The Utah Interagency Prescribed Fire Plan Template is designed to be user friendly and to provide a standard format throughout Utah for use by the Bureau of Land Management (BLM), National Park Service (NPS), US Fish and Wildlife Service (USFWS), Bureau of Indian Affairs (BIA), and Utah Forestry, Fire, and State Lands. This template meets the requirements established in the Interagency Prescribed Fire Planning and Implementation Procedures Guide (Prescribed Fire Guide) (PMS 484 July 2017) and the NWCG Prescribed Fire Plan Template (PMS 484-1 March 2018).

The plan is the site-specific legal implementation document that provides the agency administrator the information needed to approve the prescribed fire plan and the prescribed fire burn boss the information needed to implement the prescribed fire plan. The Prescribed Fire Guide establishes national interagency standards for the planning and implementation of prescribed fire. The guide is available at: https://www.nwcg.gov/publications/484.

This Prescribed Fire Plan represents a standardized, electronic, reproducible template for the Prescribed Fire Plan development process editable in MS Word. General direction from the Prescribed Fire Guide is provided within the template. For detailed direction on each element, see the Prescribed Fire Guide. While the template provides for all elements of the burn plan, in several areas (these include the organization chart, radio communications plan, medical plan, mop-up & patrol plan), units may desire to use locally developed sections as long as they meet standards developed in the Prescribed Fire Guide.

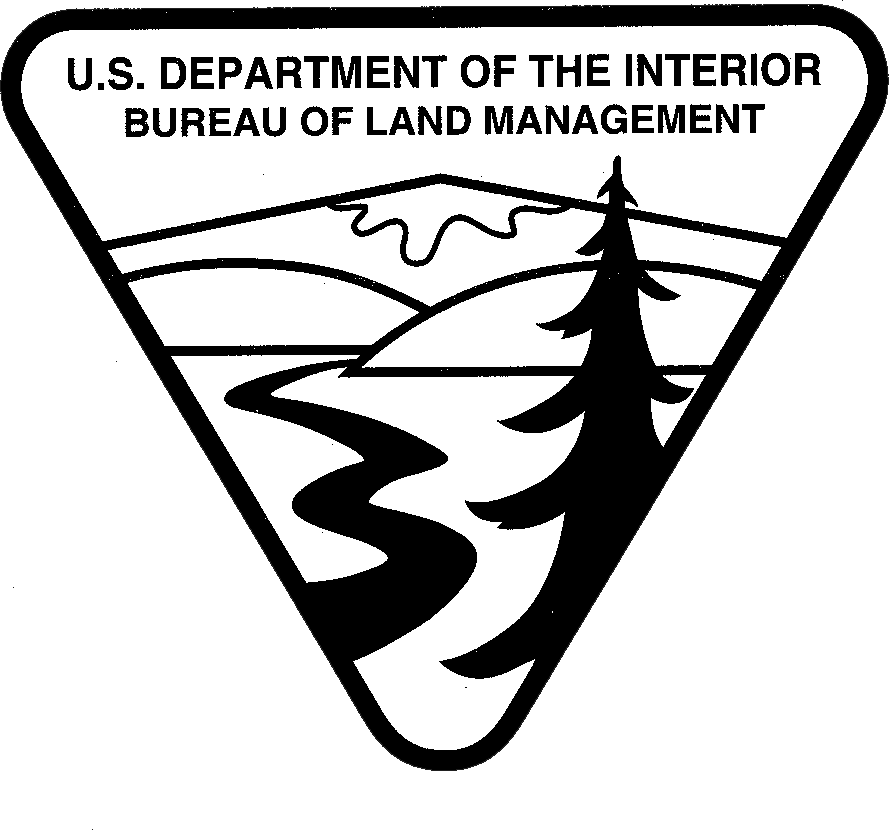
Within the template, grey boxes identify areas requiring input into the Prescribed Fire Plan. Wording in **red** are instructions to the preparer for each element. Upon completion of the plan the preparer should delete all items that appear in **red** and **should not** **be included in the final document**. Those items underlined in **blue** are hyperlinks that will take the preparer to the document referred to in the text or to an internet location. Items that appear in **green** are recommended text and should be used to assist in the development of specifics for the prescribed fire plan, then converted to black text if utilized in the final burn plan. Original text in **black** is to remain as part of the plan. This page is for informational purposes and should be **deleted** prior to submitting plan for technical review and approval.

While the template is intended to be Interagency in scope, agencies have added national and regional supplemental direction to the Prescribed Fire Plan template. Specific direction by agency is identified by the following colors: Bureau of Land Management – **brown** and National Park Service - **orange**. When completing the template, one only needs to complete the additional requirements for their respective agency and can delete the non-applicable section or leave blank.

The Project Name and Unit Name should be entered in the document’s header which will automatically appear on each following page of the plan. Project Name is the name of the prescribed fire and Unit Name is the name of the administrative unit.

An automatic Table of Contents is included in the template. To update the page numbers, click anywhere within the Table of Contents topics section, then click on the “Update Table..” highlighted tab followed by “Update page numbers only” and finally hit “OK.” The Table of Contents will also automatically update itself when you print the document.

Revised: March 2021 JBW



**PRESCRIBED FIRE PLAN**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ADMINISTRATIVE UNIT(S)** | | | | |  | | | | | | | |
|  | | | | |  | | | | | | | |
| **PRESCRIBED FIRE NAME** | | | | |  | | | | | | | |
|  | | | | |  | | | | | | | |
| **PREPARED BY** | | | Signature of qualified burn boss at the complexity of the plan. | | | | | | | **DATE** | |  |
|  | | | Name - Qualification & Currency (Y/N) | | | | | | |  | |  |
| **ADDITIONAL PREPARER** | | |  | | | | | | | **DATE** | |  |
|  | | | Name – Qualification | | | | | | |  | |  |
| **FIRE MANAGEMENT OFFICER REVIEW** | | | BLM/NPS Specific | | | | | | | **DATE** | |  |
|  | | | Name – Qualification | | | | | | |  | |  |
| **TECHNICAL**  **REVIEW** | | |  | | | | | | | **DATE** | |  |
|  | | | Name - Qualification & Currency (Y/N) | | | | | | |  | |  |
| **RESOURCE MANAGEMENT** | | | NPS Specific | | | | | | | **DATE** | |  |
|  | | | Name – Qualification | | | | | | |  | |  |
| **FIRE ECOLOGIST** | | | NPS Specific | | | | | | | **DATE** | |  |
|  | | | Name – Qualification | | | | | | |  | |  |
| **The approved Prescribed Fire Plan constitutes the delegation of authority to burn. No one has the authority to burn without an approved plan or in a manner not in compliance with the approved plan. Actions taken in compliance with the approved Prescribed Fire Plan will be fully supported. Claims for property damage and personal injuries will be processed through the provisions of the Federal Tort Claims Act. Personnel will be held accountable for actions taken which are not in compliance with elements of the approved plan regarding execution of the objectives in a safe and cost-effective manner.** | | | | | | | | | | | | |
| **COMPLEXITY RATING** | |  | | | | **MINIMUM BURN BOSS QUALIFICATION REQUIRED** | | | | |  | |
|  |  | | | | | |  |  | | | | |
| **NEPA Number** |  | | | | | | **PROJECT NUMBER** |  | | | | |
|  | | | |  | | | | |  | |  | |
| **APPROVED BY** | | |  | | | | | | | **DATE** | |  |
|  | | | Name - Agency Administrator | | | | | | |  | |  |
| **APPROVED BY** | | |  | | | | | | | **DATE** | |  |
|  | | | Name - Agency Administrator | | | | | | |  | | Version – March 2021 JBW |

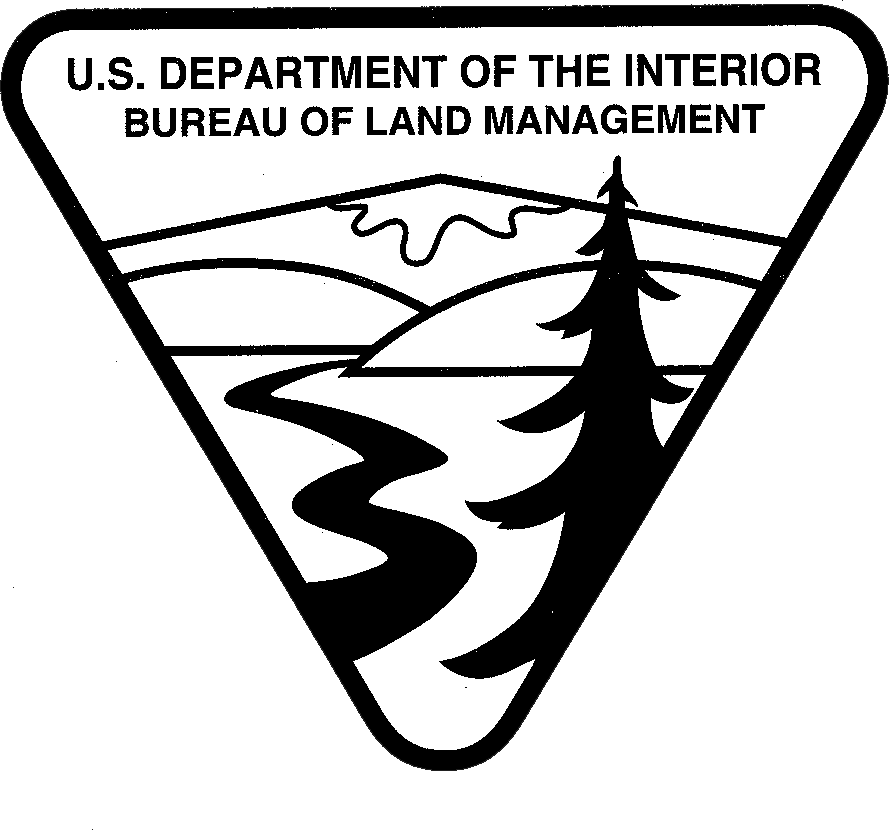


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|  |
| --- |
| Management Summary |
| The first paragraph of the Management Summary is intended as an overall project summary for internal and external use. The paragraph may be used on [www.utahfireinfo.gov](http://www.utahfireinfo.gov) and other external websites and communications to summarize each burn project in Utah when scheduled for implementation. The (name of prescribed fire) Prescribed Fire project is located in XXX County, XXX miles (direction) of (name of community). Previous treatment on this project included XXX. The project consists of XXX acres located (geographical location). The primary objective of this burn is to reduce the existing wildland fire hazard and (include any other significant objectives), thus reducing potential negative effects from future wildland fire to both agency and adjacent private lands while restoring fire-adaptive ecosystems. |

# ELEMENT 2 - AGENCY ADMINISTRATOR IGNITION AUTHORIZATION

**(Prescribed Fire Plan, Element 2A)**

Instructions: The Agency Administrator Ignition Authorization must be completed before a prescribed fire can be implemented. If ignition of the prescribed fire is not initiated prior to expiration date determined by the agency administrator, a new authorization will be required.

