

(%)	I	.0	2.0	4.0	6.0	8.0	10.0
5.0	I	21.	58.	168.	344.	587.	675.
6.0	I	20.	55.	159.	325.	555.	614.
7.0	I	19.	51.	149.	307.	523.	553.
8.0	I	17.	47.	137.	281.	457.	457.
9.0	I	15.	41.	118.	242.	318.	318.
10.0	I	11.	31.	90.	158.	158.	158.

CONTAIN-LINKED-TO-DIRECT-AND-SIZE

1--RUN OPTION ----- 1.=COMPUTE LINE BUILDING RATE
 2--MODE OF ATTACK ----- 2.=REAR
 3--RATE OF SPREAD, CH/H --- OUTPUT FROM DIRECT. RANGE= 3. TO 297.
 4--INITIAL FIRE SIZE, AC -- OUTPUT FROM SIZE. RANGE= 1. TO 2319.
 5--LENGTH-TO-WIDTH RATIO -- OUTPUT FROM SIZE. RANGE= 1.1 TO 3.2
 6--BURNED AREA TARGET, AC - 10.0

=====

TOTAL LENGTH OF LINE, CHAINS (V4.4)

=====

1-HR	I	MIDFLAME WIND, MI/H					
MOIS	I	.0	2.0	4.0	6.0	8.0	10.0
(%)	I	-----					
5.0	I	36.	-1.	-1.*	-1.*	-1.*	-1.#
6.0	I	36.	-1.	-1.*	-1.*	-1.*	-1.*
7.0	I	36.	-1.	-1.	-1.*	-1.*	-1.*
8.0	I	37.	-1.	-1.	-1.*	-1.*	-1.*
9.0	I	37.	-1.	-1.	-1.*	-1.*	-1.*
10.0	I	38.	37.	-1.	-1.	-1.	-1.

-1 = INITIAL AREA IS EITHER LARGER THAN OR NEARLY
 EQUAL TO THE BURNED AREA TARGET.

* = FIRE IS TOO INTENSE FOR DIRECT ATTACK BY
 HAND CREWS.
 EQUIPMENT SUCH AS DOZERS, PUMPERS, PLOWS,
 AND RETARDANT AIRCRAFT CAN BE EFFECTIVE.

= CONTROL EFFORTS AT THE HEAD OF THE FIRE
WILL PROBABLY BE INEFFECTIVE.

=====

TOTAL CONTAINMENT TIME, HOURS (V4.4)

=====

1-HR MOIS	I	MIDFLAME WIND, MI/H					
		.0	2.0	4.0	6.0	8.0	10.0
(%)	I	-----					
	I						
5.0	I	1.3	-1.0	-1.0*	-1.0*	-1.0*	-1.0#
	I						
6.0	I	1.5	-1.0	-1.0*	-1.0*	-1.0*	-1.0*
	I						
7.0	I	1.7	-1.0	-1.0	-1.0*	-1.0*	-1.0*
	I						
8.0	I	2.1	-1.0	-1.0	-1.0*	-1.0*	-1.0*
	I						
9.0	I	2.8	-1.0	-1.0	-1.0*	-1.0*	-1.0*
	I						
10.0	I	4.4	.3	-1.0	-1.0	-1.0	-1.0
	I						

-1 = INITIAL AREA IS EITHER LARGER THAN OR NEARLY
EQUAL TO THE BURNED AREA TARGET.

* = FIRE IS TOO INTENSE FOR DIRECT ATTACK BY
HAND CREWS.
EQUIPMENT SUCH AS DOZERS, PUMPER, PLOWS,
AND RETARDANT AIRCRAFT CAN BE EFFECTIVE.

= CONTROL EFFORTS AT THE HEAD OF THE FIRE
WILL PROBABLY BE INEFFECTIVE.

