COMB COMPLEX WFU

Stage I and Stage II

Assessment

Sequoia & Kings Canyon National Park
Kings Canyon District

Wildland Fire Assessment, Implementation, and Documentation

Prepared by
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July 22, 2005

Wildland Fire Implementation Plan

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Fire Name	**Comb Complex**
Fire Number	**(Comb 1) CA-KNP—15 (Comb 2) CA-KNP-16**
Administrative Unit(s)	**Sequoia and Kings Canyon National Parks**

Documentation Product	***Needed***	***Completed***
WFIP Stage I:		
Strategic Fire Size-Up	**X**	**X**
Decision Criteria Checklist	**X**	**X**
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WFIP Stage I:

Strategic Fire Size-Up:

Fire Name	**Comb Complex (Combination of Comb 1 and Comb 2 fires)**	
Fire Number	**(Comb 1) CA-KNP-15 (Comb 2) CA-KNP-16**	
Administrative Unit(s)	**Sequoia and Kings Canyon National Parks**	
Start Date/Time	**July 20, 2005 approximately 1500 hrs.**	
Discovery Date/Time	**July 22, 2005 approximately 1140 hrs. (un-confirmed ignition)**	
Current Date/Time	**July 22, 2005 approximately 1700 hrs.**	
Current Size	**Comb 1 – 5 acres, Comb 2 – 5 acres. Total 10 acres**	
Fuel Model	**Montaine Brush best described as NFFL Fuel Model 5 Jeffrey Pine best described as NFFL Fuel Model 9 High Altitude Red Fir best described as SEKI Custom Model 18. Most of the area was last burning in 1998 as part of the Lewis Creek Omnibus Burn Unit.**	
Current Weather	**High pressure continues to dominate the weather pattern with a minor flow of monsoonal moisture into the area. Skies are currently mostly clear. Afternoon temperatures in the fire area range from 75°F to 85°F. Afternoon relative humidity ranges from 25% - 35%.**	
Observed Fire Behavior	**Both fires are burning actively uphill through the brushy fuels and consuming heavier down logs. Active head fire spread rates range from 2 – 6 ch./hr. with flame lengths of 1 – 3 feet. Large standing snags are actively burning within the perimeter. Backing and flanking spread to the south and west is minimal. It is anticipated that the fires will grow together before 1800 hrs on July 23.**	
Location: **Latitude** **Longitude** **Local Description**	**Datum WGS-84** **Comb 1 Latitude 36° 49.98 Longitude 118° 40.26** **Comb 2 Latitude 36° 49.79 Longitude 118° 40.26** **Comb Creek / Lewis Creek drainages approximately 1 ¾ mile ENE of Stag Dome and approximately 2 ½ miles north of Cedar Grove**	
FMU (circle appropriate FMU situation)	(WFU Approved)	WFU Not Approved
Cause (circle fire cause)	(Natural ignition)	Human Caused Ignition

Suitability for Wildland Fire Use (circle situation, initials of person preparing, date/time)	**Wildland Fire Use Candidate** – Continue with Decision Criteria Checklist	**Suppression**	**Initials**	**Date/Time**

Decision Criteria Checklist

Decision Element	Yes	No
Is there a threat to life, property, or public and firefighter safety that cannot be mitigated?		X
Are potential effects on cultural and natural resources outside the range of acceptable effects?		X
Are relative risk indicators and/or risk assessment results unacceptable to the appropriate Agency Administrator?		X
Is there other proximate fire activity that limits or precludes successful management of this fire?		X
Are there other Agency Administrator issues that preclude wildland fire use?		X

