

**PENNSYLVANIA**  
**PRESCRIBED FIRE PLAN**

**Prescribed Fire Name:** \_\_\_\_\_

**Agency/Landowner:** \_\_\_\_\_

**Prepared by:**

*Name:*

*Title:*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Technical Reviewer:**

*Name:*

*Qualification:*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Burn Day Burn Boss:**

*Name:*

*Title:*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Administrator:**

*Name:*

*Title:*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Burn Day Contact Information:**

**Name:**

**Phone:**

Plan expires 3 years from the date of the latest approval signature. (Indicate if this plan will be used for multiple treatments in the 3-year time frame.)

**LOCATION:**

Agency /Organization		Ownership	
County		Township	
Acres		Landscape	
Lat/Long		Forest District	

**1. PRESCRIBED FIRE AREA DESCRIPTION:**

**A). Burn Unit Narrative Description (include description of burn unit boundaries):**

**B). Burn Unit Description Table :**

<b>Vegetation Types</b>	<b>Fire Behavior Fuel Model</b>	<b>% of Unit Area</b>	<b>% Slope</b>	<b>Aspect</b>

**C). MAPS (include as attachments):**

Location map (public use or state highway):

Burn unit map (topo and/or photo map):

Timber type map: (optional)

Aerial photograph:

Soils Map: (optional)

Smoke Screening Map:

Other:

### 3. PRESCRIBED FIRE JUSTIFICATION:

#### General Goals:

	Fuel Reduction		Site Preparation		Wildlife Habitat
	Competing Vegetation Control		Invasive Species Control		Other
	Insect & Disease				

#### Prescribed Fire Management Goal(s):

#### Specific Measurable Prescribed Fire Management Objectives:

#### Other Alternatives Considered:

**4. FUEL AND WEATHER PRESCRIPTION (give ranges):**

Parameters:	Acceptable (Required)	
	Min.	Max.
*Air Temperature (°F)		
*Relative Humidity (%)		
Days Since Last Rain		
20 ft wind speed (mph)		
*Wind Direction(s)		
*Eye-level Windspeed (mph)		
*1-Hour Fuel Moisture (%)		
10-Hour Fuel Moisture (%)		
100-Hour Fuel Moisture (%)		
1000-Hour Fuel Moisture (%)		
Atmospheric Mixing Height (ft)		
Other (e.g. KBDI, Live/dead ratio):		
Live Fuel Moisture (%)		

\* Required

**5. FIRE BEHAVIOR PRESCRIPTION**

(give ranges, add parameters for each fuel model as required):

Fuel Model	Parameters:	Acceptable (Required)	
		Min.	Max.
	*Rate of Spread		
	*Flame Length		
	*Probability of Ignition		
	*Rate of Spread		
	*Flame Length		
	*Probability of Ignition		
	*Rate of Spread		
	*Flame Length		
	*Probability of Ignition		

\*Required

**6. FIRE BEHAVIOR NARRATIVE (Describe *desired* fire behavior. How will you manipulate fire behavior to meet management and control objectives?):**

**7. SCHEDULING (Describe timing, time constraints)**

**8. ICS ORGANIZATIONAL CHART :**

**9. ASSIGNED RESOURCES:**

**10. PRE-BURN CONSIDERATIONS:**

**11. TEST FIRE:**

**A). Planned Location:**

**B). Test Fire Documentation:**

**1). Weather Conditions:**

**2). Test Fire Results:**

**12. FIRING PLAN:**

**13. HOLDING PLAN:**

**14. MONITORING:**

**15. COMMUNICATION PLAN:**

**16. CONTINGENCY PLAN:**

**A). Management action points:**

**B). Actions Needed:**

**C). Resources and Reporting Times:**

**D). Wildfire Conversion:**

**10. SOURCES OF EMERGENCY ASSISTANCE (location & phone #):**

Fire:		
Law Enforcement:		
Medical:		
District Forest Fire Warden:		

**18. SAFETY & MEDICAL PLAN:**

**19. SMOKE MANAGEMENT PLAN**

**20. NOTIFICATIONS (including, but not limited to):**

Department of Environmental Protection:

Airports:

District Forest Fire Warden:

Neighboring Landowners: (If within a certain distance)

County Communications Center:

Volunteer Fire Dept. having jurisdiction:

**21. EVALUATION:**

**22. GO/NO-GO CHECKLIST:**

**23. COMPLETED COMPLEXITY ANALYSIS AND JUSTIFICATION:**

**24. LIST OF ATTACHMENTS:**

**Summary and Evaluation Immediately After Burn:**

Date burned		Time frame	
Rain		Days since	Inches of rain
Acres burned		Est. Cost	
Burn Boss			
Containment Problems			
Smoke Problems			
Est. Understory Consumed (%)			
Excessive Scorch			
Remarks			

## NWCG PRESCRIBED FIRE GO/NO-GO CHECKLIST

Yes	No	Questions
		Are ALL fire prescription elements met?
		Are ALL smoke management specifications met?
		Has ALL required current and projected fire weather forecast been obtained and are they favorable?
		Are ALL planned operations personnel and equipment on-site, available, and operational?
		Has the availability of ALL contingency resources been checked, and are they available?
		Have ALL personnel been briefed on the project objectives, their assignment, safety hazards, escape routes, and safety zones?
		Have all the pre-burn considerations identified in the prescribed fire plan been completed or addressed?
		Have ALL the required notifications been made?
		Are ALL permits and clearances obtained?
		In your opinion, can the burn be carried out according to the prescribed fire plan and will it meet the planed objective?

If all the questions were answered “YES” proceed with the test fire. Document the current conditions, locations, and results.

Burn Boss: \_\_\_\_\_

Date: \_\_\_\_\_



# PENNSYLVANIA PRESCRIBED FIRE COMPLEXITY RATING WORKSHEET

<b>Site:</b>	<b>Unit:</b>	<b>Agency:</b>	<b>Date:</b>
<b>Complexity Score (circle)</b>			
<i>Low (44-80 pts)</i>	<i>Moderate (81-150 pts)</i>	<i>High (151-220 pts)</i>	

Weighting Factor x Complexity Value = Total points. Sum of Total points = Complexity Score. Assign each complexity value as a 1, 2, 3, 4, or 5.

Complexity Element	Weighting Factor	Complexity Value (1-5)	Total Points	<u>Rationale and/or Mitigation Procedures</u> (Use for clarification of rationale and/or Complexity Value.)
1. Safety	5			
2. Difficulty of Containment	5			
3. Fuels and Fire Behavior	5			
4. Wildland / Urban Interface	5			
5. Objectives	4			
Sub Total (Page 1)				

Complexity Element	Weighting Factor	Complexity Value (1-5)	Total Points	<u>Rationale and/or Mitigation Procedures</u>	
6. Management Organization	4				
7. Contingency Planning and Resources	4				
8. Natural, Cultural, Social Values	3				
9. Air Quality Values	3				
10. Logistics	3				
11. Tactical Operations	2				
12. Cooperator Coordination	1				
Sub Total		Page 2		Additional Comments:	
		Page 1			
Complexity Score					Rated by:

