Checklist For Review of Prescribed Fire Plans

Refuge	Unit	Subunit	Acres	Burn Dates		Review Date	Valid Through	Reviewed by
				From	To			
SD-LAR	New Holland		440	Jan 1	Dec 31	Apr-2006	Apr-2010	[redacted]

INSTRUCTIONS: This checklist is to be completed by the reviewer. Check each item found to be satisfactory. If an element is not adequately addressed, recommendations should be added immediately below that item, indicating what is required to adequately address the element.

The Refuge Manager who approves the burn plan is responsible for ensuring that all recommendations are completed prior to implementation of the burn. This document should be permanently attached to and considered an integral component of the approved plan

Elements:

Yes 1. **Vicinity and unit maps clearly define the project.**

Required Maps:

- ☐ a. **A Vicinity Map included showing the position of the unit in relation to the surrounding geographical area including nearby communities, major roads, airports, pre-planned access routes to the unit, etc.**
  - Scales and North arrows are required on all maps; standard reference points (e.g., letters, numbers, drop points, grid lines, etc.) are highly recommended for most maps. Standard ICS symbols should be used.
- ☐ b. **Detailed unit maps which show:**
  - The project boundary, the unit's topographic features, fuels inside the burn unit, significant features (fences, power lines, areas to be protected, etc.), potential hazards, areas of special concern, and control line locations.
- ☐ c. **Contingency Planning Map(s) that include:**
  - Fuels and/or land use outside the burn unit. If it is impossible to determine the fuel types outside the burn unit due to things like crop rotations that will take place over the life-cycle of the burn plan, then a discussion of the potential contingency factors that must be considered and decisions to be made should be included in the body of the plan.
  - Areas outside the unit that may be affected by an escape, especially structures, private property, or communities, including access routes.
  - The location of any secondary containment lines or predetermined indirect attack locations. The significance of these locations and how they will be used should be explained in the body of the plan.
  - Hazards or other areas of special concern outside the unit.
  - Maximum Manageable Areas (if appropriate).
- ☐ d. **At least one ignition sequence map showing an ignition sequence for the predominant wind direction that is representative of the ignition sequences for other wind directions (consider wind directions to be N, NE, E, SE, S, SW, W, and NW).**
  - The ignition sequence should be listed on the same page as the ignition sequence map and may be general in nature to give the Burn Boss the latitude to adjust the ignition sequence based on their discretion on burn day. It is not necessary to describe the ignition sequence in detail in the body of the plan unless special considerations exist that need additional explanation.
  - The plan will clearly articulate that if the wind changes the sequence will be adjusted at the Burn Boss' discretion.
  - If the unit will require significantly different ignition sequences for different wind directions, for example, because the unit is an irregular shape or because smoke management considerations are different, a separate map(s) representative of each different ignition sequence should be included in order to analyze potential problems.
- ☐ e. **A smoke trajectory map which analyzes the effect on sensitive smoke receptors for the allowable surface and transport wind directions.**

Optional Maps:

- ☐ f. Escape routes and safety zones should be shown if they are of a fixed nature that will not change from year to year over the life of the plan.
- ☐ g. Specific water sources should be shown if they are of a fixed nature that will not change from year to year. Off-site water sources not visible on the unit map require an additional map showing the location of and route to the water source.

Yes 2. **Primary resource objectives for the unit, the objectives of the fire, and the acceptable range of results are appropriate.**

Required:

- ☐ **a. The goals and objectives are stated for this specific burn. This section must include the reason for the burn (fuel reduction, maintenance, endangered species habitat, etc.) and measurable objectives, such as percentage of plants killed, area burned, etc.**

Yes 3. **Fuel Model(s) accurately reflect the vegetative type(s) that are present.**

Required:

- ☐ **a. The burn unit and fuels inside and outside the unit are described and correlated to NFES or custom fuel models whenever possible (see #7 c. below).**

Yes 4. **Complexity Analysis completed.**

Required:

- ☐ **a. The NWCG Complexity rating form will be completed. Fuels and features inside and outside the unit are considered and the score entered in the body of the plan.**
  - ➢ Multiple complexity analyses may be used to depict different complexities in the same unit under different conditions, for example, differences depending on whether fuels in the unit are green or cured, or different land use condition of adjacent units. The plan must clearly state the significance of the changes and what must be done to compensate for them.
- ☐ **b. A justification of how the complexity scores were derived. This document will analyze the risk involved with conducting the burn and the consequences of failure.**

Yes 5. **Plan adequately addresses site preparation requirements.**

Required:

- ☐ **a. The line to be built, equipment to be used to prep the site or to be pre-positioned prior to ignition, features to be protected, warning signs to be placed, weather recording requirements, permits to be obtained, etc. must be included. All prep work tasks should be included in this section.**
- ☐ **b. Responsible individuals or functional groups and standards are identified for each task.**

Yes 6. **Weather information for all phases of the project and the means of obtaining it are listed.**

Required:

- ☐ **a. Provisions have been made to secure a spot weather forecast.**
  - ➢ Web sites, telephone numbers, and person(s) to be contacted, if available, are identified.
- ☐ **b. Who is responsible for obtaining it.**
- ☐ **c. When it will be obtained.**

Optional:

- ☐ d. Other weather-related considerations and source(s) of helpful weather information.
- ☐ e. Methods and procedures for obtaining smoke dispersal forecasts, if required, are also listed.

Yes 7. **Acceptable range of prescription values is reasonable and plan includes a prediction of expected fire behavior.**

Required:

- ❑ a. **The general time span in which the burn will take place (or when it cannot take place) have been indicated.**
- ❑ b. **Acceptable ranges of fire behavior and parameters of weather and fuel moisture content are indicated. Values are compatible with the objectives to be obtained and are reasonable and interdependent (moisture of extinction, 20' wind speed/midflame wind speed, etc.).**
- ❑ c. **The burn plan preparer must demonstrate an understanding of the prescription to the reviewer. A discussion about fire behavior including constraints, assumptions made, and explanations of how expected fire behavior will deviate from standard models must be included if the fire behavior will not be represented by BEHAVE models.**
- ❑ d. **Acceptable ranges of fire behavior takes into consideration the fire behavior in the fuels outside the burn unit under the worst case scenario, especially when setting the upper end of the prescription parameters.**
- ❑ e. **The plan has been developed with a preferred wind direction. All acceptable and unacceptable wind vectors are indicated.**

Optional:

- ❑ f. BEHAVE runs with bracketed values or RXWINDOWS run should usually be included but may not be necessary when they won't adequately predict fire behavior due to certain fuel conditions.

Yes 8. **Cumulative effects of weather and drought on fire behavior are considered.**

Required: A determination must be made whether the effects of cumulative weather on the burn unit and adjacent areas is or is not a factor in the decision to conduct the burn.

- ❑ a. **If drought is not a factor, the plan should explain why it is not.**
- ❑ b. **If drought is a consideration, the burn plan should address ALL the following (c thru f):**
- ❑ c. **What effects prolonged drought will have?**
- ❑ d. **What the thresholds are (how do you know you're in a drought situation?)**
  - ➢ Drought indicators such as the Energy Release Component (ERC), KBDI, or Palmer Drought Index may be used. Drought indicators do not have to be indices but may be as simple as inspecting the unit to see if adjacent fields have not greened up yet due to dry conditions. The indicator must be useable at the refuge.
- ❑ e. **How will it be determined that unusually dry conditions are present?**
  - ➢ The sources and methods for obtaining the information, including web sites, telephone numbers, and contacts are indicated, as well as who is responsible for obtaining the information.
- ❑ f. **What will be done if conditions are dry?**

Yes 9. **Prescribed Fire Organization adequately provides for anticipated needs.**

Required:

- ❑ a. **The positions that will be utilized and the minimum qualifications needed are listed. Specific personnel are listed only if they are essential to conducting the burn.**
- ❑ b. **The minimum number and types of crew personnel, equipment, and the supervisory structure that are needed are specified.**
  - ➢ If additional people or equipment may be used if available but are optional and not required, they should NOT be listed.
  - ➢ An Organization Chart is recommended.