=====

TOTAL LINE BUILDING RATE, CH/H (V4.4)

=====

1-HR MOIS	I	MIDFLAME WIND, MI/H					
		.0	2.0	4.0	6.0	8.0	10.0
(%)	I	-----					
	I						
5.0	I	28.	-1.	-1.*	-1.*	-1.*	-1.#
	I						
6.0	I	24.	-1.	-1.*	-1.*	-1.*	-1.*
	I						
7.0	I	21.	-1.	-1.	-1.*	-1.*	-1.*
	I						
8.0	I	18.	-1.	-1.	-1.*	-1.*	-1.*
	I						
9.0	I	13.	-1.	-1.	-1.*	-1.*	-1.*
	I						
10.0	I	9.	138.	-1.	-1.	-1.	-1.
	I						

APPENDIX #5
AGENCY ADMINISTRATOR
GO/NO-GO PRE-IGNITION APPROVAL

Prescribed Fire Name: _____

Date: _____

A) Instructions

The Agency Administrator's Go/No-Go Pre-Ignition Approval is the first of two GO/NO-GO decisions that must be completed before a prescribed fire can be implemented. The Agency Administrator's Go/No-Go Pre-Ignition Approval is the final management approval prior to execution of the prescribed fire and evaluates whether compliance requirements, prescribed fire plan elements, and internal and external notifications have been completed. The Agency Administrator's Go/No-Go Pre-Ignition Approval is valid for 30 days. If ignition of the prescribed fire is not initiated prior to expiration date determined by the Agency Administrator, a new approval will be required.

B) Key Elements

1. Is the prescribed fire plan up to date?

Hints: changes, amendments, seasonality.

2. Have all compliance requirements been completed?

Hints: cultural, threatened and endangered species, smoke management.

3. Is risk management in place and the residual risk acceptable?

Hints: Prescribed Fire Mitigation Table and Prescribed Fire Complexity Rating Guide completed with rationale and mitigations identified.

4. Will all elements of the prescribed fire plan be met?

Hint: preparation work, mitigation, weather, organization, prescription.

5. Have all internal and external notifications and media releases been completed?

6. Are key park staff fully briefed, and understand the implementation of the prescribed fire?

7. Other?

Recommended by: _____

FMO/Burn Boss

Date _____

Approved by: _____

Park Superintendent

Date _____

Approval expires: _____ (May not be more than 30 days after approved date.)

Date

APPENDIX #6
Prescribed Fire Operations
GO/NO-GO Checklist

Prescribed Fire Name:

Date:

	YES	NO
- Has Agency Administrator GO/NO-GO Pre-Ignition Approval been approved?	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Are current and forecasted weather conditions favorable for execution of the prescribed fire? (hints: spot weather, dialogue with fire weather forecaster, climatological analysis complete)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Have all key personnel listed on the Incident Action Plan (IAP) been briefed with an opportunity to give feedback? (hints: safety, objectives, assignments)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Has all pre-burn preparedness work been completed? (hints: fuels and weather observations, signs, closures, smoke management, unit preparation)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Are all equipment and supplies required in the prescribed fire plan in place and functional? (hints: pumps, radios, ignition devices, hose lays, vehicles, aviation, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Are all holding resources described in the IAP committed and can be on-scene within specified time frames?	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- Are all personnel certified for their assigned positions? (hints: Check Red Cards)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
- There are no extenuating circumstances that preclude successful completion of this project? (hints: regional & national preparedness, unusual circumstances, unusual drought, outstanding issues, other fires, recent fire escapes, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Narrative/Comments:		
IF ALL BOXES HAVE BEEN CHECKED "YES" YOU MAY PROCEED WITH THE TEST FIRE.		
TEST FIRE DOCUMENTATION AND RESULTS:		

	YES	NO
- Observed Fire Behavior within Prescription?		
Narrative/Comments:		
- Test fire was successful?		
Narrative/Comments:		
- Are all prescription parameters in the prescribed fire plan favorable for implementing the project? (hints: each plan element, pre-burn, smoke management, cooperater coordination)		
Narrative/Comments:		
IF LAST 3 BOXES ARE ALL "YES", YOU MAY PROCEED WITH PRESCRIBED FIRE.		