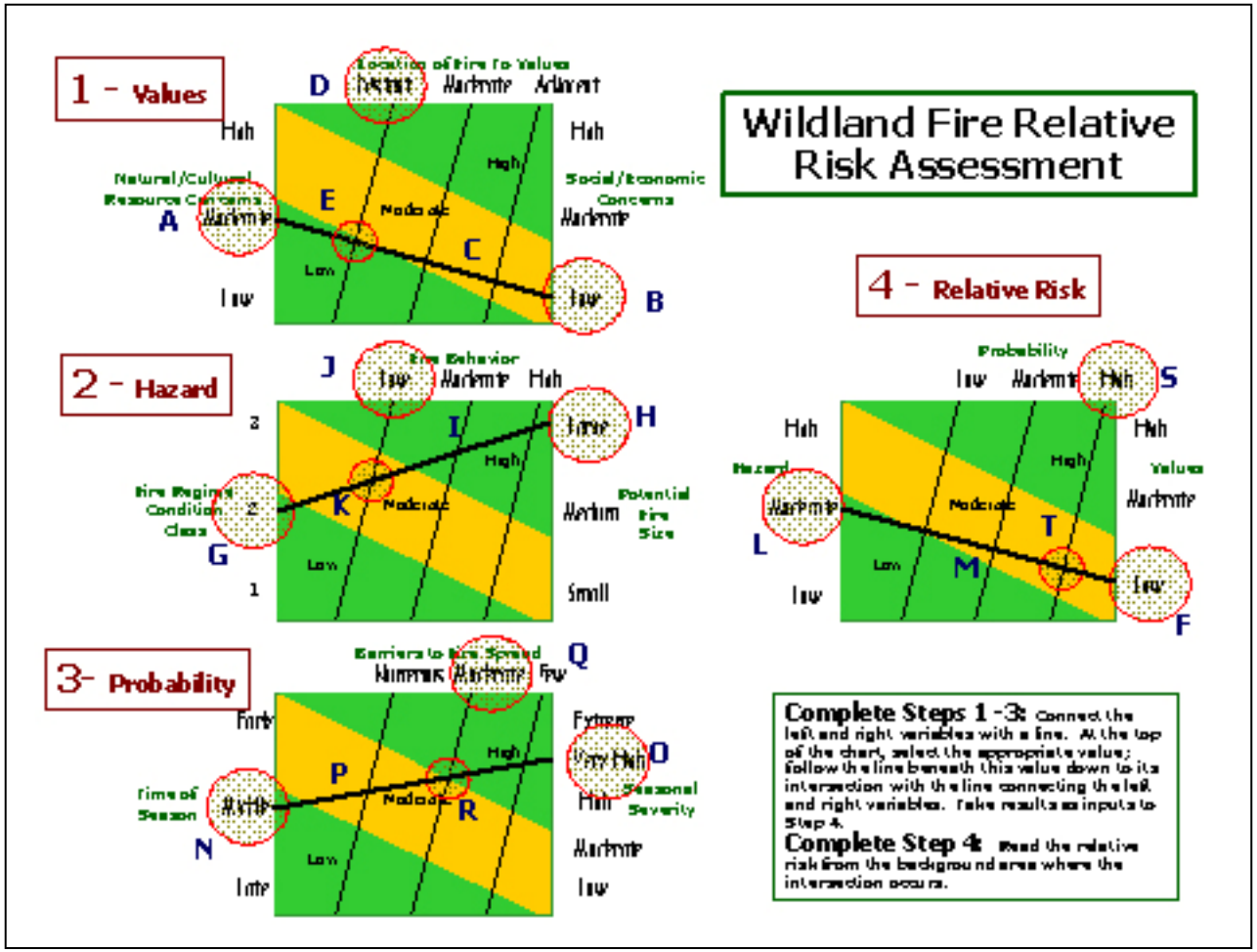
The Decision Criteria Checklist is a process to assess whether or not the situation warrants continued wildland fire use implementation. A "Yes" response to any element on the checklist indicates that the appropriate management response should be suppression-oriented.

Approved Response Action (check one)		Signature/Position	Date
Suppression Response			
Wildland Fire Use Response			

Justification for Suppression Response:

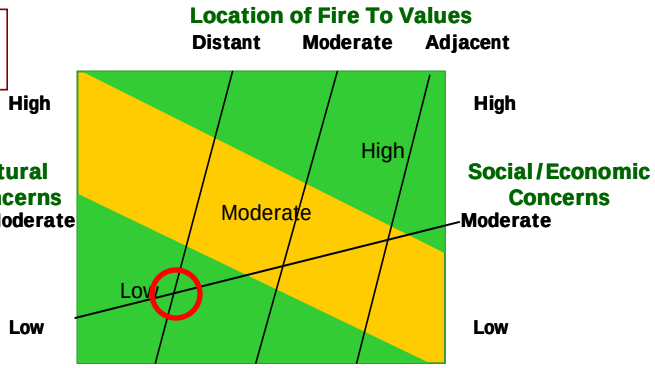
A	Step 1	Locate Natural/Cultural Resource Concern level
B	Step 1	Locate Social/Economic Concern level
C	Step 1	Draw line connecting left and right variables
D	Step 1	Locate Location of Fire to Values level
E	Step 1	Follow interior line down to intersection with line connecting left and right variables, locate Value Assessment output (Low, Moderate, High)
F	Step 4	Take Step 1 - Value Assessment output to Step 4 as Value input
G	Step 2	Locate Fire regime condition class level
H	Step 2	Locate Potential Fire Size level
I	Step 2	Draw line connecting left and right variables
J	Step 2	Locate Fire Behavior level
K	Step 2	Follow interior line down to intersection with line connecting left and right variables, locate Hazard Assessment output (Low, Moderate, High)
L	Step 4	Take Step 2 - Hazard assessment output to Step 4 as Hazard input
M	Step 4	Draw line connecting Value and Hazard levels
N	Step 3	Locate Time of Season level
O	Step 3	Locate Seasonal Severity level
P	Step 3	Draw line connecting left and right variables
Q	Step 3	Locate Barriers to Fire Spread level
R	Step 3	Follow interior line down to intersection with line connecting left and right variables, locate Probability Assessment output (Low, Moderate, High)
S	Step 4	Take Step 3 – Probability assessment output to Step 4 as Probability input
T	Step 4	Follow interior line down to intersection with line connecting left and right variables, locate Relative Risk Assessment (Low, Moderate, High)

