element 17 Contingency Plan in the burn plan. Findings (below), #7 - Element 17 contingency plan for further information. During the implementation of the prescribed fire,

leading up to the wildfire declaration, all actions were safe, efficient and consistent with standard burning practices with ignitions and holding operations.

5) **Causal Agents Contributing to the Wildfire Declaration:** During normal burn operations, a dust devil/fire whirl established in the interior of the burn and carried hot embers across the control line at a critical holding point. This fire whirl caused mass ignition of fuels on the other side of the control line, which in turn, created unpredicted fire behavior due to the strong gusty winds and multiple spot fires. **This was the leading causal factor resulting in the wildfire declaration.** With the increased erratic wind from the dust devil, the fire established itself in the tall grass and eventually salt cedar, spreading rapidly with high fire intensity. On site resources were unable to contain the fire and the escaped portion of the prescribed burn was declared a wildfire shortly thereafter.

6) **The Approving Agency Administrator's Qualifications, Experience, and Involvement:** The approving agency administrator/field office manager had the required training and was qualified to sign the burn plan and the amendment to the burn plan. The agency administrator had been a fire management officer for the BLM providing adequate fire background and experience to evaluate the adequacy of the prescribed fire plan.

7) **Qualification of Key Personnel Involved with the Prescribed Fire Planning and Implementation:** All fire personnel were qualified current in the positions they served during prescribed fire operations as well as qualification requirements for burn plan preparation, technical reviewer and agency administrator.

Findings

The following includes recommendations to improve future program effectiveness or findings not in compliance with current policy. Recommendations are offered to assist continuous program improvement by promoting individual and organizational learning through sharing of lessons learned. Practices not in compliance with current policy should be corrected immediately to ensure future program efforts align with agency direction.

1) **Risk Normalization and Optimism:** Risk normalization can occur on prescribed fires when risks associated with implementing a burn occur frequently enough to become acceptable over time. Interviews with involved personnel indicated their comfort with the plan and implementation of the prescribed fire was based on prior successful implementation of similar projects with the same burn plan template in similar areas and under similar conditions. It appeared the previous success may have narrowed the perception of burn personnel and created confidence in a single way of doing things and optimism about continued success based on previous success. This in turn likely led to a lack of sensitivity to subtle signals or changes indicating potential future problems in the operation.

   Recommendation: Consider conducting thorough discussions of the consequences during the planning and implementation phases of prescribed fire projects with all those involved in the project. In these discussions allow key participants in the operation the opportunity to discuss what they believe could go wrong with the project and then discuss ways to mitigate those measures. Focus on how weak signals, accumulated small errors, and misinterpretations of these problems can lead to undesirable outcomes.

2) **Burn plan amendment process and structure:** The amendment of the Overflow Wetlands Prescribed Fire plan to authorize the burning of the South Overflow prescribed fire unit led to misunderstandings and inconsistencies of what resources were required and what actions were authorized. During review of the amendment there were inconsistencies in what was identified to be included in the amendment and what was actually included in the amendment when comparing the checklist and the referenced elements.

   Recommendation: The review team recommends either standalone unit prescribed fire plans are developed, or programmatic prescribed fire plan with individual unit plans, be developed to address projects with multiple units.

   Prescribed fire plan amendments must consider how changes impact complexity of the prescribed fire. The final complexity rating must be reviewed, and a new complexity analysis performed, if the proposed amendment(s) result in a change to the risk or technical difficulty of one or more elements in the complexity analysis.

   When beginning the prescribed fire plan writing process, refer to the amendment section found on page 14 and 15 of the PMS484 outlining, flexibility can be provided initially in a burn plan to avoid amendments in the future.

3) **Element 2B: Prescribed Fire Go/No-Go Checklist - Not in compliance.** Ensure the prescribed fire plan has a copy of the Prescribed Fire Go/No-Go Checklist as required by the PMS-484 Prescribed Fire Planning and Implementation Guide. The form was missing from the Overflow Wetlands Prescribed Fire plan. There was some confusion regarding if the checklists, even if blank, should be included in the Overflow Wetlands Prescribed Fire plan at time of signature and technical review. Each burn plan should have all the required elements as required by the PMS-484 Prescribed Fire Planning and Implementation Guide. A signed Go/No-Go checklist was included in the burn day documents as part of the amendment South Overflow prescribed fire.