Signatures

<u>RX BURN BOSS:</u>	<u>IGNITION SPECIALIST:</u>
<u>HOLDING OPERATIONS:</u>	<u>DATE:</u>

	<p>C. Hauling flammable substances.</p> <p>D. Transporting sharp tools.</p>	<p>backing.</p> <p>B. Check loads for security before departing – use tie downs.</p> <p>C. Use appropriate containers for hauling drip torch fuels and gasoline. Secure containers on vehicle.</p> <p>D. Use guards and secure tools in engine compartments or on vehicles.</p>
--	---	---

JOB HAZARD ANALYSIS

<p>United States Department of Interior NATIONAL PARK SERVICE</p>	<p>1. WORK PROJECT/ACTIVITY Prescribed Fire</p>	<p>2. LOCATION Wilson’s Creek National Battlefield</p>	<p>3. UNIT All Prescribed Fire</p>
<p>JOB HAZARD ANALYSIS (JHA)</p>	<p>4. NAME OF ANALYST B. Bloodworth</p>	<p>5. JOB TITLE Ozark FMO</p>	<p>6. DATE PREPARED 2-13-04</p>
<p>7. TASKS/PROCEDURES</p>	<p>8. HAZARDS</p>	<p>9. ABATEMENT ACTIONS ENGINEERING CONTROLS – SUBSTITUTION - ADMINISTRATIVE CONTROLS - PPE</p>	
<p>2. Motor Vehicle Operation (Cont.)</p>	<p>E. Loading vehicles.</p> <p>F. Trailer use.</p>	<p>E. Use of proper lifting techniques.</p> <p>F. Use safe loading and operation procedures. Refer to Job Hazard Analysis on trailer use. Use spotter when backing.</p>	
<p>3. ATV Operation</p>	<p>G. Smoke on Roadways</p> <p>A. Operation accidents</p>	<p>G. Use smoke ahead signs and smoke monitors.</p> <p>A. Proper ATV procedures. Refer to Job Hazard Analysis on ATV operations for more detail. Use qualified atv operators and wear DOT approved helmets. Only one rider per atv.</p>	
<p>4. Holding Operations</p>	<p>A. Proximity to intense heat and erratic fire behavior.</p> <p>B. Fatigue</p>	<p>A. Use Personal Protective Equipment (PPE), maintain close supervision. Thorough briefing on expected fire behavior. Use appropriate tactics to insure personnel are not subjected to unnecessary heat.</p> <p>B. Rotate personnel on different tasks. Limit smoke exposure. Take adequate</p>	

5. Mop-up Operations	<p>C. Excessive Smoke Exposure</p> <p>D. ATV Operations</p> <p>E. Poor visibility due to smoke.</p> <p>A. Poor footing</p> <p>B. Falling snags</p>	<p>breaks. Drink plenty of water.</p> <p>C. Rotate personnel so that one group is not always in the smoke.</p> <p>D. Stay alert and watch for ATV traffic on fireline</p> <p>E. Stay alert. Watch for tripping and overhead hazards, sudden drop-offs, ATV traffic.</p> <p>A. Be constantly aware; identify hazard areas; slow down.</p> <p>B. Be alert, post lookouts when necessary. Flag off dangerous areas. Watch for strong winds. Use qualified fallers only.</p>
----------------------	--	--

JOB HAZARD ANALYSIS

United States Department of Interior NATIONAL PARK SERVICE	1. WORK PROJECT/ACTIVITY Prescribed Fire	2. LOCATION Wilson's Creek National Battlefield	3. UNIT All Prescribed Fire
JOB HAZARD ANALYSIS (JHA)	4. NAME OF ANALYST B. Bloodworth	5. JOB TITLE Ozark FMO	6. DATE PREPARED 2-13-04
7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS ENGINEERING - CONTROLS – SUBSTITUTION - ADMINISTRATIVE CONTROLS - PPE	

<p>6. Monitoring Operations</p>	<p>C. Fatigue</p> <p>A. Possibility of entrapment</p> <p>B. Proximity to intense heat and erratic fire behavior.</p>	<p>C. Rotate personnel on different tasks. Take adequate breaks. Drink plenty of water.</p> <p>A. Stay in communication and relay location to Burn Boss and Ignition Specialists. Identified escape routes and safe zones in briefing.</p> <p>B. Use Personal Protective Equipment (PPE), maintain close supervision. Thorough briefing on expected fire behavior. Use appropriate tactics to insure personnel are not subjected to unnecessary heat.</p>
<p>10. SUPERVISOR'S SIGNATURE /s/Bobby Bloodworth</p>	<p>11. TITLE FMO</p>	<p>12. DATE 3-18-05</p>