Prior to signature the agency administrator should discuss the following key items with the fire management officer (FMO), fuels specialist, or burn boss. Attach any additional instructions or discussion documentation (optional) to this document.

**Key Discussion Items**

1. Has anything changed since the Prescribed Fire Plan was approved or revalidated?  
     
   *Such as drought or other climate indicators of increased risk, insect activity, new subdivisions/structures, smoke requirements, Complexity Analysis Rating.*
2. Have compliance requirements and pre-burn considerations been completed?  
     
   *Such as preparation work, NEPA mitigation requirements, cultural, threatened and endangered species, smoke permits, state burn permits/authorizations.*
3. Can all of the elements and conditions specified in Prescribed Fire Plan be met?  
     
   *Such as weather, scheduling, smoke management conditions, suitable prescription window, correct season, staffing and organization, safety considerations, etc.*

D. Are processes in place to ensure all internal and external notifications and media releases will be completed?

E. Have key agency staffs been fully briefed about the implementation of this prescribed fire?

F. Are there circumstances that could affect the successful implementation of the plan?  
 *Such as preparedness level restrictions, resource availability, other prescribed fire or wildfire activity*

G. Have you communicated your expectations to the Burn Boss and FMO regarding if and when you are to be notified that contingency actions are being taken?

H. Have you communicated your expectations to the Burn Boss and FMO regarding decisions to declare the prescribed fire a wildfire?

Implementation Recommended by: FMO, Fuels

Specialist, or Prescribed Fire Burn Boss Signature: Date:

I am authorizing ignition of this prescribed fire between the dates of and . It is my expectation that the project will be implemented within this time frame and as discussed and documented and attached to this plan. If the conditions we discussed change during this time frame, it is my expectation you will brief me on the circumstances and an updated authorization will be negotiated if necessary.

Additional Instructions or Discussion Documentation attached (Optional): Yes  No

Ignition Authorized by:

Agency Administrator Signature and Title: Date:

# ELEMENT 2 - PRESCRIBED FIRE GO-NO-GO CHECKLIST

**(Prescribed Fire Plan, Element 2B)**

|  |  |
| --- | --- |
| **\* Preliminary Questions** | **Circle YES or NO** |
| 1. Have conditions in or adjacent to the ignition unit changed, (for example: drought conditions or fuel loadings), which were not considered in the prescription development? If **NO** proceed with the Go/NO-GO Checklist below, if **YES** go to item B. | YES NO |
| 1. Has the prescribed fire plan been reviewed and an amendment been approved; or has it been determined that no amendment is necessary?   If **YES**, proceed with checklist below.  If **NO, STOP: Implementation is not allowed. An amendment is needed.** | YES NO |

| **GO/NO-GO Checklist** | **Circle YES or NO** |
| --- | --- |
| \* Have ALL permits and clearances been obtained? | YES NO |
| \* Have ALL the required notifications been made? | YES NO |
| \* Have ALL the pre-burn considerations and preparation work identified in the prescribed fire plan been completed or addressed and checked? | YES NO |
| \* Have ALL required current and projected fire weather forecast been obtained and are they favorable? | YES NO |
| \* Are ALL prescription parameters met? | YES NO |
| \* Are ALL smoke management specifications met? | YES NO |
| \* Are ALL planned operations personnel and equipment on-site, available and operational? | YES NO |
| \* Has the availability of contingency resources applicable to today’s implementation been checked and are they available? | YES NO |
| \* Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones? | YES NO |
| If all the questions were answered “**YES**” proceed with a test fire. Document the current conditions, location and results. If any questions were answered “**NO**”, DO NOT proceed with the test fire: Implementation is not allowed. | |
| After evaluating the test fire, in your judgment can the prescribed fire be carried out according to the prescribed fire plan and will it meet the planned objective? **Circle: YES or NO** | |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SIGNED** |  | | **DATE** |  |
|  | Prescribed Fire Burn Boss | |  |  |
| **CONCURRENCE** |  | | **DATE** |  |
|  | Ignition Specialist Function | |  |  |
| **CONCURRENCE** |  | | **DATE** |  |
|  | | Holding Specialist Function |  |  |

# ELEMENT 3 – COMPLEXITY ANALYSIS SUMMARY AND FINAL COMPLEXITY

Replace this page with the signed: Summary and Final Complexity Worksheet (PMS 424-1).

The worksheet is a separate file that needs to be copied and pasted from Summary and Final Complexity Worksheet, PMS 424-1. On the completed worksheet; highlight the entire worksheet area to be copied, right click, click on ‘copy’. On this page, delete this text, right click, choose ‘picture’ as a paste option, and resize as necessary to fit to page. An alternate solution is to print the Summary and Final Complexity Worksheet, 424-1, and insert into the final plan.

Risk management is the foundation for all prescribed fire activities. Risks and uncertainties relating to prescribed fire activities must be understood, analyzed, communicated, and managed as they relate to the cost of either doing or not doing an activity.

The prescribed fire complexity rating must be completed using the Prescribed Fire Complexity Rating System Guide, PMS 424 (<https://www.nwcg.gov/publications/424>).

The Summary and Final Complexity Worksheet, PMS 424-1 (<https://www.nwcg.gov/publications/424-1>) is a focused, subjective assessment by experienced prescribed fire burn bosses and evaluated by Agency Administrators (AA). This tool is designed to assist in providing insight and improving understanding of the significant risk-related elements of the prescribed fire.

A decision support tool that illuminates the risk to values associated with the prescribed fire implementation. Identification of the technical difficulty (complexity) of managing the risks to the values. Assignment of a complexity rating of high, moderate, or low to the prescribed fire and the level of prescribed fire burn boss qualification level required to implement the prescribed fire.

A process that can be used to identify prescribed fire plan elements or characteristics that may pose special problems or concerns, for example critical holding points (adjacent values needing protection, areas of potentially problematic fire behavior chimneys, saddles, heavy fuels, etc.), the need for multiple prescribed fire organizations, specialized equipment, and special risks or hazards.

# ELEMENT 4 - DESCRIPTION OF PRESCRIBED FIRE AREA

**A. Physical Description**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Legal description: | T |  | R |  | S |  |
|  | T |  | R |  | S |  |
| Latitude |  | | Longitude | |  | |
| Project Acres |  | | County | |  | |
| Primary Unit Acres |  | | Drainage | |  | |
| Low elevation |  | | Average aspect | |  | |
| High elevation |  | | Average slope | |  | |
|  | | | | | | |
| **Project Boundary** | | | | | | |
| **The project boundary defines that area where fire will be ignited and may be allowed to burn.** Describe the physical, natural and/or human made boundaries including primary unit (area to be ignited) and area fire is allowed to burn along with discussion on multiple compartments if applicable) of the prescribed fire project. This will be done through maps and a narrative. The entire prescribed fire project area must be analyzed under NEPA. Interagency agreements, memorandums of understanding (MOU) or private landowner agreements that outline responsibilities are required to implement prescribed fire on multiple ownerships. Rows can be added or deleted in the legal description based on project area.  The project area includes (narrative description of project area and boundary). The primary unit(s), where active ignition will occur, includes (narrative description of primary unit and boundary).  An amendment to the burn plan is not required for minor changes in burn unit boundaries to facilitate holding and/or ignition, as long as the area in question has been identified in the NEPA document, requires no change in holding or ignition resources and is within the project boundaries. Changes to project area boundaries resulting in either an increase or decrease in area requires an amendment to the burn plan. | | | | | | |

**B. Vegetation/Fuels Description**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **On-Site Fuels Data** | | | | **Adjacent Fuels Data** | | |
| FBPS Fuel Model(s) | |  |  | FBPS Fuel Model(s) |  |  |
| NFDRS Fuel Model(s) | |  |  | NFDRS Fuel Model(s) |  |  |
| Fire Regime(s) | |  |  | Fire Regime(s) |  |  |
| Fire Condition Class(es) | |  |  | Fire Condition Class(es) |  |  |
| Percent of Area | |  |  | Percent of Area |  |  |
| Fuel Loading | 1 hour tlf |  |  | General Description of Adjacent Fuels | | |
| 10 hour tlf |  |  | Describe the fuels outside of the primary burn unit, especially those that may be at risk if fire moves outside of the project area or ignition unit, with consideration of this used in developing minimum workforce and equipment needs. | | |
| 100 hour tlf |  |  |
| 1000 hour tlf |  |  |
| Litter depth |  |  |
| Duff depth |  |  |
| Live woody |  |  |
| Live herbaceous |  |  |
| Total fuel loading |  |  |
| **Comments** | | | | | | |
| Include narrative description of fuels within the burn unit including percent of the unit composed of each vegetative type and corresponding fuel model(s). State how the above loading was determined (i.e. inventory, photo series, estimation, fuel tables, etc.). Within the qualitative description include known information such as stand age, past fire history, presence of exotics, grazing and logging history, etc. Identify conditions in and adjacent to boundaries that may be a potential threat for escaped fire. Space is provided above under “On-Site Fuels Data” for two fuel models. If additional fuel models are required, the columns should be split. Columns should be added or deleted to reflect the number of fuel models within fuels descriptions. | | | | | | |

**C. Description of Values:**

|  |
| --- |
| List and discuss unique and special features, natural resources, values, hazards, issues and constraints including those identified in NEPA. Examples may include: Wildland Urban Interface (WUI) areas, fences power poles, historical sites, cultural sites, threatened and endangered species, or habitat to protect, etc. |