Yes 10. **Smoke management issues and mitigation needs adequately addressed.**

Required:

- ❑ a. **Potential smoke sensitive areas are identified, management strategies to avoid them have been developed, and necessary conditions have been specified.**
  - ➢ A smoke trajectory map is required under #1 e. above.
- ❑ b. **Air quality compliance steps, which must be taken, permits required, and who is to obtain them and when are addressed.**

Traffic control measures must be thoroughly planned since smoke on roadways presents a high potential for mishaps. If traffic control measures are needed, the following items are required:

- ❑ c. **Personnel and equipment needs, where they will come from, and availability if the personnel will come from somewhere besides the on-site burn crew.**

- ❑ **d. Locations and assignments of traffic control personnel.**
  - ➢ Communications needs of traffic control personnel should be addressed in the communications plan.
- ❑ **e. Crew briefing (if traffic control personnel come from off-site, how will they be briefed?).**
- ❑ **f. Safety considerations for the public and traffic control personnel.**

Yes 11. **Pre-burn coordination and contacts are listed.**

Required:

- ❑ **a. If other agencies, the public, and local landowners should be contacted, the plan should specify when the contacts will be made and who is responsible for making the notifications. A list should be included in the burn plan with:**
  - ➢ The name of the person or agency
  - ➢ Telephone numbers or other means of contact
  - ➢ Time/date notified
  - ➢ A spot to enter the name of the person who made the contact
  - ➢ A place to document unsuccessful attempts

Yes 12. **Crew Briefing Outline attached.**

Required:

- ❑ **a. A short, concise list of things to be covered during the crew briefing before the fire is started is included. The standard Region 6 Prescribed Fire Briefing Outline as an attachment is recommended.**

Yes 13. **Ignition plan adequately addresses methods and sequence. Ignition sequencing map attached. A test fire is planned.**

Required:

- ❑ **a. The plan describes in detail the methods and procedures to be used during the firing and how the fire is to be held.**
  - ➢ This section should include the number and types of personnel, equipment, and assignments.
- ❑ **b. Provision is made for an adequate test fire in representative fuel type(s).**

Yes 14. **Safety issues, escape routes, and safety zones are identified.**

Required:

- ❑ **a. Does the plan adequately describe safety and emergency procedures?**
- ❑ **b. Does the plan identify and adequately address safety hazards to fire personnel and the public, methods to be taken to reduce the hazards, escape routes, and safety zones?**
  - ➢ Designated escape routes and safety zones should be identified on the project map when of a permanent nature.
  - ➢ Safety Zones should meet established standards.

Yes 15. **Go/No-Go Checklist and Project Leader's Go/No-Go Pre-Ignition Checklist attached.**

Required:

- ❑ **a. Use established Go-No-Go checklists.**

Yes 16. **Critical control problems identified and mitigated.**

Required:

- ❑ **a. Should be explained in the body of the plan.**

Yes 17. **Water re-supply needs are covered.**

Required:

- ❑ **a. The need (or lack of need) for water supply should be addressed in the plan. The use of tenders and portable tanks and pumps should be addressed, as appropriate.**

- Work needed to ensure water sources before the burn should be listed in the "Prep Work" section of the plan.

Optional:

❑ b. Sources been identified on the project map, if possible. If off site or out of the area, the locations should be clearly described and/or a map included (see #1 g. above).

- Specific information concerning dump stations (special fittings, payment required, etc.) is included, if necessary.

Yes 18. **An adequate contingency plan in an event of an escaped fire is included.**

The prescribed fire plan should contain enough detail to give the Burn Boss and reviewer a knowledge of the consequences and response that will take place in the event of an escape from that particular unit. The details found in the Refuge Dispatch Plan (phone numbers, notification procedures, etc.) do not have to be included in the burn plan; however, it should be referenced. The Dispatch Plan should be available and up to date for the reviewer to access if there are questions directly related to it.