APPENDIX # 8
IAP/BRIEFING GUIDE

- I. Present Handouts**
 - A. Map of Burn**
 - B. Organization Chart**

- II. Describe Area Of Burn**
 - A. Vegetation Type**
 - B. Acreage**
 - C. Slope**
 - D. Roads/Access**
 - E. High Values at risk**
 - F. Water Sources-natural, tanker and hydrants**
 - G. Natural/Manmade barriers**

- III. Weather Forecast- Use National Weather Service "Forestry" and "Smoke Management" Forecasts for applicable Zones. Use "Fire Weather Special Request" Form if updates are deemed necessary.**
 - A. Wind direction and Speed**
 - B. Relative Humidity**
 - C. Temperatures**
 - D. Predicted Changes**

- IV. Organization**
 - A. Organization Chart - Location on Map**
 - B. Equipment - tankers, refueling, etc.**
 - C. Fire Monitoring**
 - D. Any other resources**
 - E. Transition Fire Plan**

- V. Firing Sequence**
 - A. Test fire**
 - B. Type and Sequence of Firing**

- VI. Radio Assignments**
 - A. Given Day of Burn**
 - B. Communication Plan**

- VII. Safety**
 - A. Winds**
 - B. Escape Routes and Safe Zones**
 - C. Hazards - crew and equipment (wildlife, research plots, trash, etc.)**
 - D. Personal Protective equipment (PPE)**
 - E. Refueling - fuel handling, gloves, spilling, etc.**
 - F. Activation of emergency and headlights on major roads**
 - G. Other public safety considerations**

- VIII. Comments and Questions Period**

APPENDIX # 9

ADEQUATE HOLDING RESOURCES WORKSHEET

Project Name: SW-1, SW-2, NW-5 NW-6 & NW - 7 Fuel Models Inside Project Area: 3
 Prepared By/Date: Bloodworth 2-13-04 Fuel Models Outside Project Area: 1

Characteristics	Output type	Modeling Predictions Inside Project Area	Modeling Predictions Outside Project Area	Unit of Measure
CRITICAL FIRE INPUTS	1 Hr Fuel Moisture	5	5	%
	Wind Speed	8	8	MPH
	Slope	5	5	%
KEY FIRE BEHAVIOR OUTPUTS	Rate of Spread	235	276	ch/hr
	Fire line Intensity	3369	434	BTU/ft/sec
	Flame Length	18.9	7.7	Feet
	POI			%
	Spotting Distance			Miles
	Scorch Height			Feet
FIRE SIZE	Projection Time			Hours
	Forward Spread			Chains
	Backward Spread			Chains
FIRE CONTAINMENT	Method Of Attack	Rear	Rear	Head/Rear
	Max Escape Target	10	10	Acres
	Max Containment Time	1	1	Hours
	Total Line Building Rate	-1	-1	Ch/hr

- Choose worst case total line building rate above that is needed for containment of slop over or spot fire : -1 h/hr
- Estimate potential number spot fires or slop overs at on time: 1
- TOTAL LINE BUILDING RATE NEEDED (multiply line 1 times line 2) -1ch/hr
- Production Rates: Ease of Access: POOR-FAIR-GOOD-EXCELLENT(circle)
 Fuel Resistance to Control LOW- MODERATE-HIGH-EXTREME(circle)
 (refer to fire line handbook) Hand Crew Production 8 ch/hr
 Engine Production (Crew of 2) 12 ch/hr
 Dozer Production (Type) ch/hr

On Site Organization	Total # Planned On Burn	Total # Available for Spot Fire or Slop Over Control		Line Building Production Rates		Spot Fire or Slop Over Line Building Capacity
Overhead	3	0	X	8	ch/hr	0
Firing Crew	3	2	X	4	ch/hr	8
Holding (ATV w/ water)	4	4	X	12	ch/hr	48
Other Personnel			X		ch/hr	
Engine (Crew of 2)	2	2	X	12	ch/hr	24
Dozer (Size)			X		ch/hr	
Other Equipment			X		ch/hr	

5. TOTAL SLOP OVER OR SPOT FIRE LINE BUILDING RATE CAPACITY = 80 ch/hr

6. DETERMINATION OF ADEQUATE HOLDING RESOURCES (Line 5 minus Line 3) 80 ch/hr
 If number on line 6 is positive then adequate holding forces will be available. If number is negative, more holding resources are needed to control potential spot fires or slopovers.