# 

# D. Maps – Attach in Appendix A

|  |
| --- |
| 1. Vicinity (Required) 2. Project/Ignition Unit(s) (Required) 3. Values (Optional): ☐ Included ☐ 4. Significant or Sensitive Features (Optional): ☐ Included ☐ Not Included 5. Fuels or Fuel Model(s)(Optional): ☐ Included ☐ Not Included 6. Smoke Impact Area (Optional): ☐ Included ☐ Not Included |

# ELEMENT 5 - OBJECTIVES

|  |
| --- |
| 1. Resource Objectives |
| Describe in clear, concise statements the specific measurable resource and prescribed fire objectives. Objectives are well-defined statements describing how a treatment accomplishes project goals as described through the NEPA process and documented in the decision document. Objectives should be specific, measurable, attainable, realistic and time sensitive (SMART) and used as a measure of project success, as determined through methods described in the monitoring element. Objectives need to be measurable and quantifiable so prescription elements can be developed to meet them. |
| 2. Prescribed Fire Objectives |
|  |

# ELEMENT 6 – FUNDING ESTIMATE

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Funding Source(s) | | | | | | | |
| Phase | Fuels | Wildlife | Range | Timber | UWRI | Other | Subtotal |
| Planning & Clearances |  |  |  |  |  |  |  |
| Burn Plan Preparation |  |  |  |  |  |  |  |
| Site & Line Preparation |  |  |  |  |  |  |  |
| Ignition & Holding |  |  |  |  |  |  |  |
| Mop-up  & Patrol |  |  |  |  |  |  |  |
| Subtotal |  |  |  |  |  |  |  |
| **Grand Total** | | These estimated costs are for the entire burn implementation and could be from one or more funding sources. | | | | |  |

# ELEMENT 7 – PRESCRIPTION

**A. Prescription Narrative:**

|  |
| --- |
| 1. **Describe how fire behavior will meet objectives** |
| Include a short narrative that describes the desired fire behavior identified in the prescription and discuss how it will achieve the desired treatment objectives.  The prescription will describe a range of low-to-high limits for the environmental or fire behavior parameters (or both) required to meet prescribed fire objectives. Describe only those parameters needed to identify the acceptable prescription window to meet prescribed fire objectives. In addition to the prescribed fire objectives, the prescription should take into consideration constraints such as smoke management issues and perimeter control concerns. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Environmental Prescription** | **Acceptable Prescription Range** | | | **Outside area at critical holding point**  **Minimum Acceptable Moisture** |
| **Low Fire**  **Intensity** | **Desired Fire**  **Intensity** | **High Fire**  **Intensity** |
| **Temperature (°F)** |  |  |  |
| **Relative humidity (%)** |  |  |  |
| **Mid-flame wind speed** |  |  |  |
| **Wind direction (azimuth°)** |  |  |  |
| **1-hr fuel moisture (%)** |  |  |  |  |
| **10-hr fuel moisture (%)** |  |  |  |  |
| **100-hr fuel moisture (%)** |  |  |  |  |
| **1000-hr fuel moisture (%)** |  |  |  |  |
| **Live fuel moisture (%)** |  |  |  |  |
| **Duff moisture (%)** |  |  |  |  |
| **Soil moisture (%)** |  |  |  |  |

|  |
| --- |
| **Additional Information** |
| Columns should be added if necessary to reflect the number of fuel models within the Acceptable Prescription Range. If a weather or fuel element is not a consideration as an environmental prescription, place N/A in the blank and do not leave empty. Fuel moistures should be collected from the burn site, identifying vegetation species and timing for collecting. If computed fuel moisture is used in determining guidance parameter verses actual sample, then such should be indicated as parameter.  Separate Environmental and Fire Behavior Prescriptions may be needed for multiple fuel model conditions to address seasonal differences and/or types of ignition (black lining, aerial ignition, etc). Separate prescriptions may result in multiple complexity ratings and burn organizations. For example, a separate prescription is needed for black-lining operations if conditions will be significantly different from the primary prescription. Separate prescriptions may result in the need to identify multiple levels of management, organizational structures, implementation measures, and pre-burn considerations. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Fire Behavior Prescription** | **Acceptable Fire Behavior Range** | | | **Outside area at critical holding points** |
| **Low Fire Intensity** | **Desired Fire Intensity** | **High Fire Intensity** |
| **Fuel Model(s)** |  |  |  |  |
| **Rate of Spread** (chains/hour) |  |  |  |  |
| **Flame Length** (in feet) |  |  |  |  |
| **Scorch Height** (in feet) |  |  |  |  |
| **Probability of Ignition** (%) |  |  |  |  |
| **Spotting Distance** (in miles) |  |  |  |  |
| Prescription is defined as the measurable criteria that define a range of conditions during which a prescribed fire may be ignited and held as a prescribed fire. Parameters are quantitative variables expressed as a range that result in acceptable fire behavior and smoke management. The plan prescription will describe a range of low to high limits for the environmental (weather, topography, fuels, etc.) and fire behavior (flame lengths, rate of spread, spotting distance, etc.) parameters required to meet Prescribed Fire Plan objectives while meeting smoke management and control objectives. If the prescription limits are exceeded, the Prescribed Fire Burn Boss must evaluate fire controllability and whether fire effects will meet objectives. The Prescribed Fire Burn Boss must take action to ensure objectives are being met, or take appropriate actions to maintain control of or secure the fire. | | | | |
| **Fire Modeling or empirical documentation (or both)** | | | | |
| Attach BehavePlus Worksheets  Columns should be added if necessary to reflect the number of fuel models within the Acceptable Fire Behavior Range. Fire behavior calculations must be developed using an appropriate fire behavior modeling program. The level of fire behavior modeling and the tools used should be commensurate with the scale and complexity of the fuel beds within the ignition units and landscape. Depending on objectives and conditions, spatial fire models, such as FlamMap and FARSITE, may need to be used in addition to non-spatial modeling to establish the prescription window. Consider using the skills of a FBAN, a LTAN, or air quality specialist (or a mix of all three) to develop prescriptions for long-duration prescribed fires and other complex projects. Include modeling and/or empirical evidence documentation as an appendix or in the fire behavior narrative. | | | | |

# ELEMENT 8 - SCHEDULING

|  |  |
| --- | --- |
| 1. **Ignition Time Frames/Season(s)** | Identify the general implementation schedule including time of day for ignition, duration of ignition or season(s) and note any constraints (dates, or days of the week etc.) on when the project may not be conducted. |
| 1. **Projected Duration** |  |
| 1. **Constraints** | |
| These constraints and considerations are specific to burn scheduling (i.e. cannot burn from 1 May to 31 July due to nesting birds, local event occurs on the first weekend of a specific month and burning will not occur, a spring burn is preferred to a fall burn to reduce the impact to the residual vegetation).  For multi-unit projects or long-duration prescribed fires, identify any special sequencing requirements, for example, Unit 5 must be completed before implementing Unit 12. Additionally, the agency administrator’s ignition authorization may identify additional scheduling constraints.  When implementing prescribed fires at National Preparedness Levels IV and V, see National Interagency Mobilization Guide for additional requirements. | |

# ELEMENT 9 - PRE-BURN CONSIDERATIONS & WEATHER

1. **Considerations**

|  |
| --- |
| **1. On Site** |
| Describe on- and off-site actions and consideration, including mitigation and design features identified in the NEPA decision, to be conducted and any other considerations to be addressed prior to implementation. Examples include clearances, mitigation actions generated by the complexity analysis, line to be built, preparation of critical holding points, snags to be felled or protected, equipment to be pre-positioned, special features to be protected, warning signs to be placed, weather recording, fuels condition sampling, monitoring needs, responsibilities, and timeframes. Describe any fuel sampling and weather data that may need to be obtained. |
| **2. Off Site** |
| Describe off-site actions and considerations that need to be conducted prior to implementation. Examples include informational signs to be posted, smoke signs to be placed, briefings to occur, Incident Action Plans to be developed, burn plans to be distributed, etc.  Prior to implementing the prescribed fire, the responsible dispatch office **will** be provided a complete copy (printed or electronic version) of the Prescribed Fire Plan. |

**B. Method and Frequency for Obtaining Weather and Smoke Management Forecast(s)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Proximity to nearest RAWS** | Identify nearest RAWS with distance/direction/elevation | | | |
| **Need for on-site RAWS** |  | Yes |  | No |
| **Additional Information** | | | | |
| Describe any fuel sampling and weather data that may need to be obtained. This data should be taken at the project site. If this is not possible, use the closest representative site. Identify requirements for a spot weather forecast and associated National Weather Service Forecast Office. Identify the respective NWS Forecast Office and delete other offices.  **A Spot Weather Forecast from the National Weather Service is required prior to ignition, for each day active ignition is occurring on the burn, and any days the fire is actively spreading to determine holding, mop up or patrol staffing needs. A smoke management forecast should be obtained when residual smoke has potential to impact smoke-sensitive areas.** The National Weather Service (Salt Lake City or Grand Junction) Forecast Office can be reached at (801-524-5066 (SLC) or 970-256-9463 (GJT)) or a spot weather forecast can be requested online at <https://www.weather.gov/spot/monitor/>.  An email will automatically be sent to the email address used in the request. If others need an email, then place that email in the Remarks section. When requesting a spot forecast from the Grand Junction Forecast Office, requester must call office to inform forecaster that a spot weather forecast has been requested.    Projected weather beyond the ignition operation and need for additional Spot Weather Forecasts should be taken into account in order to minimize the risk of a later escape. The Prescribed Fire Burn Boss or other person in charge of mop-up and patrol will also obtain and review the spot weather or general fire weather forecast to determine if mop up and patrol resources are adequate. A copy of the forecast will be included in the Project File. Local weather phenomena and considerations include (entered local weather information).  Spot forecasts should be requested no more than 24 hours in advance. Beyond this time, planning information should be used, including the fire weather planning forecast, weather activity planner and fire weather point forecast matrix, along with Predictive Services Forecasters as the Great Basin Coordination Center. For large burn plans, please coordinate multiple spot forecast requests with your local NWS office. It is strongly recommended that the requestor indicate the time he or she needs the forecast returned. If not specified in a spot forecast request, the NWS assumes the forecast is needed immediately.  Within Utah, a Clearing Index must be obtained from the National Weather Service to determine if smoke management requirements will be met. A clearing index is ordinarily issued for all prescribed fire spot forecasts, but a clearing index value is also provided every day by airshed. | | | | |