Complexity Element	Complexity Value Evaluation Examples (Not all items necessarily need to be present)		
	1	3	5
<b>1. Safety</b>  <b>Weighting Factor - 5</b>	<ul style="list-style-type: none"> <li>All safety issues have been identified and mitigated.</li> </ul>	<ul style="list-style-type: none"> <li>A number of significant issues have been identified and some of them are difficult to address through mitigation.</li> </ul>	<ul style="list-style-type: none"> <li>Complex safety issues exist.</li> </ul>
<b>2. Difficulty of Containment</b>  <b>Weighting Factor - 5</b>	<ul style="list-style-type: none"> <li>Low threat of escape past unit boundaries.</li> <li>Probability of Ignition&lt;50%.</li> <li>Boundaries naturally defensible or firebreaks easily installed and defended.</li> <li>Secondary control lines strong and easily accessed by vehicles and/or crew.</li> </ul>	<ul style="list-style-type: none"> <li>Moderate threat of escape from unit boundaries.</li> <li>50&lt;Probability of Ignition&lt;70%</li> <li>Moderate risk of slopover or spot fires.</li> <li>Fuel type produces numerous firebrands.</li> <li>Secondary control lines difficult to access or not secure.</li> </ul>	<ul style="list-style-type: none"> <li>High threat of escape from unit boundaries.</li> <li>Probability of Ignition&gt;70%.</li> <li>High risk of slopover or spot fires.</li> <li>Secondary control lines non-existent or inadequate without significant resource commitment.</li> </ul>
<b>3. Fuels and Fire Behavior</b>  <b>Weighting Factor - 5</b>	<ul style="list-style-type: none"> <li>Low variability in slope &amp; aspect.</li> <li>Weather uniform and predictable.</li> <li>Surface fuels (grass and/or needles) only.</li> <li>No drought present or predicted within burn period.</li> <li>Duff or organic soils will not ignite.</li> </ul>	<ul style="list-style-type: none"> <li>Moderate variability in slope &amp; aspect.</li> <li>Weather variable but predictable.</li> <li>Ladder fuels present and torching expected.</li> <li>Fuel types/loads variable.</li> <li>Dense, tall shrub or mid-seral forest communities.</li> <li>Drought index indicates normal to moderate drought conditions; present expected within burn period.</li> <li>Upper level of duff or organic soil will burn.</li> </ul>	<ul style="list-style-type: none"> <li>High variability in slope &amp; aspect.</li> <li>Weather variable and difficult to predict.</li> <li>Extreme fire behavior and/or stand replacement fire.</li> <li>Fuel types/loads highly variable.</li> <li>Altered fire regime, hazardous fuel /stand density conditions.</li> <li>Drought index indicates severe drought conditions; present or expected within burn period.</li> <li>Significant portions duff or organic soils will burn.</li> </ul>
<b>4. Wildland / Urban Interface</b>  <b>Weighting Factor - 5</b>	<ul style="list-style-type: none"> <li>No risk to people or property within or adjacent to fire, or values to be protected are easily mitigated.</li> <li>Potential damage from escape low.</li> </ul>	<ul style="list-style-type: none"> <li>Several values to be protected.</li> <li>Mitigation through planning and/or preparations is complex.</li> <li>May require some commitment of specialized resources.</li> <li>Potential damage from escape moderate.</li> </ul>	<ul style="list-style-type: none"> <li>Numerous values and/or high values to be protected.</li> <li>Severe damage likely without significant commitment of specialized resources with appropriate skill levels.</li> <li>Potential damage from escape high.</li> </ul>

Complexity Element	Complexity Value Evaluation Examples (Not all items necessarily need to be present)		
	1	3	5
<b>5. Objectives</b>  <b>Weighting Factor - 4</b>	<ul style="list-style-type: none"> <li>• Prescriptions broad.</li> <li>• Easily achieved objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction of both live and dead fuels.</li> <li>• Moderate to substantial changes in two or more strata of vegetation.</li> <li>• Objectives judged to be moderately hard to achieve.</li> <li>• Objectives may require moderately intense fire behavior.</li> </ul>	<ul style="list-style-type: none"> <li>• Precise treatment of fuels and multiple ecological objectives.</li> <li>• Major change in the structure of 2 or more vegetative strata.</li> <li>• Conflicts between objectives and constraints.</li> <li>• Requires a high intensity fire or a combination of fire intensities that are difficult to achieve.</li> </ul>
<b>6. Management Organization</b>  <b>Weighting Factor - 4</b>	<ul style="list-style-type: none"> <li>• Span of control held to 2 - 3.</li> <li>• 6 - 12 person crew and 1 - 2 engines.</li> </ul>	<ul style="list-style-type: none"> <li>• Span of control held to 4 - 5.</li> <li>• Multiple resources required (engines, dozers, terra torch, etc.).</li> <li>• 8 - 20 person crew and 1 - 3 engines.</li> </ul>	<ul style="list-style-type: none"> <li>• Span of control greater than 5 - 7.</li> <li>• Multiple branch, divisions or groups.</li> <li>• Specialized resources needed to accomplish objectives.</li> <li>• Organized management team required (Fire Use or Incident Management).</li> </ul>
<b>7. Contingency Planning and Resources</b>  <b>Weighting Factor - 4</b>	<ul style="list-style-type: none"> <li>• Adequate contingency resources on site.</li> </ul>	<ul style="list-style-type: none"> <li>• Contingency resources limited or have more than a 15 - 30 minutes response time.</li> </ul>	<ul style="list-style-type: none"> <li>• Contingency resources limited or have more than a 30+ minutes response time.</li> </ul>
<b>8. Natural, Cultural, and Social Values</b>  <b>Weighting Factor - 3</b>	<ul style="list-style-type: none"> <li>• No risk to natural, cultural, and/or social resources within or adjacent to fire, or mitigation through planning and preparations is adequate.</li> </ul>	<ul style="list-style-type: none"> <li>• Several values to be protected.</li> <li>• Mitigation through planning and/or preparations is complex.</li> <li>• May require some commitment of specialized resources.</li> </ul>	<ul style="list-style-type: none"> <li>• Numerous values and/or high values to be protected.</li> <li>• Severe damage likely without significant commitment of specialized resources with appropriate skill levels.</li> </ul>
<b>9. Air Quality Values</b>  <b>Weighting Factor - 3</b>	<ul style="list-style-type: none"> <li>• Few smoke sensitive areas near fire.</li> <li>• Smoke produced for 1 or fewer burning periods.</li> <li>• Air quality agencies generally require only initial notification and/or permitting.</li> <li>• No potential for scheduling conflicts with cooperators.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple smoke sensitive areas, but smoke impact mitigated in plan.</li> <li>• Smoke produced for 2-3 burning periods.</li> <li>• Infrequent consultation with air quality agencies is needed.</li> <li>• Low potential for scheduling conflicts with cooperators.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple smoke sensitive areas with complex mitigation actions required.</li> <li>• Health or visibility complaints likely.</li> <li>• Smoke produced for greater than 3 burning periods.</li> <li>• Smoke sensitive Class I air-sheds.</li> <li>• Frequent consultation with air quality agencies is needed.</li> <li>• High potential for scheduling conflicts with cooperators.</li> </ul>