Holding Forces Worksheet Justification: The Behave runs for Fuel Model 1 indicate that the fire is to intense for direct attack and that the initial area is larger or nearly equal to the burn area target. Fuel Model 1 is being used to try and represent the fuel bed outside of the burn unit. However it grossly over estimates ROS, FL and FI within the existing fuels surrounding these burn units. The fuel beds that are next to these burn units are severly grazed pasture land with grass that is less than 2 inches tall. The grass within the pastures are cool season with a live moisture content between 250 to 300%. Fires that do occur in these areas exhibit slow rates of spread and low intensity. The Flame Lengths are less than 1 foot are very easliy control. The existing organization within this burn plan is suffient to control any spots or slop-overs that may occur.

**APPENDIX #10
POST-PROJECT EVALUATION**

Instructions for Completion of Post-Project Evaluation Form

This form is to be completed and submitted for review within 30 days of declaring the project complete.

Block 1 Self-explanatory

Block 2 Copy of the Project Objectives as listed in the Project Plan.

Block 3 Give quantitative results of how well objectives were met, i.e. % of 1 hour and 10 hour fuels removed, % of burn area with fuels reduced, % of area with acceptable/unacceptable scorch, etc.

Block 4 Give a short narrative of problems encountered and suggestions for improving or refining operations and prescriptions i.e. firing pattern, equipment limitations, drought index, effectiveness of barriers.

Block 5 Self-explanatory - for providing feedback to the Program

Block 1)

Individual Leading Evaluation: _____

Management: _____ **Project**

Name: _____

Acres Treated: _____ **Fire**

Number: _____

Total Cost:

Cost/Acre: _____

(Block 2)

Objectives:

(Block 3)

Results:

(Block 4)

Problems Encountered, Methods to Improve Next Operation:

Review & Signature:

Burn Boss: _____

Comments:

FMO: _____

Comments:

Appendix # 12
Pre-burn Notifications List

Mandatory Contact List: All persons or entities on this list will be contacted prior to ignition.

Name	Agency	Phone Number	Date Notified
Dispatcher	Green County Sheriff	(417)868-4040	Burn day
Dispatcher	Christian County Sheriff	(417)581-2332	Burn day
Dispatcher	Missouri State Patrol	(417)895-6868	Burn day
Dispatcher	Battlefield VFD	(417)868-4040	Burn day
Dispatcher	Clever VFD	(417)868-4040	Burn day
KAMO Electric Coop	Vinita, OK	(918)256-5551 x217	2 days prior
U.S. Forest Service	Mark Twain N.F., Ava District	(417)683-4428	Burn day
Barnes, Richard	Air Pollution Control Dept., Missouri Dept. of Natural Resources, Springfield, MO	(471)891-4328	1 week prior
Parker, Duane	State Forester, Missouri Dept. of Conservation, Springfield, MO	(417)895-6880	

Optional Cooperator Contact List: Every effort will be made to contact these cooperators before ignition, however, notification is optional and is not required.

Name	Agency	Phone Number	Date Notified
Davis, William	Director, National Weather Service	869-4491 or 863-7889	1 week prior
Shumway, Steve	National Weather Service	869-4491 or 863-7889	1 week prior

Optional Media Contact List: Every effort will be made to contact these members of the media by phone before ignition, however, notification is optional and is not required.

Name	Agency	Phone Number	Date Notified
Newsroom	KWFC Radio	869-0891	1 week prior
Newsroom	KY3 TV	268-3299 or 268-3200	1 week prior
Newsroom	KSMU	836-5878	1 week prior
Newsroom	KTTS	869-2153	1 week prior
Newsroom	KOLR TV	862-1010	1 week prior
Newsroom	KSPR TV	831-1234	1 week prior

Optional Park Neighbor Contact List: Every effort will be made to contact these park neighbors by phone or mail before ignition, however, notification is optional and is not required.