**C. Notifications**

|  |
| --- |
| The Notification Plan will include a list of agencies, organizations (including media), and individuals that are to be notified prior to ignition, with information necessary to make the contacts. Reasonable efforts will be made to notify adjacent landowners (or their agents) and other potentially impacted publics. Attempts or actual notifications (or both) will be documented with date and method and placed in the Project File. |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Who** | | **When1** | **Phone Number and/or e-mail** | **Responsibility** | | **Date** | **Contact Type2** |
| J. Bradley Washa – Utah BLM State Fuels Specialist | | B, A | 801-539-4246 (o)  801-558-6998 (c) | Burn Boss | |  |  |
| Paul Corrigan – Utah Interagency Smoke Coordinator | | D | 801-440-1350 (c) | Burn Boss | |  |  |
| www.utahfireinfo.gov | | B |  | Fire Education and Mitigation Specialist | |  |  |
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|  | |  |  |  | |  |  |
| 1 When to Notify | Before **(B)**: The day prior to burn day.  Day of **(D)**: Prior to ignition on burn day.  After **(A)**: After burn is completed. | | | 2 Contact Type | Phone Contact (PC)  Phone Message (PM)  Direct Contact (DC)  E-mail (EM) | | |

# ELEMENT 10 - BRIEFING

**Operational Briefing** (Responsibility – Prescribed Fire Burn Boss)

* Burn Organization and Assignments
* Prescribed Fire Objectives and Prescription
* Description of Prescribed Fire Project Area and Provide Maps
  + Special Considerations and Sensitive Features
* Expected Weather and Fire Behavior 
  + Make Weather Observer Assignment and Set Collection Schedule
* Communications
* Ignition Plan and Possible Problems
* Aerial Ignition Plan and appropriate safety procedures (if applicable)
* Holding Plan and Possible Problems
* Contingency Plan and Assignments
* Wildfire Declaration
  + Identify High Value and Areas of Special Concern
  + Identify Mitigation Measures, Procedures, Project Boundary, Etc.
* Safety and Medical Plan along with Risk Assessment/JHA
  + Identify On-Site Personnel with Medical and Helitack Qualifications

**Crew Briefing** (Responsibility - Ignition Specialist and Holding Special­ist Functions)

* Make Crew Assignments, Record Names, and Review Chain of Command
* Make Equipment Assignments and Physically Test Equipment Prior to Ignition
* Assign Radio Frequencies and Physically Test All Radios Prior to Ignition
* Review Contingency Plan, Wildfire Conversion, Procedures, and Mitigation
* Review Everyone's Personal Protective Equipment
* Discuss Probable Starting and Ending Times
* Assure Everyone Knows Position, Responsibility, and Procedures

# ELEMENT 11 - ORGANIZATION AND EQUIPMENT

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Minimum Workforce & Equipment**  **Needed to Conduct Burn** | | | | | | | |
| 1. **Positions** | | | | | | | |
|  |  | **Low** | | **Desired** | | **High** | |
| **Position** | **ICS Code or Unit of Measure** | **Total Amount** | **Line Building Rate** | **Total Amount** | **Line Building Rate** | **Total Amount** | **Line Building Rate** |
| Prescribed Fire Burn Boss | RXBX |  | 0 |  |  |  |  |
| Ignition Specialist Function | Specify Qual. |  |  |  |  |  |  |
| Holding Specialist Function | Specify Qual. |  |  |  |  |  |  |
| Fire Effects Monitor | FEMO |  |  |  |  |  |  |
| Lookout | Specify Qual. |  |  |  |  |  |  |
| Engine Boss, Operator, and Crew | ENGB/ENOP |  |  |  |  |  |  |
| Ignition Crew | FFT2 |  |  |  |  |  |  |
| Holding Crew | FFT2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **B. Equipment** |  |  | 0 |  | 0 |  | 0 |
| Engine (Type) |  |  |  |  |  |  |  |
| Engine (Type) |  |  |  |  |  |  |  |
| Dozer (Type) |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Helicopter |  |  |  |  |  |  |  |
| Helitorch |  |  |  |  |  |  |  |
| Plastic Sphere Dispenser |  |  |  |  |  |  |  |
| **C. Supplies** | | | | | | | |
| Drip Torches |  |  |  |  |  |  |  |
| Chain Saws |  |  |  |  |  |  |  |
| Hand Tools |  |  |  |  |  |  |  |
| Fuel |  |  |  |  |  |  |  |
| Portable Water Tanks |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Total Personnel On Scene** | |  |  |  |  |  |  |
| **Total Line Production Rate** | | | **0** |  | **0** |  | **0** |
| Line production rates from personnel should not be duplicated for equipment (i.e. holding crew members that are assigned to an engine should not be included in personnel total). MS Word will perform production rate calculations by right clicking on each numeric field at bottom of table and selecting “update field.” For MS Word to do the calculations, all boxes need to have a number in them (i.e. place a zero “0” if there no rate of production). Prepare must manually enter Total Personal On Scene. Place any assumptions made when identifying production rates. Line Production Rates for Initial Action and/or documented empirical evidence should be used to justify minimum holding resources required. Line production rates should be compared to fire behavior outputs when identifying resource needs.  No less than the minimum implementation organization described in the approved Prescribed Fire Plan may be used for implementation. The complexity of each prescribed fire or phase of fire(s) determines the organization(s) needed to safely achieve the objectives specified in the prescribed fire plan. Calculations were taken from the Wildland Fire Incident Management Field Guide based on fuel model xx. | | | | | | | |

**Organization Chart**

|  |
| --- |
| This is an example organization chart; locally developed organization chart can be used in place of this chart. Add boxes as needed for additional personnel assigned for each operational period. Organization chart may be completed on the day of the burn and must be completed for each operational period. Aerial Ignition operations will require an additional organization chart within the air operations plan in accordance with the Interagency Aerial Ignition Guide. If aerial ignition is not planned, remove box from organization chart. When multiple units are identified, allocation of resources needs to be addressed when burning multiple units simultaneously or in succession. Under Element 11, multiple Organization and Equipment lists and Organization Charts may be required if there are multiple prescriptions or different complexities within the burn plan including blacklining.  Additional resources may be assigned to the project without amending the burn plan if the addition of these resources does not change the complexity of the burn or require additional supervisory positions. These changes must be documented in the Unit Log. Any changes to the planned organization that reduce capability to less than minimum organization or capability identified or increase complexity will require an amendment. As the prescribed fire progresses from ignition to holding to mop up and patrol, specified capabilities and/or types of resources may be adjusted. |

# ELEMENT 12 – COMMUNICATION

1. **Radio Frequencies**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Channel** | **Function** | **Frequency** | | **Band Width** | **Assignment** | **Remarks** |
| COMMAND | | | | | | |
|  |  | TX:  RX:  Tone: |  |  |  |  |
|  |  | TX:  RX:  Tone: |  |  |  |  |
| TACTICAL | | | | | | |
|  |  | TX: RX: |  |  |  |  |
|  |  | TX: RX: |  |  |  |  |
|  |  | TX: RX: |  |  |  |  |
| AIR OPERATIONS | | | | | | |
|  |  | TX: RX: |  |  |  |  |
|  |  | TX: RX: |  |  |  |  |
| OTHER | | | | | | |
|  |  | TX: RX: |  |  |  |  |
|  |  | TX: RX: |  |  |  |  |
| REMARKS | | | | | | |
| If aerial ignition is used, assign a specific radio frequency for use between aircraft and Prescribed Fire Burn Boss and/or Ignition Specialist Function. Also include any required telephone numbers in the remarks section.  Positive communications with a dispatch center is required via radio, cellular phone, and/or satellite phone, prior to implementing burn project. Required telephone numbers should be included in the Notification Plan. | | | | | | |

# ELEMENT 13 - PUBLIC AND PERSONNEL SAFETY AND MEDICAL

1. **Safety Hazards**

|  |
| --- |
| **Firefighter** |
| Identify and analyze the safety hazards unique to the individual prescribed fire project and potential impacts to personnel safety. Include safety hazards (including smoke exposure and impacts) as identified in the Risk Assessment/Job Hazard Analysis.  All personnel who are within the active prescribed fire area are required to wear personal protective equipment. |
| **Public** |
| Identify and analyze the safety hazards unique to the individual prescribed fire project and potential impacts to public safety. Identify procedures for non-operational personnel (i.e. media, researchers, cooperators, agency administrators, dignitaries, other agency personnel, etc.) visiting prescribed fire project. |

1. **Measures Taken to Reduce the Hazards**

|  |
| --- |
| Identify mitigating measures taken to reduce safety hazards identified above. Describe provisions to be made for public safety (include closure of area, signs placed on roads, etc.).  A Job Hazard Analysis (JHA), Risk Assessment (RA), or other agency-specific risk analysis is required for each prescribed fire.  The BLM Risk Management Process will be used in place of the Job Hazard Analysis. The Risk Assessment worksheets will be attached as ‘Appendix D’ to the prescribed fire plan. |

