

2.1.3 GENERAL PLANNING REQUIREMENTS

Each prescribed fire must have a complete and approved formal Prescribed Fire Plan before it is funded and can be implemented. The Prescribed Fire Plans should ideally be prepared and developed by an interdisciplinary team in which at a minimum at least one member has successfully completed the FWS Prescribed Fire Planning and Implementation or the NWCG Prescribed Fire Burn Boss training course. The Prescribed Fire Plan must discuss all key issues and concerns identified during refuge strategic and operational planning. The formal Prescribed Fire Plan is made up of many operational elements. Each element addresses a specific aspect of the prescribed fire operation. Certain key elements are listed below. If they do not apply, they should be noted as "N/A", they should not be omitted or not addressed. In some cases, special prescription elements, variables, or other requirements unique to the region or refuge will require additional entries. A standard Prescribed Fire Plan format is found in the Fire Management Preparedness and Planning chapter. Each regional office will determine whether the standard Prescribed Fire Plan format or a customized plan format will be used.

The following are key issues that will be addressed in all Prescribed Fire Plans.

- Prescribed burn objectives and how they support the land use objectives for the area.
- Expected fire behavior.
- Buffer and safety zones.
- Fire perimeter length and acreage burned limit.
- Analysis of the cumulative effects of weather and drought on fire behavior. This should include a historical analysis of a drought index (i.e., Palmer, Keetch_Bryan, ERC, etc.).
- Potential risks to and impacts on visitors, users, and local communities, both on and off site.
- Considerations of environmental, economic, and social effects, both on and off site.
- Regional and national fire activity are within planned limits.
- The number of fires burning in the planning area at one time are within planned limits.
- Items to be checked during the burn day go-no-go determination must include:
 - Predicted weather, environment, and fire behavior are within prescribed limits.
 - Availability of implementation personnel, contingency forces, equipment, and supplies are within planned limits.
 - Implementation personnel are briefed.
 - Required notifications are made.

The following are key Prescribed Fire Plan elements which will be in all Prescribed Fire Plans or other supporting documents:

- Signature page: Provide spaces for signatures of those persons who prepared the plan, the prescribed fire burn boss, the reviewers and the final approval authority.
- Burn unit description: Describe the physical and biological features of the burn unit including the location, topography, fuels, vegetation, slopes, and aspect.
- Vicinity map: Include an overall map showing the position of the project in relation to the surrounding geographical area.
- Project map: Provide a detailed map showing the project boundary, its topographic features, fuel types and/or loadings, potential hazards, areas of special concern, type and size of control line locations and ignition patterns.
- Goals and objectives statements: State the goals and objectives for this specific burn. They must include the prescribed burn objectives which should be measurable treatment objectives (i.e., tons per acre of fuel removed, percentage of plants killed, percentage of mineral soil exposed, etc.) that support the land use objectives..
- Complexity: Identify the degree of difficulty in executing the planned fire.
- Burn organization: List the essential qualified personnel who will be utilized and the positions that they fill. Specify the number of crew personnel that are needed.
- Costs: Estimate the time and costs for the following categories: planning, pre-burn monitoring, preparation for the burn, including line construction; burning; holding; monitoring; mop up; and evaluation. Estimate the costs of equipment used for the burn, including tools, aircraft, supplies, and vehicles.
- Scheduling: State the general time period in which the burn will take place. Show any periods during this time when the burn cannot take place. Provide space to enter the start date, date declared out, and date the DI-1202 is submitted.
- Pre-burn considerations:
 - Preparations on site: Include line to be built, line standards, snags to be felled or protected, equipment to be pre-positioned, special features to be protected, warning signs to be placed, weather recording and monitoring needs, etc.
 - Preparations off site: Include equipment readiness, supplies to be purchased, signs to be made, personal protective equipment to be issued, etc.
- Fire prescription: Describe in detail the acceptable ranges of fire behavior and parameters of weather and fuel moisture content or other site variables that are used to define the prescription, acceptable smoke duration and patterns of dispersal, seasons when the burns can be done, and other specific parameters. The use of fire behavior and smoke management prediction aids (e.g., BEHAVE, RXWINDOW, nomograms, SASEM, is recommended).
- Firing/holding plan: Describe in detail the methods and procedures to be used

during the firing and how the lines are to be held. This should include the number and types of personnel, equipment, and assignments. Include day, night, and weekend shifts. What are acceptable holding actions on this fire? What constitutes an escape? (refer to "Holding Actions", section in this chapter).