Complexity Element	Complexity Value Evaluation Examples (Not all items necessarily need to be present)		
	1	3	5
<b>10. Logistics</b>  <b>Weighting Factor - 3</b>	<ul style="list-style-type: none"> <li>• Easy access.</li> <li>• Duration of fire is 1 day (holding or monitoring).</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult access.</li> <li>• Duration of fire support between 2 and 3 days.</li> <li>• Logistical position assigned.</li> <li>• Anticipated difficulty in obtaining resources.</li> </ul>	<ul style="list-style-type: none"> <li>• No vehicle access.</li> <li>• Duration of support is greater than 3 days.</li> <li>• Multiple logistical positions assigned.</li> <li>• High difficulty in obtaining resources.</li> </ul>
<b>11. Tactical Operations</b>  <b>Weighting Factor - 2</b>	<ul style="list-style-type: none"> <li>• Simple ignition patterns with only one igniter inside the unit.</li> <li>• Ignition complete within one burning period.</li> <li>• Single ignition method used.</li> <li>• Resources required for 1 day.</li> <li>• Holding requirements minimal.</li> </ul>	<ul style="list-style-type: none"> <li>• Multiple firing methods and/or sequences with two igniters inside the unit at once.</li> <li>• Use of specialized ignition methods (i.e. terra-torch or Premo-Mark III).</li> <li>• Ignition continues for two burning periods.</li> <li>• Resources required for 2 to 3 days.</li> <li>• Holding actions to direct or delay fire spread.</li> </ul>	<ul style="list-style-type: none"> <li>• Complex firing patterns highly dependent upon local conditions.</li> <li>• Simultaneous use of multiple firing methods and/or sequences, greater than 2 igniters inside unit.</li> <li>• Simultaneous ground and aerial ignition.</li> <li>• Use of heli-torch.</li> <li>• Resources required for over 3 days.</li> <li>• Multiple mitigation actions at variable temporal and spatial points identified.</li> <li>• Aerial support for mitigation actions desirable or necessary.</li> </ul>
<b>12. Cooperator Coordination</b>  <b>Weighting Factor - 1</b>	<ul style="list-style-type: none"> <li>• Cooperators not involved in operations.</li> <li>• No concerns.</li> </ul>	<ul style="list-style-type: none"> <li>• Simple joint-jurisdiction fires.</li> <li>• Some competition for resources.</li> <li>• Some concerns.</li> </ul>	<ul style="list-style-type: none"> <li>• Complex multi-jurisdictional fires.</li> <li>• High competition for resources.</li> <li>• High concerns.</li> </ul>