Step-By-Step Instructions for Completing the Wildland Fire Relative Risk Assessment

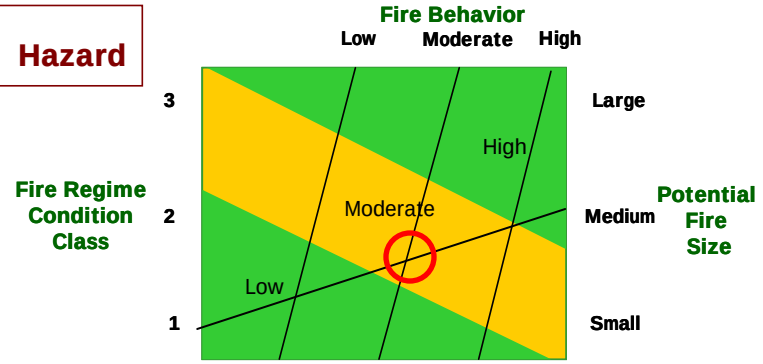


Wildland Fire Relative Risk Assessment

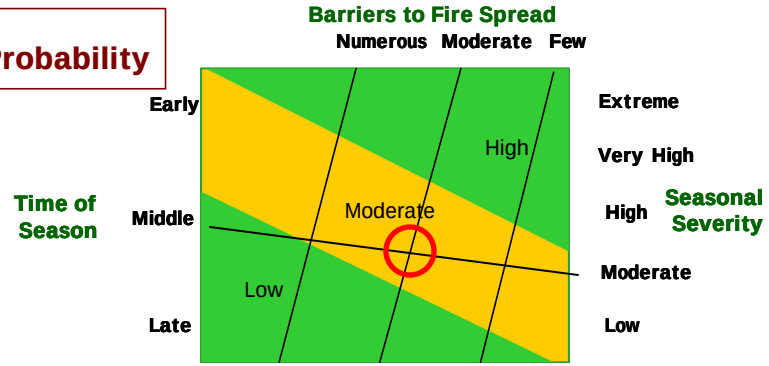
1 - Values



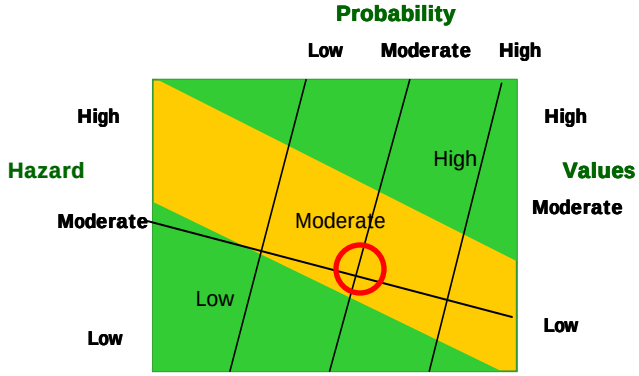
2 - Hazard



3 - Probability



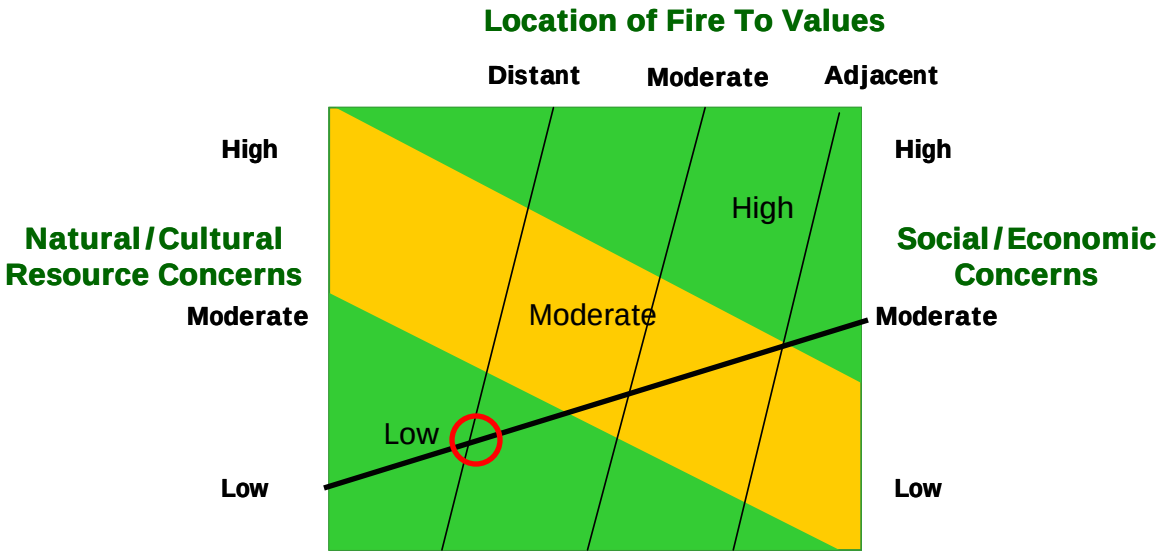
4 - Relative Risk



Complete Steps 1 -3: Connect the left and right variables with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its intersection with the line connecting the left and right variables. Take results as inputs to Step 4.

Complete Step 4: Read the relative risk from the background area where the intersection occurs.

Wildland Fire Relative Risk Assessment:
Step 1: Determining Values



Connect the left and right values with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its intersection with the line connecting the left and right variables. Read the Value Assessment from the background area where the intersection occurs.

Notes:

--No known threats to natural or cultural resources in the area.

--Most significant social concern is smoke management. However, smoke impacts would be mitigated by the remote location of the burn in relation smoke sensitive areas and the San Joaquin Valley.

--Potential impact to trail traffic on the Lewis Creek Trail would need to be mitigated through active trail management (escorts / closures) if the fire encroached the trail or the trail was used as a holding line.

--Aviation resources may be needed to re-supply the trail crew camp located below Kennedy Pass if fire encroaches upon the Lewis Creek Trail.

--Fire will be readily visible from the Hume Lake Road, leading to increased media and public attention.

VALUES SCORE: Low

PART 1: VALUE ASSESSMENT: Values are those ecologic, social, and economic effects that could be lost or damaged because of a fire. Ecologic values consist of vegetation, wildlife species and their habitat, air and water quality, soil productivity, and other ecologic functions. Social effects can include life, cultural and historical resources, natural resources, artifacts, sacred sites. Economic values make up things like property and infrastructure, economically valuable natural and cultural resources, recreation, and tourism opportunities. This assessment area allows opportunity for the local agency administrator to identify particular local concerns. These concerns may be identified in the fire management plan or other planning documents.

Natural/Cultural Resource Concerns - key resources potentially affected by the fire. Examples include, but are not limited to habitat or populations of threatened, endangered, or sensitive species, water quality, erosion concerns, and invasive species.

Low	*Moderate*	*High*
Resource concerns are few and generally do not conflict with management of the fire. Mitigation measures are effective.	***Significant resource concerns exist, but there is little conflict with management of the fire. Mitigation measures are generally effective.***	***Multiple resource concerns exist, some of which may conflict with management of the fire. The effectiveness of needed mitigation measures is not well established.***