1. **Emergency Medical Procedures**

|  |
| --- |
| In the event of serious accidents or injuries, the Medical Incident Report (MIR) should be used and the burn boss shall be notified immediately. Individuals with medical qualifications (i.e. First Responder, EMT, Paramedic) and helitack should be identified at the pre-burn briefing. The burn boss will insure on-site response is initiated (if not already in progress) and coordinate additional response needs through the MIRs. |
| FOR A NON-EMERGENCY INCIDENT, WORK THROUGH CHAIN OF COMMAND TO REPORT AND TRANSPORT INJURED PERSONNEL AS NECESSARY.  FOR A MEDICAL EMERGENCY: IDENTIFY ON SCENE INCIDENT COMMANDER BY NAME AND POSITION AND ANNOUNCE "MEDICAL EMERGENCY" TO INITIATE RESPONSE FROM PRESCRIBED FIRE BURN BOSS/DISPATCH.   1. **Contact** Prescribed Fire Burn Boss **and xxxx Interagency Fire Center via radio** or at (xxx-xxx-xxxx). 2. **Incident Status**: Provide incident summary (include number of patients) and command structure  * Severity of Emergency/Transport Priority   **Red / Priority 1** – Life or limb threatening injury or illness – Immediate Evacuation  Yellow / Priority 2 – Serious injury or illness – Delayed Evacuation  Green / Priority 3 – Minor Injury or illness – Non-Emergency transport   * Nature of Injury or Illness & Mechanism of Injury * Transportation Requested * Patient Location * Incident Name * On Scene Incident Commander * Patient Care  1. **Initial Patient Assessment and Treatment**: See IRPG page 106 2. **Transport Plan**: Evacuation Location - (Descriptive Location (drop point, intersection, etc.) or Lat. / Long.) Patient ETA to Evacuation Location.   Helispot/Extraction Site Size and Hazards   1. **Additional Resources/ Equipment Needs**: Paramedic/EMT, Crews, Immobilization Devices, AED, Oxygen, Trauma Bag, IV/Fluid(s), Splints, Rope rescue, Wheeled litter, HAZMAT, Extrication 2. **Communications**: Identify State Air/Ground EMS Frequencies and hospital contacts 3. **Contingency**: Considerations - If primary options fail, what actions can be implemented in conjunction with primary evacuation method? Be thinking ahead. 4. **Additional Information**: Updates/Changes, etc.   Remember: Confirm ETAs or resources ordered. Act according to your level of training. Be alert, keep calm, think clearly, act decisively.  For burn injuries, after on-site medical response, initial medical stabilization, and evaluation are completed, the District Manager should discuss and coordinate with the attending physician to ensure that a firefighter whose burn injuries meet any of the burn injury criteria is appropriately referred to the nearest regional burn center. Reference Burn Injury Assessment in the pink section on page 111 in the IRPG. |

1. **Emergency Evacuation Methods**

|  |
| --- |
| The first option is to transport the injured person(s) via on-site vehicles to (identify medical facilities and describe directions to emergency facilities). |
| For minor injuries, individuals who are ambulatory will be transported to (identify nearest and preferred medical facility). Directions from the burn unit to the medical facility are as follows: (described directions to medical facility).  Medical facility will be contacted and advised of injuries and eta for transport of injured individual. |
| The second option is to transport the injured person(s) to meet an ambulance at (describe a location known to both project personnel and emergency services). |
|  |
| The third option is to transport the injured person(s) to the nearest helispot to be evacuated via air ambulance. |
| The helispot location is (describe the location relative to the project area and for the air ambulance including a Latitude/Longitude). |
| The fourth option is to care for and protect the injured person(s) while emergency services respond on-site to extract and transport the injured. Send personnel to meet and lead emergency services to the site. |
| The project area location is (describe directions for responding emergency services and include a Lat/Long). Individual from the burn project will be sent to (described location) to lead EMS to injured personnel. |

**E. Emergency Facilities**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **EMERGENCY TRANSPORTATION** | | | | | | | | | | | | |
| **NAME** | | **TELEPHONE** | **LOCATION** | | | | | | | | **PARAMEDICS** | |
| **YES** | **NO** |
| At least one air ambulance | |  |  | | | | | | | |  |  |
| must be identified | |  |  | | | | | | | |  |  |
|  | |  |  | | | | | | | |  |  |
|  | |  |  | | | | | | | |  |  |
| **HELISPOT CLOSEST TO PROJECT** | | **LAT.** |  | | | | **LONG.** | |  | | | |
| **HOSPITALS & MEDICAL FACILITIES** | | | | | | | | | | | | |
| **NAME** | **ADDRESS AND LATITUDE AND LONGITUDE** | | | **TRAVEL TIME**  **( MIN)** | | **PHONE** | | **HELIPAD** | | | **BURN CENTER** | |
| **AIR** | **GROUND** | **YES** | | **NO** | **YES** | **NO** |
|  |  | | |  |  |  | |  | |  |  |  |
| University of Utah Medical Center | 50 North Medical Drive  Salt Lake City, Utah  40°46.01 N x 111°50.19 | | |  |  | 801.581.2121 | | X | |  | X |  |
| St Mary’s Hospital | 2635 N. 7th Street  Grand Junction, CO  39° 05.42 X 108° 33.74 | | |  |  | 970.244.2273 | | X | |  |  | X |
| Dixie Regional Medical Center | 1380 E Medical Cnt Dr  St. George, UT | | |  |  | 435.251.1000 | | X | |  |  | X |
| Lion's Burn Center  University Medical Center | 1800 W. Charleston, Las Vegas, NV | | |  |  | 702.383.2268 | | X | |  | X |  |
|  |  | | |  |  |  | |  | |  |  |  |

# ELEMENT 14 - TEST FIRE

1. **Test Fire Provisions and Planned Location**

|  |
| --- |
| Provisions for a test fire are required and results must be documented. The test fire should be ignited in a representative location and in an area that can be easily controlled. The purpose of the test fire is to verify that the prescribed fire behavior characteristics will meet management objectives and to verify predicted smoke dispersion. In many applications, analysis of the initial ignitions may provide adequate test fire results. On multiple-day projects, evaluation of current active fire behavior, in lieu of a test fire, may provide a comparative basis for continuing and must be documented. The prescribed fire burn boss should determine if observed fire behavior will achieve prescribed fire objectives during the operational period to continue with active ignition. |

1. **Test Fire Documentation**

|  |  |
| --- | --- |
| **Location:** |  |

|  |  |
| --- | --- |
| **Date and Time:** |  |

|  |  |
| --- | --- |
| **Weather/Fuels Conditions** | |
| **Cloud Cover %** |  |
| **Temperature** |  |
| **Relative Humidity** |  |
| **Fine Dead Fuel Moisture** |  |
| **Wind Speed** |  |
| **Fuels** |  |

|  |  |
| --- | --- |
| **Test Fire Results** | |
| **Flame Length** |  |
| **Rate of Spread** |  |
| **Smoke Direction of Travel** |  |
| **Smoke Rise AGL** |  |
| **Other** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **The test fire meets the prescription parameters** | **Yes** |  | **No** |  |

# ELEMENT 15 - IGNITION PLAN

|  |
| --- |
| 1. **Firing Methods & Devices** |
| The means by which a fire is ignited, such as hand-held drip torch, fusee, hand held launchers, ATV/UTV mounted ignition devices, helitorch, and/or terra torch. If aerial ignition is specified in the Prescribed Fire Plan, an Air Operations Plan will be included as Appendix I to the Prescribed Fire Plan. For additional details related to aerial ignition reference the *Interagency Helicopter Operations Guide and Interagency Aerial Ignition Guide.*  The aerial ignition organization will be included with the implementation Organization Chart (Element 11). Major changes to ignition methods including ground ignition to aerial ignition; aerial ignition to hand ignition; hand drip torch ignition to use of terra torch ignition (includes UTV mounted ignition devices) require an amendment to the burn plan, if not already identified. |
| 1. **Ignition Techniques, Patterns, & Sequences** |
| Ignition technique is any method of igniting a wildland area to consume the fuel in a prescribed pattern (e.g., head, backing, or flanking fire).  Patterns and Sequences are the overall progression of ignition events to apply fire to a given area and the manner in which a prescribed fire is ignited. The distance between ignition lines or points and the sequence of igniting them is determined by weather, fuel, topography, ignition technique, and other factors which influence fire behavior and fire effects should be discussed. If multiple compartments within the project are to be ignited, this should be further discussed on the preferred sequence of igniting the compartments. The effect of ignition patterns on smoke management, (e.g. in continuous fuels backing fire has a shorter smoldering period and produces less total smoke than head fire; aerial ignition may increase combustion efficiency and shift the emissions profile earlier in the day when dispersion is better, etc.).  During active ignition, actual firing patterns, techniques, sequences, patterns and staffing will be determined and adjusted to meet objectives as dictated by topographic, fuels and weather factors. The Ignition Specialist and Holding Specialist functions are expected to work closely together to see that the ignition pattern and sequence do not present concern for control of the burn. The (wind or slope and aspect) should be the dominant influence for fire behavior and the primary factor in establishing the ignition pattern and sequence for the unit. Flame length and intensity will dictate ignition technique and strip width. The ignition pattern and sequence found below and on the attached map are suggested and can be modified to better suit the current conditions experienced on the day of the burn  Ideally, the test fire would be ignited (location). Overall, strip head firing or dot firing will be utilized to bring fire down through the unit. This may need to be in a general backing fashion to minimize impacts to the residual stand. Following the test fire, ignition can continue along (location). Once a sufficient blackline (headstrip) is established as an anchor, flanking fire can be taken initially down the (location) fireline and flank. This would then be followed with igniting off the (location) flank of the compartment. As the flanks become secure, fire should be backed down the interior of the unit towards (location). To conclude the ignition, the (location) flank should be tied off and secured. |
| **C. Minimum Ignition Staffing** |
| Identify positions within the ignition organization to be utilized. Relationship to holding organization should be further identified including use of holding crew for transporting fuel and use of ignition crew for holding activities, if required. If aerial ignition is occurring, a brief discussion on staffing should occur in this section along with full details within the Air Operations Plan found in Appendix I.  Minimum capabilities needed for ignition are identified under Element 11 - Organization and Equipment. The qualifications for the ignition specialist functions should be commensurate with the complexity of the project and at a minimum be qualified at the Firing Boss (FIRB) level. The Ignition Specialist function will be held at the (ICS position) level. |