4) **Element 7: Prescription** - Clarifying statements in the body of the prescription suggested skepticism with modeled outputs from BehavePlus. The clarifying text attempts to justify having a total on-scene line production rate less than the modeled ROS.

   Recommendation: Since modeled fire behavior predictions were close to observed behavior, and ROS ultimately exceeded available resources, these qualifying statements and adjustment to minimum resource requirements/types should be re-examined in other burn plans for similar fuel types.

5) **Element 7: Prescription - Not in compliance.** At the time of the test fire, the prescribed fire was not within the weather and environmental prescription as stated in the burn plan. The prescription for all currently authorized prescribed fire plans on the district will be reviewed to ensure FDFM is accurate given the suggested prescription (RH, Temp). Ensure holding forces required match the outputs given with adjusted FDFM. Make any necessary prescription adjustments and ensure the plans are appropriately re-signed.

   a. During review of the prescription, the predicted weather, spot weather forecasts and typical weather for this time of year, it is unlikely a burner would be able to realistically meet the prescription's FDFM limit of 8%. Based on the weather and environmental parameters outlined, there was opportunity for misinterpretation of the allowable

prescription based on how it was structured in the burn plan. Including a lower FDFM and development of prescription parameters for different wind speeds will improve the overall prescription. This would allow for a wider prescription window while still considering the two biggest drivers of fire behavior in a grass fuel model -- wind and FDFM. Adding a FDFM chart to aid in quick field evaluation of prescription conditions will help field crews quickly determine burn day conditions. Modeling flanking and backing fire in addition to head fire in BehavePlus runs will also improve an understanding of the full range of possible fire behavior. An example prescription was developed with the district fuels specialist prior to the review team leaving.

6) **Element 9: Pre-burn considerations** – Pre-burn considerations were general in nature and lacked details that could have been useful when burning at the higher end of the allowable prescription.

   Recommendations:

   a. Specifically identify any pre-burn work necessary to accomplish the prescribed burn within the forecasted weather parameters. Avoid generalizations to ensure the specific and needed pre-burn preparation is identified and completed.

   b. Recommend utilizing pre-burn considerations, including pre-burn preparations, as an opportunity to describe mitigation measures to address high fire behavior and containment elements in the complexity analysis. This could be additional mowing, hose lays, sprinklers, removal of heavy fuel load adjacent to the critical control areas, etc.

   c. Recommend including the most representative RAWS station to the prescribed fire area and link to it in the burn plan and/or amendment.

   d. Agreements should be established when there's a shared boundary between private and agency lands to better define roles/responsibilities in the event fire leaves the project boundary.

7) **Element 10: Briefing - Not in compliance.** The prescribed fire plan did not have a copy of the briefing checklist as required by PMS-484 Prescribed Fire Planning and Implementation guide. Ensure the checklist is included as part of the prescribed fire plan.

   a. If the element will be included in the burn day document tab or amendment, recommend including the reference in the prescribed fire plan, referring to the burn day forms for briefing outline and content. There was some confusion as to if they were included in the Overflow Wetlands Prescribed Fire plan at time of signature and technical review.

   b. Having a tab in the burn plan folder to include burn day packets with all the individual burn day forms (i.e., go-no-go check list, test fire, objectives, weather observations, briefing, organization chart, communications, maps, etc.) would improve organization for required documentation.

8) **Element 11: Organization and Equipment**- On-scene resources met minimum staffing requirements identified in the plan but were ultimately insufficient when fire became established outside of the burn unit.

   Recommendations: Ensure on-scene resource capabilities match or exceed potential fire behavior that aligns with selected prescription elements from the burn plan. Make sure to

refer to the prescription factors (e.g., FDFM) that the potential fire behavior was modeled from and staff the prescribed fire accordingly. Ensure resources identified in the amendment match the identified line building outputs for the weather parameters the unit is being burned in and if not, provide rationale in the amendment as to why they differ.

9) **Element 14: Test Fire - Not in compliance.** Ensure all requirements of the test fire are adhered to. The FDFM was not calculated at the time of the test fire. If FDFM had been calculated, the burn boss may have realized the burn was out of prescription.