Name	Agency	Phone Number	Date Notified
Blackwell, D.	Park Neighbor	(417)883-9962	1 week prior
Bybee, L.J.	Park Neighbor	Unlisted	1 week prior
Carroll, Leo	Park Neighbor	(417)869-9787	1 week prior
Dulan, Frances	Park Neighbor	(417)865-6915	1 week prior
Hash, Robert	Park Neighbor	(Warsaw, MO)	1 week prior
Heston, Wayne	Park Neighbor	(417)732-8226	1 week prior
Keet, James	Park Neighbor	(417)887-8711	1 week prior
Kary, Bill	Park Neighbor	(417)889-6440	

Lloyd, Wilma	Park Neighbor	Unlisted	1 week prior
McConnell, Harry	Park Neighbor	(417)732-2592	1 week prior
McDaniel, Ralph	Park Neighbor	(417)881-5517	1 week prior
McElhaney, Dorothy	Park Neighbor	Virginia	1 week prior
McKeel, L.B.	Park Neighbor	(417)883-0998	1 week prior
Neuman, Robert	Park Neighbor	(417)732-6759	1 week prior
Nicolaides	Park Neighbor	(417)732-1930	1 week prior
Perkins, E.	Park Neighbor	(417)862-1494	1 week prior
Rhodes, Gene	Park Neighbor	(417)732-7906	1 week prior
Roller, Mac	Park Neighbor	Unlisted	1 week prior
Sanders, Vernon	Park Neighbor	(417)732-2867	1 week prior
Sheppard, Charles	Park Neighbor	(417)866-7374	1 week prior
Steele, Harry Stephen	Park Neighbor	Unlisted	1 week prior
Twitty, Jo	Park Neighbor	Unlisted	1 week prior

Appendix # 13
PRESCRIBED FIRE RISK ANALYSIS WORKSHEET

Hazard Element	Hazard Probability			Potential Consequences			*Risk (Exhibit 4)
	L	M	H	L	M	H	
1. Environmental Data							
a. Seasonal severity	X			X			L
b. Fire Behavior	X			X			L
c. Fuels	X			X			L
d. Weather		X		X			M
e. Topography	X			X			L
2. Agency Values							
a. Ecological and Environmental Considerations		X			X		M
b. Social and Cultural Values		X			X		M
c. Project Duration and Logistics	X			X			L
d. Smoke and Air Quality Management	X			X			L
3. Public Values							
a. Land use values	X			X			L
b. Dwellings		X			X		M
c. Non-dwellings	X			X			L
4. Human Factors							
a. Firefighter	X			X			L
b. Public	X			X			L
c. Fire Management	X			X			L

APPENDIX # 14
SW-1, SW-2, NW-5 NW-6 & NW -7 Prescribed Fire
Hazard Rating Guide

Hazard Element	Hazard Probability			Potential Consequences		
	L	M	H	L	M	H
1. Environmental Data						
a. Seasonal severity	Energy Release Component below 90 th percentile levels.	Energy Release Component at or above 90 th percentile levels – above average drought conditions.	Energy Release Component at or above 97 th percentile levels – severe drought conditions.	Low probability for problematic fire behavior or difficulty in holding activities.	Some potential for problematic fire behavior or difficulty in holding activities.	High probability for problematic fire behavior and difficulty in control.
b. Fire Behavior	Flame lengths confined to surface fuels, spread rates low.	Flame lengths extending into shrub and tree regeneration, spread rates moderate.	Flame lengths highly variable, frequently involving individual tree crowns, spread rates moderate to fast.	Low probability of difficulty in holding fire or for adverse fire effects.	Some potential for fire behavior to approach upper prescription limits and cause undesirable effects.	High potential for fire behavior to create holding problems, exceed prescription ranges, and cause undesirable effects.
c. Fuels	Surface fuels light with open tree canopies, small shrub component present.	Surface fuels moderate with variable forest stand density and moderate shrub presence.	High surface fuel loading with dense shrub component and dense stands with abundant regeneration.	Fuels present no specific implementation problems.	Fuels will have a marked effect on implementation activities and holding force requirements.	Fuels will dramatically affect management organization and qualifications for implementation.
d. Weather	Weather stable, winds light and predictable, no frontal activity.	Weather slightly variable, winds present but light, occasional gusts, no frontal activity.	Weather highly variable, winds near prescriptive limits, gusts prevalent, frontal activity possible.	Little impact on implementation.	Weather variation will require mitigation actions involving additional resources.	Weather will serve as a major influence on organization, personnel qualifications, and specific implementation actions.
e. Topography	Low variability in slope and aspect.	Some variability in slope and aspect, will affect fuel moisture and fire behavior.	High variability in slope and aspect, major implications on fire behavior and must be considered in prescription development and implementation.	Little influence on burn implementation.	Consideration of topography during planning process is necessary.	Topography will necessitate mitigation actions to be developed and firing patterns and ignition methods to be modified to reduce impacts.