# ELEMENT 16 - HOLDING PLAN

|  |
| --- |
| 1. **General Procedures for Holding** |
| Describe general procedures to be used for operations to maintain the fire within the primary unit and project area, meet project objectives, and protect values at risk until the fire is declared out. Identify closest water source(s). |
| 1. **Critical Holding Points and Actions** |
| Describe critical holding points (if any) and mitigation actions. Critical holding points should be identified on the project map. If line building production rates of on-site resources, identified in Element 11, do not exceed expected perimeter increase (i.e. light flashy fuels), justification and/or mitigation actions need to be identified. |
| 1. **Minimum Organization or Capabilities Needed** |
| Different organizations may be identified for different phases of implementation (i.e. holding v. mop-up and patrol, different ignition operations, different prescriptions). If flexibilities are built into the Prescribed Fire Plan, there must be a clear statement as to the work capability requirements of the resources at the various stages of the prescribed fire.Multiple prescriptions may require identifying multiple complexity ratings and developing multiple holding organizations.  Minimum capabilities needed for holding are identified under Element 11 - Organization and Equipment. The qualifications for the Holding Specialist function should be commensurate with the complexity of the project. The Holding Specialist function will be held at the (ICS position) level. On burn day and subsequent days of the prescribed fire, a mix of the number and kinds of hand crews and engines may be modified as long as stated production capabilities are not compromised. As the prescribed fire progresses from ignition to holding to mop up and patrol, specified capabilities and/or types of resources may be adjusted. |
| **D. Mop-up and Patrol** |
| The Mop-up and Patrol portion of the Holding Plan will provide a description of the procedures to be implemented between the time of ignition and the time the prescribed fire is declared out. The prescribed fire burn boss will determine resource needs for mop up based on current and expected fire behavior and weather. Identify within this section who is responsible and actions to be taken during mop-up. Conditions for leaving burn unstaffed prior to being declared out should be identified. A separate Mop-up and Patrol Plan can be added as an appendix if desired.  Firefighter smoke exposure can be significant when holding, this has documented negative health effects. Especially for mop-up and patrol phases, there may be options to reduce that exposure. Steps to minimize personnel exposure to smoke should be addressed here, e.g. rotate crews, postpone mop-up until fuels have self-extinguished, monitor lines from positions with relatively clear air, do not “chunk” piles in an effort to get slightly more consumption, etc. |

# ELEMENT 17 - CONTINGENCY PLAN

|  |  |
| --- | --- |
| **A. Management Action Points or Limits** | |
| The contingency plan is the portion of the prescribed fire plan that considers low probability but high consequence events and the actions needed to mitigate them. Contingency planning is the determination of what additional actions or additional resources (or both) are needed to keep the prescribed fire within the scope of the prescribed fire plan. At a minimum, this element will address contingency options related to maintaining the prescribed fire within the ignition unit and or prescribed fire project area. Contingency planning can also address not meeting prescribed fire objectives, critical holding points, smoke management considerations such as impacts to critical smoke receptors, staffing, accidents, “incidents within incidents” and other unanticipated events. The use of the below narrative descriptors maybe used or the optional Management Action Plan Table Format as identified. If using the MAP Tables, additional tables can be added, or unused tables removed.  If any of the following situations occur, contingency actions will take place:   1. Fire threatens the project boundary. 2. More than three simultaneous spot fires and/or slop overs occur. 3. Fire outside of the primary unit boundary. 4. Smoke management objectives being impacted. 5. Potential for costs to control exceed available project funds. | |
| **Management Action Point - Documentation Element** | **Management Action Point Narrative** |
| Designator and Description: | Enter unique identifier for management action point with examples to include fire threatens the project boundary, more than three simultaneous spot fires and/or slop overs occur, fire outside of the primary unit boundary, smoke management objectives being impacted, potential for costs to control exceed available project funds, etc. |
| Condition: | State when the recommended actions will be implemented. Example: “When the fire is anticipated to reach within 24 hours or has reached/crossed the MAP.” |
| Management Intent: | Describe the intent of planning and implementing the actions at this MAP. An example such as “to meet the objective of protecting the private land in Park Summit” or “to keep the fire contained on federal lands.” |
| Recommended Action(s) to Consider: | Described the actions to be taken for the MAP. When listing actions, a key word to use is “consider.” An example would be, “Consider using road to burn off to limit the spread of the fire to the east toward value at risk.” |
| Recommended Resources: | Describe the resources or capability needed to carry out the recommended actions. |
| Time Frame: | Enter the relevant timeframes such as the maximum expected resource response time or the maximum time to initiate the recommended actions. |
| Describe the consequences of not taking the recommended action(s) (Optional): | An example such as; “There is a high likelihood that private land will be burned and structures may be lost” or “there is a high probability that fire will burn off of federal lands and threaten/impact power transmission lines”. |
| Responsibility: | Identify who is responsible for implementing each action. For example, “Holding Specialist” for holding fire along the road. |
| Date Each Action is Initiated (Optional): | If a specific action is implemented, record the date initiated. |
| **Management Action Point - Documentation Element** | **Management Action Point Narrative** |
| Designator and Description: |  |
| Condition: |  |
| Management Intent: |  |
| Recommended Action(s) to Consider: |  |
| Recommended Resources: |  |
| Time Frame: |  |
| Describe the consequences of not taking the recommended action(s) (Optional): |  |
| Responsibility: |  |
| Date Each Action is Initiated (Optional): |  |
| **Management Action Point - Documentation Element** | **Management Action Point Narrative** |
| Designator and Description: |  |
| Condition: |  |
| Management Intent: |  |
| Recommended Action(s) to Consider: |  |
| Recommended Resources: |  |
| Time Frame: |  |
| Describe the consequences of not taking the recommended action(s) (Optional): |  |
| Responsibility: |  |
| Date Each Action is Initiated (Optional): |  |
| **Management Action Point - Documentation Element** | **Management Action Point Narrative** |
| Designator and Description: |  |
| Condition: |  |
| Management Intent: |  |
| Recommended Action(s) to Consider: |  |
| Recommended Resources: |  |
| Time Frame: |  |
| Describe the consequences of not taking the recommended action(s) (Optional): |  |
| Responsibility: |  |
| Date Each Action is Initiated (Optional): |  |
| **Management Action Point - Documentation Element** | **Management Action Point Narrative** |
| Designator and Description: |  |
| Condition: |  |
| Management Intent: |  |
| Recommended Action(s) to Consider: |  |
| Recommended Resources: |  |
| Time Frame: |  |
| Describe the consequences of not taking the recommended action(s) (Optional): |  |
| Responsibility: |  |
| Date Each Action is Initiated (Optional): |  |

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| **B. Actions Needed** | | | | |
| If the objectives are not being met, the Contingency Plan is implemented. Describe action to be taken.  If the contingency actions are successful at bringing the project back within the scope of the Prescribed Fire Plan, the project may continue. Contingency actions will include (described actions to be taken). If contingency actions are not successful by the end of the next burning period, then the prescribed fire will be converted to a wildfire. | | | | |
| **C.** **Minimum Contingency Resources and Maximum Response Time(s)** | | | | |
| **Resource** | **Agency & Location** | **Maximum**  **Response Time** | **Conformation of Availability\*** | |
| **Yes/No** | **Date** |
| Other additional state, county, municipal, or federal resources available. |  |  |  |  |
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| \* To be completed within one day of the burn and adjusted during course of extended burning conditions. | | | | |

# ELEMENT 18 - WILDFIRE DECLARATION

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| 1. **Wildfire Declared By** |
| The Prescribed Fire Plan will specify who has the authority to declare a wildfire. A prescribed fire must be declared a wildfire by those identified in the plan when that person(s) determines that the contingency actions have failed or are likely to fail and cannot be mitigated by the end of the next burning period.  A prescribed fire, or a portion or segment of a prescribed fire, must be declared a wildfire by the Prescribed Fire Burn Boss, when either or both of the following criteria are met:   * Prescription parameters are exceeded and holding and contingency actions cannot secure the fire by the end of the next burning period, or, * The fire has spread outside the project area or is likely to do so, and the associated contingency actions have failed or are likely to fail and the fire cannot be contained by the end of the next burning period.   A prescribed fire can be declared a wildfire for reasons other than those identified above, if events cannot be mitigated as determined by the burn boss and agency administrator.  A prescribed fire declared a wildfire cannot be returned to prescribed fire status until the appropriate level of review has been completed. When a prescribed fire is declared a wildfire, managers still have the full range of fire management options available based on Land Use Plan (LUP) and Fire Management Plan (FMP) objectives. If a prescribed fire is declared a wildfire, a wildfire number will be assigned and all wildfire management costs will be charged to that number. |
| 1. **IC Assignment** |
| Identify who will be the IC and what positions will be used to transition to an ICS organization.  Should a wildfire be declared, the Prescribed Fire Burn Boss (or other on-site position can be identified) will become the Incident Commander until relieved or replaced. The IC will organize all on-site resources for a safe and aggressive response. Personnel within the prescribed fire organization will transition into ICS wildfire positions they are qualified to carry out. The IC will order additional suppression resources identified in the Contingency Plan as well as any other required resources necessary to support the suppression effort.  Upon a wildfire conversion occurring, all overhead personnel will begin to document actions taken prior to wildfire conversion and subsequent actions on a Unit Log. After the incident is contained, the Prescribed Fire Burn Boss will submit a post fire report documenting weather, resources on site, ignition operations, holding actions, and other pertinent data. All prescribed fires declared a wildfire will have a review initiated by the appropriate level Agency Administrator. The level and scope of the review will be determined by agency policy. |
| 1. **Notifications** |
| Identify the notifications to be made upon wildfire conversion and who will make them.  The Prescribed Fire Burn Boss/IC will notify (specify Dispatch Center) and the (specify unit) Fire Management Officer (FMO) of the wildfire and identify himself/herself as the IC. FMO will then notify the (specify District Manager/District Ranger/Park Superintendent/Refuge Manager) and the (State/Regional) Fuels Specialist. (Dispatch Center) will notify pertinent contacts listed on the notification plan (may not include all contacts in the notification plan) of the wildfire and the current situation.  Burn boss will notify (specify regional fire management officer/state fuels management specialist) within 24 hours of an escape, threat of an escape, or activation of contingency resources identified in the plan, or any prescribed fire that requires additional resources or operational time not accounted for in the IAP or prescribed fire plan. |
| 1. **Extended Attack Actions and Opportunities to Aid in Fire Suppression** |
| Describe the containment strategy, identifying any containment opportunities along with high value and special areas of concern. Suppression activity for a wildfire that has not been contained or controlled by initial attack or contingency forces and for which more firefighting resources are arriving, en route, or being ordered by the initial attack incident commander is defined as Extended Attack. Use of the Wildland Fire Decision Support System (WFDSS) or equivalent is required when a wildfire escapes initial attack. The WFDSS is an analysis and decision process that allows for improve decision documentation, risk assessment/decision support, and operational implementation.  Management response to the declared wildfire is based on objectives established in the LUP and FMP. Contingency plans should be developed to identify critical values at risk, actions and resources needed, and other information necessary that may be utilized as an aid to determine and implement initial response actions when a wildfire is declared.  Ignition will cease upon notification of fire outside of the primary and secondary units except as needed to secure lines. The appropriate management response will be used in order to flank the fire with suppression resources until the forward rate of spread is stopped. The containment strategy will be to utilize safe anchor points and create direct fire line where feasible and indirect fire line, including burning out, depending upon location of natural barriers and roads. The FMO and/or IC, Resource Advisor, and Agency Administrator may develop a Wildland Fire Decision Support System (WFDSS) document which will determine the appropriate management response to the wildfire declaration. Use of the WFDSS is required when a wildfire escapes initial attack.  Opportunities to aid in fire suppression include: utilize existing roads (identify specific roads) in the vicinity of the burn unit, moist drainages, and changes in fuels (i.e. transition from brush field into timber fuel models).  Areas of high value and special concerns include: (identify areas of high value or special concern). |