   Due to misinterpretation of prescription parameters, it appeared the prescribed burn was within the environmental parameters set forth in the burn plan when in fact, they were not. Prescription parameters must be filled out and documented as part of the test fire validation. The FDFM was not calculated at the time of the test fire.

   When FDFM is a limiting environmental parameter to be in prescription, the FDFM must be calculated before a test fire is conducted. Ensure all prescription parameters are met, documented, and adhered to before igniting a test fire. If parameters are out of prescription, do not light test fire. The review team has provided feedback on alternative approaches to building prescription parameters that provide the most flexibility and lessen the chance for misinterpretation. Area fire weather forecasts should provide fire managers enough information to estimate potential FDFMs to determine if potential windows of opportunity are approaching.

10) **Element 17: Contingency Plan**- The availability of contingency resources was not determined until after the test fire had been ignited. Having contingency resources remain offsite during implementation of the burn, could present issues when conducting burns in fast moving, fully cured fuels such as the Overflow incident.

    Recommendations: Language should be revised to state contingency resource availability will be determined prior to ignition of the test fire as opposed to after. If the included checklist of availability is to be included in the burn plan, then ensure it is filled out. Due to the rapid rate of spread and resistance to control presented by fuels within and adjacent to the unit, the proximity to private lands/structures and unit boundaries, as well as the response lag time of resources, consider having additional resources on scene in lieu of off-site contingency resources. This adjustment to contingency resources is even more important when burning on the higher end of the prescription.

    a. Section A – Modeled fire behavior (ROS in excess of 3 mi/hr and FL in excess of 20'), and ultimately observed fire behavior, suggest the contingency plan would need to be aggressive to keep the prescribed fire within prescription if contingency resources and actions were enacted. Current and future planning should incorporate a solid picture of potential fire growth, values at risk from the potential growth, potential speed of fire spread, and realistic resources needed to keep the burn within prescription. The burn plan was not realistic about risk in this section.

11) **Complexity Analysis:** Identified mitigation measures may not have sufficiently reduced risk as identified in the complexity analysis.

    Recommendations: When preparing the complexity analysis and identifying mitigation measures, ensure mitigating actions identified to lower the complexity or risk are truly

lowering the complexity or risk/consequences. For example, in the complexity analysis of the burn plan, the initial risk rating for resistance to containment was rated a "High", in the post plan risk the rating is lowered to a "moderate". The actions in the burn plan to address risk mitigation state "Based on acceptable weather parameters in the burn plan, spotting potential will be minimized and the likelihood of any potential spot fires exceeding the capabilities of holding forces will be minimized". Based on this statement, when burning on the high end of a prescription, consider if the stated mitigation techniques listed are still valid and mitigate the risk. If under those elevated conditions, the complexity analysis mitigations cannot be followed, then the complexity analysis is invalid and needs to be adjusted.

12) **Maps:** Values at risk were not well represented on maps.

Recommendations: Include values at risk on maps (private structures/property) or on a significant hazards map. Identifying existing road systems in the burn vicinity and geo referencing for use on smart devices would also help improve situational awareness for all burn personnel. In the event of spot fires or escape, this would improve communications on offsite values especially with off district resources.

Appendices:

1. South Overflow Wetlands Unit map
2. Overflow Fire final map
3. South Overflow/Overflow Fire Chronology

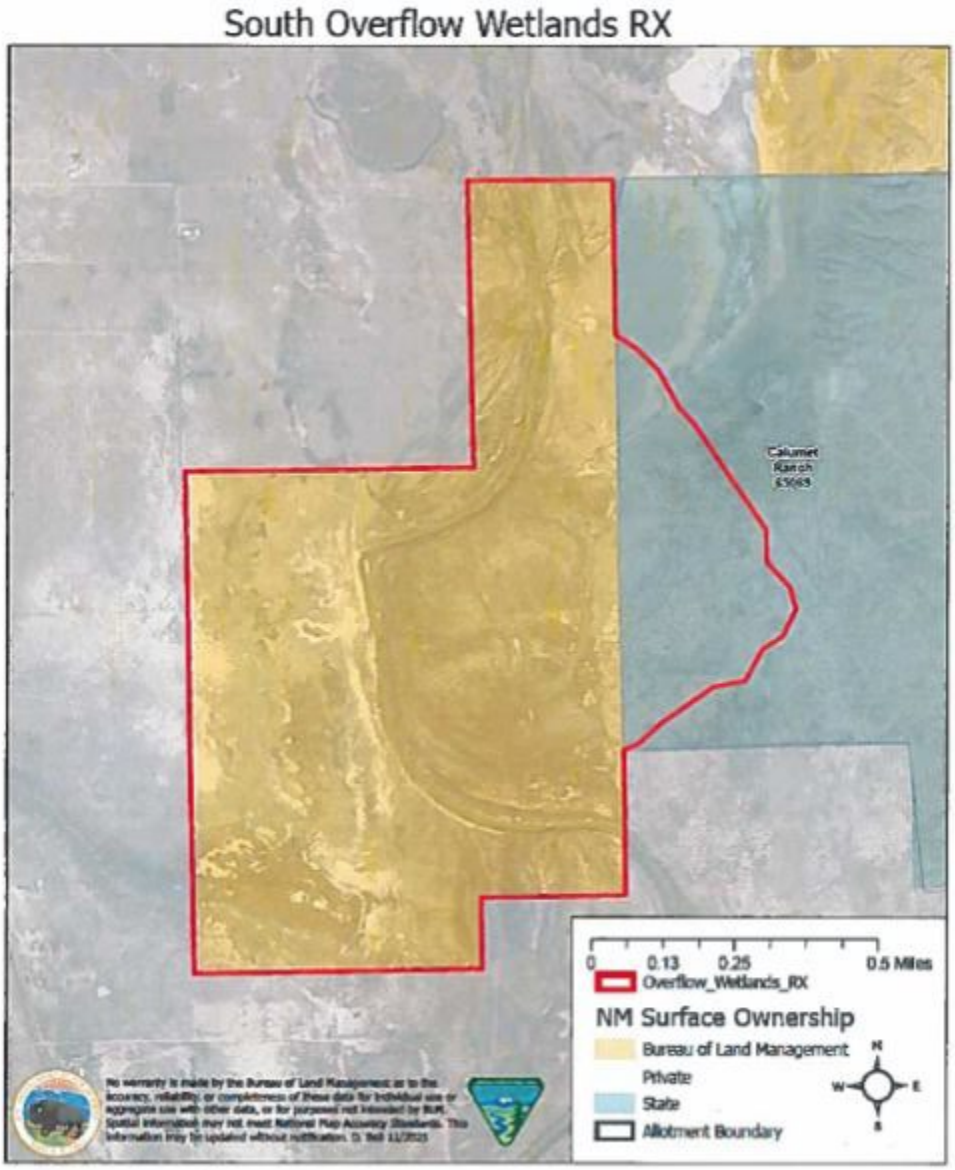
Review Team Members:

Team Lead
Ben Sitz, Fire Management Specialist Budget and Evaluation, BLM FA

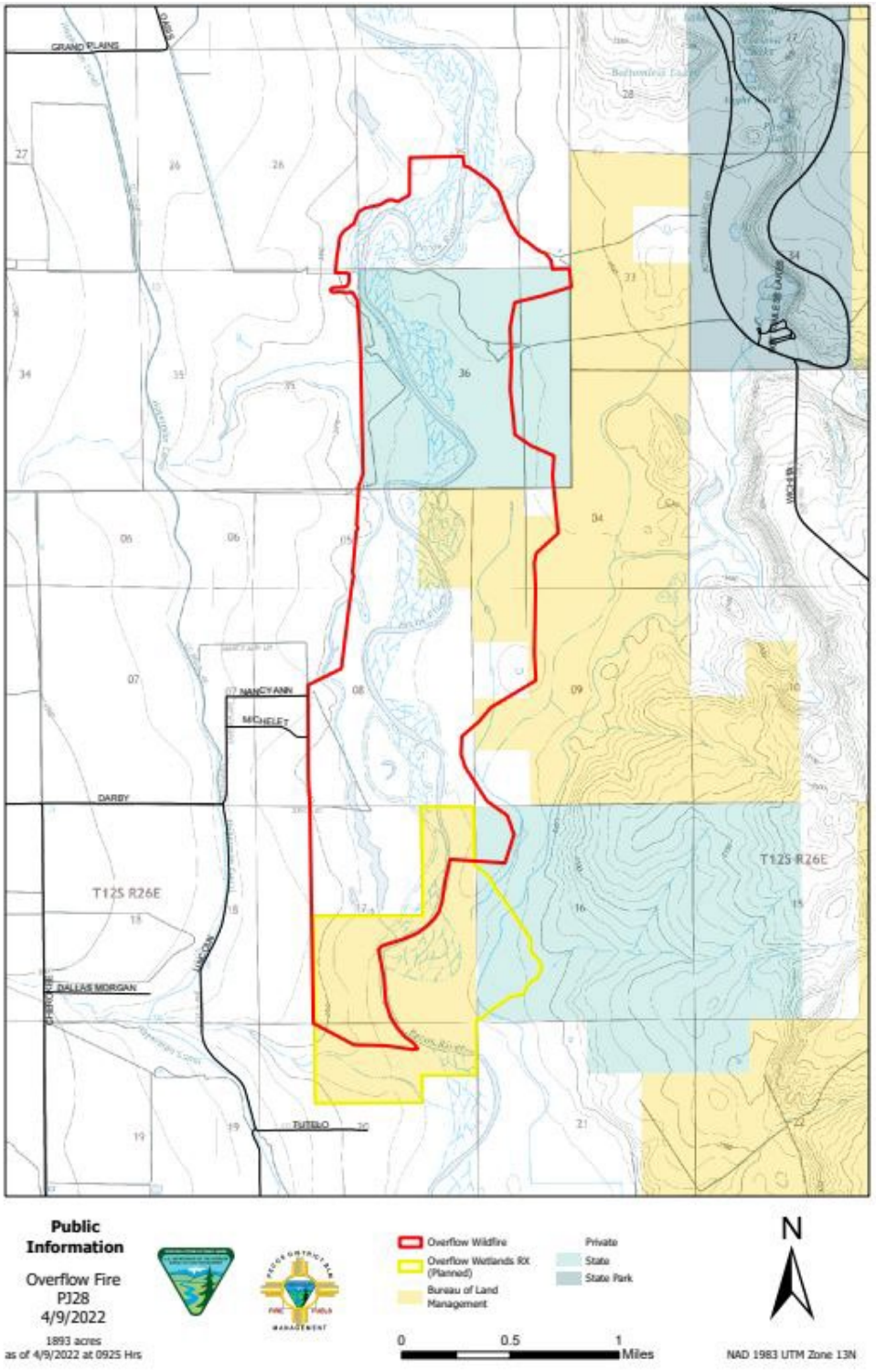
Team Members
Casey Boespflug- State Fuels Program Manager, BLM Alaska

Tim Theisen- State Fuels Program Manager, BLM Nevada

Appendix 1. South Overflow Wetlands Unit Map



Appendix 2: Overflow Fire Final Map



Appendix 3: Chronology of Events

The orange highlighted timelines are associated with the prescribed fire events.

The non-highlighted timelines are associated with the declared wildfire.

	Thursday, April 7th, 2022		
Time	**Activity**	**Weather**	**Fire Behavior**
0728	Spot Weather Forecast issued by the National Weather Service Midland/Odessa TX	**Spot Weather Forecast for Thursday:** Max temp: Around 69 Min RH: 8% Winds: North 5-6 mph shifting to the south 7-13 mph late in the morning Fine Dead Fuel Moisture (FDFM) Calculated from BehavePlus 6: 3-4%	N/A
0933	• Burn Boss to ADC: All resources are on scene and took walk around to get familiar with the unit	N/A	N/A
1131	• Burn Boss to ADC: All resources briefed and conduct test fire	**Test Fire Observations:** Temp: 62 RH: 17% Winds: S 5 mph Burn Boss Calculated FDFM 5% **1100 RAWS Observations:** Temp: 60 RH: 10% Wind: SW 9 mph FDFM-Calculated from BehavePlus 6: 5%	Rate of Spread: 15 Chains Per Hour Flame Length 6 ft
1158	• Burn Boss to ADC: Test fire successful and continued with operations		
1159	• Dispatch emailed DOs/fire info group on successful test fire	**1200 On Site Observations:** Temp: 65 RH: 16% Wind: S 7 mph FDFM-Calculated from BehavePlus 6: 4% **1200 RAWS:**	Heavy smoke, gray smoke drifting North with moderate lift.