- Contingency plan: Define what contingency actions constitute a significant departure from what was planned or expected and where conversion to a wildland fire is appropriate. Include procedures to be followed and actions to be taken if the fire exceeds the abilities of the holding crew to keep it within prescribed parameters and/or unit boundaries. Fuels both inside and outside (near and distant) the burn unit should be considered. Who is to declare the fire a wildland fire? Who is to be the incident commander after the fire is converted to a wildland fire? Define the number and type of contingency forces to be used as initial action. Who is to be notified of the conversion to a wildland fire? What role will the holding crew take? Should they remain on the burn or suppress the escape? Account for every person as either reassigned or released from the fire and identify who is to supervise those who are reassigned.
- Weather information: Specify the weather information required during all phases of the project and the procedures for acquiring it. How and when will spot weather and smoke dispersal forecasts be requested? How long after the burn will forecasts be required? How is feedback to the Weather Service to be accomplished?
- Protection of sensitive features: Give instructions for the protection of sensitive features within and adjacent to the burn. These include cultural resources, streams, threatened and endangered species, sensitive soils, buildings and improvements, etc. Obtain necessary archaeological and other types of clearances before the area is disturbed.
- Smoke management and air quality: Identify potential smoke sensitive areas and management strategies for avoidance, emission reductions, and/or dilution to minimize environmental impacts including impacts on human health and welfare. Identify what air quality compliance steps must be taken and what permits are required, who is to obtain them, and when they must do so.
- Pre-burn coordination and public involvement: Establish responsibilities for the notification of other agencies, the public, and local landowners, including the notifications and coordination required in the regional preparedness plan. List and identify public information contacts, including local area personnel and press releases. Identify the official local agency public information specialist.
- Pre-burn notification: Formulate a call-up list of individuals and agencies, when they are to be contacted, how they are to be contacted, and assign responsibilities for making specified contacts. Include addresses, phone numbers, radio call signs, and frequencies.
- Public and personnel safety: Describe safety and emergency procedures. Specify that all personnel who are within the active burn area will have the personal protective equipment required for fire management. Identify safety hazards on the burn, measures taken to reduce those hazards, and EMS personnel on the burn. Specify emergency medical procedures, evacuation

routes, and emergency facilities to be used.

- **Monitoring:** Include all monitoring, measurements, and frequency needed to determine if conditions for the burn are within prescription, both before it is started and while it is burning. Describe the location of all sampling plots and transects. Include the necessary measurements and observations to determine if the burn objectives were met.
- **Reports:** Provide for the documentation of the burn. Include a cost assessment and all required reports such as the DI-1202. Include a critique of the burn by the prescribed fire burn boss. Methods which worked or didn't work and the effectiveness of the prescription in achieving burn or smoke objectives should be evaluated, along with recommendations for future projects. Attach all observation and forecast forms, worksheets and data collected during the burn operation.
- **Rehabilitation:** Describe in detail any rehabilitation that is to be accomplished, who is to do it, and when it is to be completed. These may include waterbars, trash removal, flush cutting of stumps, scattering or burning of line construction debris and other appropriate treatments.
- **Briefing guide and NWCG format "Go/No-Go" checklist (Exhibit 2-1-1):** A short, concise list of the things to be covered during the crew briefing before the fire is started and at the beginning of each operational period after that. Include a summary of conditions that must be met before the burn can commence and continue. These may include, but not be limited to, the presence of all personnel needed to implement the contingency plan, the presence of all required equipment in specified locations, that the fire behavior and expected weather meet the prescription, and that the required notifications have been made.
- **Persons contacted:** Retain a list of persons contacted during the development of the burn plan. Include Fish and Wildlife Service personnel, other agency personnel, concessionaires, inholders, special interest groups, refuge neighbors, concerned public, etc. Where appropriate record the date of contact.