2. Agency Values						
a. Ecological and Environmental Considerations	Fire poses little threat to cause adverse effects or long-term disturbances to natural resource values. No T and E species or critical habitat.	Fire poses moderate threat of adverse effects on natural resources and may cause short- to mid-term alterations or inconveniences such as air quality. Small amounts of T and E species present.	Fire poses high potential for adverse effects to natural resource values or to cause long-term degradations in air quality. Some T and E species present and/ or critical habitat.	Low probability for adverse impacts and little need for mitigation actions.	Mitigation actions may need to be developed to ensure desirable outcomes. Some short-term effects may have to be accepted.	Prescribed Fire Plan must address mitigation actions to prevent undesirable outcomes.
b. Social and Cultural Values	No known social or cultural values in or adjacent to the project area.	Features of social or cultural value have been identified in and adjacent to the project area. Mitigation measures can be accomplished.	High social or cultural values have been identified in or adjacent to the project area. Mitigation actions are difficult to accomplish.	Severe fire behavior or fire outside the unit would not damage the identified values.	Severe fire behavior or fire outside the unit poses potential for moderate damage to special values. Concerned parties are aware and supportive of the project.	Excessive fire severity or fire outside the unit will have adverse effects (substantial damage to or potential destruction of the special sites). Acceptance by concerned parties is low.
c. Project Duration and Logistics	Fire planned to be of short duration, logistical needs easily accommodated.	Fire planned to be of short to moderate duration, logistical needs pose some difficulty.	Fire planned to be of moderate to long duration, logistical needs create much difficulty in accomplishing.	No consequences because of duration or logistics.	Duration may impact firefighters and public and logistical needs must be specifically addressed.	Long duration fire necessitates greater information dissemination, mitigation to remove impacts to firefighters and the public, and logistical needs must be met or project postponed.
d. Smoke and Air Quality Management	Few smoke sensitive areas near project area. No potential scheduling conflicts with cooperators.	Multiple smoke sensitive areas, mitigation actions minimize impacts, low potential for scheduling conflicts.	Multiple smoke sensitive areas near burn area, mitigation actions unable to remove all impacts, duration increases impacts, high potential for scheduling conflicts.	No adverse smoke consequences.	Mitigation actions must address smoke impacts, and coordination is required to confirm scheduling.	Mitigation actions must be developed, regulatory agencies must concur, scheduling conflicts may restrict implementation.

Hazard Element	Hazard Probability			Potential Consequences		
	L	M	H	L	M	H
3. Public Values						
a. Land use values	No commercial or agriculture activities near planned burn area.	Some commercial or agricultural activities near burn unit, some managed wildlands (recreation, timber, range values).	Planned burn directly adjacent to urban, commercial, and/ or agriculture areas.	No impacts from land use values.	Escaped fire onto nearby managed land causes some impacts to commercial values. Prescribed Fire Plan must consider actions to prevent fire movement onto commercial and/ or agriculture lands.	Escaped fire onto nearby managed land causes significant impacts to commercial values. Mitigation actions must reflect additional resource needs to protect urban, commercial, and/ or agriculture areas. If mitigation cannot be accomplished, burn must be postponed.
b. Dwellings	No permanent or part-time residences present in area.	Some residences ½ mile or less from burn area.	Planned burn is located in wildland-urban interface zone, permanent residences in close proximity.	No impacts from dwellings.	Plan must address actions to ensure adequate protection of residences.	Notification of all concerned homeowners, residents, and visitors, coordination with local fire protection organizations is needed, and mitigation actions must adequately address potential fire escapes.
c. Non-dwellings	No non- dwellings present.	Some outbuildings and non- residences ½ mile or less from burn area.	Commercial structures in close proximity to burn area.	No impacts.	Planning must consider these non- dwellings.	Planning and implementation must adequately address all measures to prevent any adverse impacts.