		Temp: 61 RH: 10% Wind: S 11mph FDFM-Calculated from BehavePlus 6: 3%	
1230	• Burn Boss reports to ADC still working on north line adding depth, heavy smoke, drifting north moderate lift	N/A	N/A
1245	• Burn Boss reports to FIRB, getting westerly component in the winds, smoke is drifting NNE	N/A	Westerly wind component
1247	• From ADC Log: Continue burning to south, operations normal	N/A	N/A
1250	• FIRB to Burn Boss: Approximately 6 chains of depth, straight line east to west, going to progress south	**1300 On Site Observations:** Temp: 64 RH: 16% Wind: SSW 7 FDFM-Calculated from BehavePlus 6: 4% **1300 RAWS Observations:** Temp: 63 RH: 10% Wind: SSW 7 FDFM-Calculated from BehavePlus 6: 3%	Heavy smoke, gray drifting NNE. Decent vertical lift.
1310	• A spot fire was reported, Holding reassured that the Burn Boss copied that there was a spot fire due to fire whirl	N/A	N/A
1312	• Holding notifies Burn Bos that it does not look like they will be able to catch it and the fire whirl still had it.	N/A	N/A
1320	• Holding checked on thoughts of ordering aircraft	N/A	N/A
1320	• Burn Boss calls FMO, informing him of situation and likelihood of ordering air support and declare a wildfire. FMO asked if Burn Boss wanted Bitter Lake Refuge (BTR) resources, Burn Boss send them	N/A	N/A
1325	• Burn Boss to ADC, declared the RX a wildfire, requests tanker out of Roswell	N/A	N/A
1326	• Burn Boss discussed transitioning with pre-identified IC at earliest convenience, they were still heavily engaged with direct suppression	N/A	N/A

1330	• Burn Boss called Midway VFP Chief and asked him to bring a water tender	N/A	N/A
1345	• Burn Boss/IC to ADC, 1 structure engine, 2 water tenders, and 2 type 6 engines. 2044 on scene	N/A	N/A
1405	• Sierra T6 engine on scene	**1400 RAWS Observations:** Temp: 66 RH: 9% Wind: SSW 6 mph FDFM-Calculated from BehavePlus 6: 3%	N/A
1408	• Burn Boss/IC Ignition became DIV-Z east side of river and holding became DIV- A west side of river. Comms switched to State Fire for wildfire and SOA2 for resources still on RX.	N/A	N/A
1421	• Burn Boss Bell transitioned IC to the pre-identified IC, RXB2 continued with Burn Boss duties	N/A	N/A
1426	• Acres reported to ADC 100	N/A	N/A
1427	• Size up to ADC, Running to the north, still on west side of river	N/A	N/A
1433	• T-105 Load and Return, ETE-12 minutes	N/A	N/A
1443	• Contingency Dozer from FWS in route to fire ETR 25-30 minutes	N/A	N/A
1446	• B-61 30 minutes out	N/A	N/A
1519	• Fire reported at 150 acres and B-61 and Dozer on scene	**1500 RAWS Observations:** Temp: 67 RH: 8% Wind: SW 5 mph FDFM-Calculated from BehavePlus 6: 3%	N/A
1527	• BLM DO request to ADC VLAT T-914 to respond with water	N/A	N/A
1550	• Fire reported at 200 acres, making good progress, fire on both sides of the river	N/A	N/A
1615	• From Burn Boss, southern area tied into Overflow Incident, no additional progression on south side, claiming 280 acres for the RX.	N/A	N/A
1616	• T-105 load and return	**1600 On Site Observations:** Temp: 67 RH: 15 Wind: S 6 mph	Heavy smoke, drifting north