# ELEMENT 19 - SMOKE MANAGEMENT AND AIR QUALITY

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| --- | --- | --- | --- | --- | --- | --- |
| 1. **Compliance** | | | | | | |
| Describe how the project will comply with State, Tribal, and Federal air quality regulations.  This burn plan complies with the Utah smoke management plan. For full information, see <https://smokemgt.utah.gov/static/pdf/SMP.pdf>. The following forms should be completed through the Utah smoke portal (smokemgt.utah.gov), and if the portal is unavailable please contact the smoke coordinator at: 801-440-1350, [paul.corrigan@usda.gov](mailto:paul.corrigan@usda.gov), [paulcorrigan@utah.gov](mailto:paulcorrigan@utah.gov)   * **Register and submit pre-burn information and this prescribed fire plan**. This can be submitted as far ahead of time as the information is available. Ordinarily this is done upon completion of the prescribed fire plan, but the burn boss should confirm that. * **Burn Request.** At least two days before ignition. * **Daily Emissions Report.** One report for each day of active ignition, within two days post-burn **-or-** at the end of the burn window if ignition does not occur. | | | | | | |
| 1. **Permits to be Obtained** | | | | | | |
| **Smoke Management Number:** | |  | | | | |
| Identify what permits, if any, need to be obtained.  The National Weather Service (NWS) will provide a value for atmospheric dispersion (the clearing index) in the spot weather forecast upon request. A clearing index value is also forecast daily by the Salt Lake NWS for each airshed in the state ([https://www.weather.gov/slc/ClearingIndex#tab-3](https://www.weather.gov/slc/ClearingIndex%23tab-3)). Either source is acceptable as a clearing index value for smoke purposes.  For days when the maximum clearing index is forecast to be 500 or greater, no additional documentation is required beyond section A, Compliance.  If the clearing index is below 500, two options are available: **De minimis**, and **HB92**   1. De minimis – This option is size-limited to 20 acres of broadcast burning or 30,000 cubic feet of piled material per day. To calculate pile volume use adjusted volume from the pile calculator (<https://depts.washington.edu/nwfire/piles/>). With approval of the director, ignition may occur when the National Weather Service clearing index is between 400 and 499: 2. This approval is based on fuel type, tons of emissions, proximity to sensitive receptors, downwind values, distance from other burning, current and forecast air quality, and number of requests to burn within the airshed. 3. To request approval, the land manager is required to notify the coordinator with the above information via email or phone by 0800 hours the morning of the burn. The coordinator will make a recommendation to the director, and contact the burner with the decision. 4. If approved for de minimis burning with a clearing index below 500, the prescribed fire burn boss shall submit to the coordinator: hourly photographs, an hourly description of the smoke plume, hourly meteorological conditions, and a record of any smoke-related complaints. This can be done with the standard form for prescribed fire weather/smoke observations (Utah prescribed fire plan template appendix G) or equivalent. 5. **HB92 –** This is an option for potentially conducting prescribed fires with no minimum clearing index or maximum size limit. If using this option please contact the smoke coordinator ahead of time, the week prior if possible. The land manager is required to provide a modeling demonstration to show how the burn will affect air quality. See links under HB92 tab at: [smokemgt.utah.gov](file:///C:\Users\pcorrigan\Documents\Smoke\Policy\Utah%20Rx%20Plan%20Template\smokemgt.utah.gov). | | | | | | |
| 1. **Smoke Sensitive Receptors** | | | | | | |
| **Identify any non-attainment or Class I airsheds within 15 miles:** | | Identify smoke sensitive areas including population centers, recreation areas, hospitals, airports, transportation corridors, schools, non-attainment areas, Class I air sheds, and restricted areas that may be impacted. | | | | |
| **Receptor** | **Direction** | | **Distance** | **Receptor** | **Direction** | **Distance** |
|  |  | |  |  |  |  |
|  |  | |  |  |  |  |
| 1. **Potentially Impacted Areas** | | | | | | |
| Special considerations must be taken to address smoke when the project is in a non-attainment area for a National Ambient Air Quality Standards including insuring compliance with State Implementation Plan provisions. Projects which will potentially impact Class I areas should address any efforts to minimize smoke impacts on visibility. Comply with all local, State, Tribal and Federal pre-burn and post-burn data reporting requirements. Appendix A – Maps with 4. Smoke Impact Area Map(s) contain maps identifying potentially impacted areas. | | | | | | |
| 1. **Mitigation Strategies and Techniques to Reduce Smoke Impacts** | | | | | | |
| Include modeling outputs, mitigation strategies, and techniques to reduce the impacts of smoke production. For emissions estimates, [BlueSky](https://tools.airfire.org/playground/v3/emissionsinputs.php) is suggested for broadcast burns and the [UW Pile Calculator](https://depts.washington.edu/nwfire/piles/) for pile burns. | | | | | | |

# ELEMENT 20 - MONITORING

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| 1. **Fuels Information (forecast and observed) Required and Procedures** |
| Prescribed fire monitoring is defined as the collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting a management objective. Monitoring is required to ensure that prescribed fire plan objectives are met. For a prescribed fire, at a minimum specify the weather (forecast and observed), fire behavior and fuels information, and smoke dispersal monitoring required during all phases of the project and the procedures for acquiring it, including who and when. |
| 1. **Weather Monitoring Required and Procedures** |
| Weather observations should be measured (by who) and recorded on a (specify time frame) basis on the Weather / Fuels / Fire Behavior / Smoke Observations form found in Appendix G. |
| 1. **Fire Behavior Monitoring Required and Procedures** |
| Fire behavior observations should be measured (by who) and recorded on a (specify time frame) basis on the Weather / Fuels / Fire Behavior / Smoke Observations form found in Appendix G. |
| 1. **Monitoring Required to Ensure Prescribed Fire Plan Objectives are Met** |
|  |
| 1. **Smoke Dispersal Monitoring Required and Procedures** |
| Smoke observations should be measured (by who) and recorded on a (specify time frame) basis on the Weather / Fuels / Fire Behavior / Smoke Observations form found in Appendix G. |

# ELEMENT 21 - POST-BURN ACTIVITIES

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| **Post-Burn Activities that Must be Completed** |
| Describe the post-burn activities that must be completed. This may include post-burn reports, safety mitigation measures, and rehabilitation needs including those as a result of pre-burn activities undertaken.  Each operational shift on a prescribed fire should have an informal After Action Review (AAR).  The Prescribed Fire Burn Boss will insure the Prescribed Fire Post Burn Evaluation is completed (Appendix H).  Utah Division of Air Quality, [**Form 5**](http://gacc.nifc.gov/egbc/predictive/docs/2014_SM_Form_5.pdf) – Daily Emission Report must be submitted within two business days of completing ignitions, agencies are required to submit an emission report for each day of large prescribed fire activity to the coordinator.  The Weather/Fuels/Fire Behavior/Smoke Observations (Appendix G) will be collected and placed into the project folder. Any additional Fire Effects Reports will be completed and placed in the project folder.  A post burn evaluation and summary that documents burn day weather, fuel conditions, fire behavior, problems and concerns is required. The report must also indicate if objectives were met and make recommendations for future projects. The prescribed fire results must be compared to the fire treatment objectives and resource objectives that were identified for the project.  All prescribed fire projects will be reported in National Fire Plan Operations Reporting System (NFPORS) within 5 days after being declared out. When accomplishments are completed across fiscal years, only those accomplishments completed in that fiscal year will be recorded. Prescribed fire accomplishments are automatically reported on a monthly basis in the BLM Financial and Business Management System (FBMS) once entered into NFPORS. The district’s Vegetation Treatment geodatabase (VTRT) must also be updated following completion of the project. |

# APPENDICES

1. **Maps**
2. **Vicinity (Required)**
3. **Project/Ignition Unit(s) (Required)**
4. **Fuels or Fuel Model(s)(Optional):  Included  Not Included**
5. **Smoke Impact Area (Required)**
6. **Significant or Sensitive Features (Optional):  Included  Not Included**
7. **Technical Review Checklist**
8. **Complexity Analysis**
9. **Job Hazard Analysis - Risk Assessment**
10. **Fire Behavior Modeling Documentation or Empirical Documentation** (unless it is included in the fire behavior narrative in Element 7 - Prescription)
11. **Smoke Management Plan and Smoke Modeling Documentation** (Optional)
12. **Weather / Fuels / Fire Behavior / Smoke Observations**
13. **Prescribed Fire Post Burn Evaluation**
14. **Air Operations Plan** (if applicable)

## APPENDIX A - MAPS

**1. Vicinity Map**

Map scale will be such that the ignition units can be located on the ground and in sufficient detail to guide implementation.

**2. Project Map**

The project map(s) identify features in sufficient detail to guide and assist in operational implementation of the prescribed fire. The project map should show the unit boundary, topographic features and values identified in the complexity analysis and other features such as fences, power poles, areas to be protected, potential hazards, areas of special concern, and control line locations in most cases. Specific locations of sensitive features such as historical or cultural sites (or both) should not be displayed on project maps. The pre-burn briefing should address location and avoidance techniques.

1. **Values (Optional)**

Specific locations of sensitive values such as historical or cultural sites (or both) should not be displayed on project maps. The pre-burn briefing should address location and avoidance techniques.