Required:

❑ **a. The acceptable prescription and contingency plan considers predicted fire behavior in fuels within a reasonable proximity outside of the burn unit should an escape occur.**

❑ **b. Procedures to be followed and actions to be taken if the fire exceeds the abilities of the holding crew to keep it within prescribed boundaries or Maximum Manageable Area (if any) are fully addressed.**

❑ c. **What constitutes an escape is defined.**

- What contingency actions constitute a significant departure from what was planned or expected, such as the trigger points that will be used to reclassify the burn as a wildland fire?

❑ **d. The person responsible for making the decision is clearly defined.**

❑ **e. What notifications need to occur in the event of an escape?**

❑ **f. The person who will serve as incident commander is identified.**

❑ **g. Forces which are to take initial attack action are identified.**

❑ **h. The number and type of contingency forces needed are identified.**

- Limits to their availability (e.g., constraints due to Regional and National fire activity, hours of the day [VFD's], etc.).
- How to contact them when needed.

❑ i. **The plan must include the means of verifying their availability on burn day and have a place to document that the contacts were made.**

❑ **j. Strategies and tactics to be used must be identified.**

- What are the considerations for structure protection outside the burn unit?
- How will indirect attack and secondary containment lines be used?

❑ **k. Indicate radio frequency(ies) and other communication methods to be used for suppression efforts.**

Optional Items:

❑ l. CONTAIN runs may be necessary in areas with high escape potential and consequences to assist in determining the number and type of contingency forces needed, what types and how many resources must be ordered, and what timeframes they will need to be ordered in should an escape occur. If used, a justification for the number of contingency forces and strategy based on the limitations of the model should be done.

Yes 19. **Mop up and rehabilitation standards are established.**

Required:

❑ **a. Mop up and rehab standards should be expressed in quantifiable terms (e.g., when all smokes within 20 feet of the line are extinguished, water bars placed in highly erodible areas, etc.).**

- Any follow up checks that will be needed are specified

❑ **b. The criteria to declare the burn out and by whom**

Optional:

❑ c. A mop up organization chart with numbers, types, and assignments of resources should be included, if warranted.

❑ d. Depending on the fuels involved, extended forecasts for the post-ignition period may be needed.

Yes 20. **Medical and Communications Plans completed and attached?**

Required:

❑ **a. Region 6 Communications and Medical Plans with specific details and procedures.**

Yes 21. **Plan adequately addresses Values At Risk / Sensitive Areas.**

Required:

- ❑ a. **Plan adequately addresses T&E species concerns both within burn unit and adjacent.**
- ❑ b. **Plan adequately addresses Archeological, Cultural, or Historical issues both within burn unit and adjacent (e.g., appropriate documents have been or will be submitted for archeological/cultural clearance prior to implementing burn plan.)**

REMARKS:

Line officers and technical review specialist are tasked with ensuring quality reviews are completed before any burn can be implemented. Each burn plan must be re-certified and approved by the manager or line officer each year a prescribed burn is scheduled to be completed until the burn plan expires. This will be done to ensure the conditions described in the unit are accurate and have not changed over the course of a year.

One other change to the prescribed burn plan implementation process is we will no longer require the Delegation of Authority section to be completed as long as the Burn Boss is a U.S. Fish and Wildlife Service employee.

If the Burn Boss is **NOT** a U.S. Fish and Wildlife Service employee this section must be completed prior to implementing the burn.

This review document and the original review document completed by the zone FMO should be given full consideration by the line officer and burn boss prior to burn implementation. These documents should be permanently attached and considered an integral component of the approved plan. If you have questions or comments concerning this review process, please contact me at [redacted].

Once reviewed and approved by the Project Leader or Refuge Manager, this plan will be valid until _April 2010__ provided a re-review is completed by the line officer or manager each year a prescribed burn is scheduled to be completed until the plan expires.

Recommended for Approval: [redacted] (RXB2) Date April 2006

Not Recommended for Approval: _____ Date

Zone Fire Management Officer