		FDFM-Calculated from BehavePlus 6: 5% **1600 RAWS Observations:** Temp: 69 RH: 7 Wind: S 7 mph FDFM-Calculated from BehavePlus 6: 4%	
1652	• IC contacts ADC to inform power company that some of their power poles are on fire.	N/A	N/A
1712	• Current Burn Boss transitioned RXB duties to new Burn Boss and will be working on Overflow Incident	N/A	N/A
1716	• T-914 on scene, load and return	**1700 On Site Observations:** Temp: 68 RH: 13 Wind: S 1-3 mph FDFM-Calculated from BehavePlus 6: 4% **1700 RAWS Observations:** Temp: 68 RH: 8 Wind: S 8 mph FDFM-Calculated from BehavePlus 6: 4%	Heavy smoke, drifting north
1758	• IC Will order a dozer if they can be on scene within 2-3 hours of 2000 tonight, updates to 2100	N/A	N/A
1820	• T-914 on scene	**1800 On Site Observations:** Temp: 64 RH: 15 Wind: S 2-5 mph FDFM-Calculated from BehavePlus: 7% **1800 RAWS Observations:** Temp: 65 RH: 10 Wind: S 12 mph FDFM-Calculated from BehavePlus 6: 6%	Heavy smoke drifting north

1825	• Dozer not available	N/A	N/A
1843	• T-105 returning to ALM on a hold	N/A	N/A
1917	• T-914 on the ground	**1900 RAWS Observations:** Temp: 59 RH: 10 Wind: SSW 6 mph FDFM-Calculated from BehavePlus 6: 6%	N/A
2014	• IC reports fire activity has decreased, but resource have not got around it, estimated 2-3 hours, estimate 500 acres	**2000 RAWS Observations:** Temp: 52 RH: 14 Wind: SE 6 mph FDFM-Calculated from BehavePlus 6: 6%	N/A
2150	• FMO requested PIOF	**2100 RAWS Observations:** Temp: 51 RH: 13 Wind: SE 8 mph FDFM-Calculated from BehavePlus 6: 6%	N/A
2153	• IC reports east side of river has been buttoned up with check line, west side river not in check, burnout operations is currently being conducted, estimated 900 acres.	**2200 RAWS Observations:** Temp: 50 RH: 13 Wind: ESE 9 mph FDFM-Calculated from BehavePlus 6: 6%	N/A
2155	• All lines on the RX portion have been buttoned up for the night, ops normal. RX portion in good shape.	N/A	N/A
2225	• All resources released form RX. RX portion will remain unstaffed.	N/A	N/A
2337	• IC requests updated spot weather	N/A	N/A
	Friday, April 8th, 2022		
0007	• Spot weather update received	**Spot Weather Forecast for Friday:** Max temp: Around 72 Min RH: 9% Winds: North 7-8 mph shifting to the west 6 mph late in the	N/A

		morning then shifting to south 6-12 late in the morning Calculated FDFM from BehavePlus 6: 2-5%	
0009	• IC Reports close to tying in west side. May release VFD's at that point. Will keep 5670 and 5462 on throughout the night. 631 will RON in Roswell and return in AM	N/A	N/A
0142	• IC reports wind shift caused 25 acre slopover on NW side. IC requests 5 engines of any type with Strike Team or Task Force Leader. Requested 2044 and 631 to return	N/A	N/A
0143	• Ordered two additional engines, on the road at 0500	N/A	N/A
0411	• DO discussed with Taos DO to make 2615, 2620, 2616, Jackson IHC and ICT3 available.	N/A	N/A
0550	• ROD to IC, filled 3 engines from State, ETA 0800	N/A	N/A
0656	• IC Requests 2 Tactical water tenders	N/A	N/A
0721	• IC updates, fire is looking better, estimated 50% containment.	N/A	N/A
0843-1115	• E-622, E-621 and E-2044 on scene	N/A	N/A
1418	• IHCCrew-2 arrives on scene	N/A	N/A
1431	• Transfer of command from to ICT3	N/A	N/A
1452	• Acres updated by IC to 1893	N/A	N/A
1501	• IC informs dispatch he will be keeping Sacramento IHC	N/A	N/A
1745	• Jackson IHC and E-2616 on scene	N/A	N/A
Saturday, April 9th, 2022			
0851	• Updated, fire holding, little smoke on the north end, mopping up remains 50% contained	N/A	N/A
Sunday, April 10th, 2022			
1009	• IC updates ADC, fire is 70% contained, will be releasing some resources	N/A	N/A
Wednesday, April 13th, 2022			
0830	• Transfer of Command, fire is 100% contained	N/A	N/A
Wednesday, April 17th, 2022			

1657	• Fire 100% Controlled	N/A	