**4. Significant or Sensitive Features (Optional):**

**5. Fuels or Fuel Model Map(s):**

Optional, but recommended for long-duration or landscape-level projects. Include as needed to describe the spatial complexity of the fuels. Display the distribution of the fire behavior fuel models or other fuels classifications, such as Fuels Characteristic Classification System (<https://www.fs.fed.us/pnw/fera/fccs/index.shtml>), or through the Interagency Fuel Treatment Decision Support System (<https://iftdss.firenet.gov/#/playground>), within and adjacent to the project and ignition units.

**6. Smoke Impact Area Map(s):**

Required in Utah to be submitted with the Form 3 to identify critical smoke receptors or significant smoke concerns. This is a large-scale map that identifies the potential smoke impact areas for the project. A map depicting both the daytime and nighttime smoke path and down-drainage flow for a minimum of 15 miles from the burn site with smoke-sensitive areas delineated is required by Utah DAQ.

## APPENDIX B - TECHNICAL REVIEWER CHECKLIST

Fill out this checklist based on the guidance provided in the Technical Review section in the *Interagency Prescribed Fire Planning and Implementation Procedures Guide*, PMS 484. Rate each element in the following table with an “S” for Satisfactory, “U” for Unsatisfactory, or “N/A” for Non-Applicable. Use Comment field as needed to support the element rating.

|  |  |  |
| --- | --- | --- |
| **PRESCRIBED FIRE PLAN ELEMENTS** | **RATING** | **COMMENTS** |
| 1. **Signature Page** |  |  |
| 1. **GO-NO-GO Checklists** |  |  |
| 1. **Complexity Analysis Summary** |  |  |
| 1. **Description of the Prescribed Fire Area** |  |  |
| 1. **Goals and Objectives** |  |  |
| 1. **Funding** |  |  |
| 1. **Prescription** |  |  |
| 1. **Scheduling** |  |  |
| 1. **Pre-Burn Considerations** |  |  |
| 1. **Briefing** |  |  |
| 1. **Organization and Equipment** |  |  |
| 1. **Communication** |  |  |
| 1. **Public and Personnel Safety and Medical** |  |  |
| 1. **Test Fire** |  |  |
| 1. **Ignition Plan** |  |  |
| 1. **Holding Plan** |  |  |
| 1. **Contingency Plan** |  |  |
| 1. **Wildfire Conversion** |  |  |
| 1. **Smoke Management and Air Quality** |  |  |
| 1. **Monitoring** |  |  |
| 1. **Post-Burn Activities** |  |  |
| **Appendix A: Maps** |  |  |
| **Appendix C: Complexity Analysis** |  |  |
| **Appendix D: Risk Assessment/JHA** |  |  |
| **Appendix E: Fire Behavior Modeling Documentation or Empirical Documentation** |  |  |
| **Appendix F: Smoke Management Plan and Smoke Modeling Documentation (Optional)** |  |  |
| **Other** |  |  |

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| **❑❑❑** | **Recommended for approval**  **Approval is recommended** subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan.  **Recommendation for approval is not granted**. Prescribed Fire Plan should be re-submitted for technical review subject to the completion of all requirements listed in the comments section, or on the Prescribed Fire Plan. |

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| Technical Reviewer |  | Qualification and Currency (Y/N) |  | Date |

## APPENDIX C - COMPLEXITY ANALYSIS

Please refer to Element 3: Complexity Analysis Summary in the Interagency Prescribed Fire Planning and Implementation Procedures Guide, PMS 484, and the procedures in the Prescribed Fire Complexity Analysis Rating System Guide, PMS 424 (<https://www.nwcg.gov/publications/424>), to fill out this appendix.

The Complexity Analysis Worksheet is a separate file that needs to be copied and pasted from Summary and Final Complexity Worksheet, PMS 424-1. On the completed worksheet; highlight the entire worksheet area to be copied, right click, click on ‘copy’. On this page, delete this text, right click, choose ‘picture’ as a paste option, and resize as necessary to fit to page. An alternate solution is to print the Summary and Final Complexity Worksheet, 424-1, and insert into the final plan.

## APPENDIX D - JOB HAZARD ANALYSIS / RISK ASSESSMENT

A job hazard analysis, risk assessment, or other agency-specific risk assessment is required for each prescribed fire. Refer to your specific agency guidance to fill out this appendix.

## APPENDIX E - FIRE BEHAVIOR MODELING DOCUMENTATION OR EMPIRICAL DOCUMENTATION

## Refer to Element 7: Prescription, in the Interagency Prescribed Fire Planning and Implementation Procedures Guide, PMS 484, to fill out this appendix.APPENDIX F - SMOKE MANAGEMENT PLAN AND

## SMOKE MODELING DOCUMENTATION

(Optional)

Refer to the NWCG Smoke Management Guide for Prescribed Fire, PMS 420-2, and Appendix A. Basic Smoke Management Practices in the Interagency Prescribed Fire Planning and Implementation Procedures Guide, PMS 484, to fill out this appendix.

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| APPENDIX G – WEATHER / FUELS / FIRE BEHAVIOR / SMOKE OBSERVATIONS | | | | | | | | | | |
| **Weather and Fuels** | | | | | | | | | | |
| **OBSERVATION TIME** (24 HR) | |  |  |  |  |  |  |  |  |  |
| **SLOPE** (%) | |  |  |  |  |  |  |  |  |  |
| **ASPECT** | |  |  |  |  |  |  |  |  |  |
| **ELEVATION** (FEET) | |  |  |  |  |  |  |  |  |  |
| **FUEL MODEL** (1-13) | |  |  |  |  |  |  |  |  |  |
| **SHADING** (<50% or >50%) | |  |  |  |  |  |  |  |  |  |
| **DRY BULB TEMPERATURE** (°F) | |  |  |  |  |  |  |  |  |  |
| **WET BULB TEMPERATURE** (°F) | |  |  |  |  |  |  |  |  |  |
| **RELATIVE HUMIDITY** (%) | |  |  |  |  |  |  |  |  |  |
| **EYE LEVEL WIND SPEED** (MPH) | |  |  |  |  |  |  |  |  |  |
| **WIND DIRECTION** | |  |  |  |  |  |  |  |  |  |
| **CLOUD COVER** (%) | |  |  |  |  |  |  |  |  |  |
| **1-HR FUEL MOISTURE** (%) | |  |  |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |
| **Fire Behavior** | | | | | | | | | | |
| **FIRE** (HEAD, FLANK, BACKING) | |  |  |  |  |  |  |  |  |  |
| **AVERAGE FLAME LENGTH** (FT) | |  |  |  |  |  |  |  |  |  |
| **MAX. FLAME LENGTH** (FT) | |  |  |  |  |  |  |  |  |  |
| **RATE OF SPREAD** (CH/HR) | |  |  |  |  |  |  |  |  |  |
| **TORCHING/CROWNING** (Y or N) | |  |  |  |  |  |  |  |  |  |
| **FIRE WHIRLS** (Y or N) | |  |  |  |  |  |  |  |  |  |
| **SPOTTING** (Y or N) | |  |  |  |  |  |  |  |  |  |
| **SMOKE DIRECTION** | |  |  |  |  |  |  |  |  |  |
| **SMOKE RISE** | |  |  |  |  |  |  |  |  |  |
|  | |  |  |  |  |  |  |  |  |  |
| **Notes** | | | | | | | | | | |
|  | | | | | | | | | | |
| **OBSERVER NAME:** |  | | | | | | **DATE** |  | | |

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| **APPENDIX G-1 - SMOKE OBSERVATIONS** | | | | | | | | | |
| FIRE NAME: |  | | | | DATE: |  | | OBSERVER: |  |
| FORECAST WINDS: |  | | | | CLEARING/ VENT INDEX: |  | | SMOKE SENSITIVE AREAS: |  |
| TIME | LOCATION | LAT | LONG | Elev (ft) | WIND SPEED & DIRECTION | SMOKE COLUMN OR INVERSION ELEVATION ABOVE GROUND LEVEL | SMOKE COLUMN DIRECTION | SMOKE COLOR | OTHER OBSERVATIONS |
|  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  | \*Observations include visibility, inversion status, impacts to smoke sensitive areas/resources, complaints, etc. |

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| APPENDIX H - PRESCRIBED FIRE POST BURN EVALUATION | | | | | | | | | | | |
| **Burn Unit** | | **Date(s) Burned** | | | | | **Acres Burned** | | | **Ignition Start Time** | |
|  | |  | | | | |  | | |  | |
| **Weather and Fuel Conditions** | | | | | | | | | | | |
|  | | **Time of Ignition** | | | | | **Low** | | | **High** | |
| **Temperature** | |  | | | | |  | | |  | |
| **Relative Humidity** | |  | | | | |  | | |  | |
| **1-hr Fuel Moisture** | |  | | | | |  | | |  | |
| **10-hr Fuel Moisture** | | **100-hr Fuel Moisture** | | | | | **1000-hr Fuel Moisture** | | | **Days Since Significant Precipitation** | |
|  | |  | | | | |  | | |  | |
| **Wind Direction (Average)** | | **Wind Speed (Average)** | | | | | **Percent of Fuel Consumed** | | | **Ignition Duration (min.)** | |
|  | |  | | | | |  | | |  | |
| **Accomplishment of Fuels Treatment Objectives** | | | | | | | | | | | |
| **Overall Objectives Achieved:** | | |  | **Yes** | |  | **No** | | | | |
| **Short Term Results (include changes in fuel profile and fire regime condition class)** | | | | | | | | | | | |
|  | | | | | | | | | | | |
| **Cost Evaluation** | | | | | | | | | | | |
| **Burn Plan Preparation** | **Site Preparation** | | | | **Burn Operation** | | | **Total Burn Costs** | | | **Cost/Acre** |
| $ | $ | | | | $ | | | $ | | | $ |
| **Narrative – Prescribed Fire Burn Boss Comments** | | | | | | | | | | | |
| **i.e. operations, safety, fire behavior, personnel & equipment performance, logistics, smoke management** | | | | | | | | | | | |
|  | | | | | | | | | | | |
| **Prescribed Fire Burn Boss** | |  | | | | | | | **Date** |  | |

**APPENDIX I - AIR OPERATIONS PLAN**