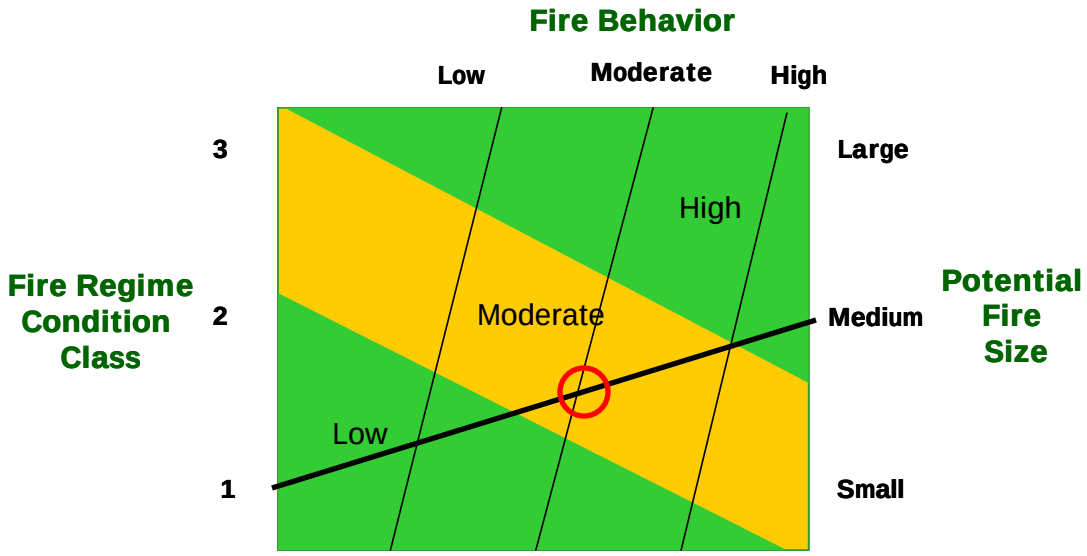
Social/Economic Concerns - the risk of the fire, or effects of the fire, impacting the social or economic concerns of an individual, business, community or other stakeholder involved with or affected by the fire. Social concerns may include degree of support for the Wildland Fire Use program or resulting fire effects, potential consequences to other fire management jurisdictions, impacts to tribal subsistence or gathering of natural resources, air quality regulatory requirements and public tolerance of smoke. Economic concerns may include potential financial impacts to property, business, or infrastructure. Infrastructure impacts may be costs to repair or replace sediment catchments, wildlife guzzlers, corrals, roads, culverts, power lines, domestic water supply intakes, and similar items.

Low	*Moderate*	*High*
Local support for wildland fire use is high. The fire should have little or no impact on subsistence or tribal activities involving treaty rights. The fire is expected to remain within a single jurisdiction or agreements are in place to allow the fire to move across several jurisdictions. Media coverage is favorable. Few structures or business ventures are potentially affected by the fire. There are few impacts to recreation and tourism.	***Local support of wildland fire use is clearly divided between supporters and opponents. The fire will have some impacts on subsistence or tribal activities involving treaty rights. The fire is expected to involve more than one jurisdiction, cooperator, or special interest group and agreements need to be developed. Media coverage tends to be a mix of favorable and unfavorable views. Some structures may be threatened by the fire or some business ventures have been affected by the fire.***	***Local support for wildland fire use is low. The fire will have significant impacts on subsistence activities or tribal activities involving treaty rights. Smoke impacts may become a concern for higher level air quality regulatory agencies. The fire is expected to involve several jurisdictions, cooperators, and special interest groups and agreements requiring significant negotiation need to be developed. Media coverage tends to be unfavorable. Many structures or private properties could be threatened.***

Location of Fire to Values

Distant	*Moderate*	*Adjacent*
Fire location is not proximate to values to be protected or fire is located where it is highly unlikely that it would reach the values.	***Fire location is moderately proximate to values. Location is such that, based on historical data, fire could potentially reach the values but will take multiple burning periods and sustained fire activity to reach the values.***	***Fire location is in close proximity to values. Without mitigation actions, fire will be expected to reach the values.***

Wildland Fire Relative Risk Assessment: Step 2: Determining Hazard



Connect the left and right values with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its intersection with the line connecting the left and right variables. Read the Hazard Assessment from the background area where the intersection occurs.

Notes:

--Area was last burned in 1998 as part of the Lewis Creek Omnibus Burn unit and is within its normal fire regime condition class.

--Potential for fire growth should be expected to range from 300 – 700 acres.

--Fire would mostly spread through surface fire with occasional torching and spotting. Short duration runs are possible.

FIRE BEHAVIOR SCORE: Moderate

PART 2: HAZARD ASSESSMENT: The hazard in wildland fire is made up of the conditions under which it occurs and exists, its ability to spread and circulate, the intensity and severity it may present, and its spatial extent.

Current Fire Behavior – the current fire behavior or that most recently observed. Changing fire behavior is addressed through repeated completion of the Periodic Fire Assessment.

Low	*Moderate*	*High*
Short duration flaming front with occasional torching. Fuels are uniform and fire behavior can be easily predicted and tactics implemented.	***Short range spotting occurring. Moderate rates of spread are expected with mainly surface fire and torching. Fuels and terrain are varied but don't pose significant problems in holding actions.***	***Long range spotting > ¼ mile. Extreme rates of spread, and crown fire activity are possible. Fuels, elevation, and topography vary throughout the fire area creating high resistance to control.***

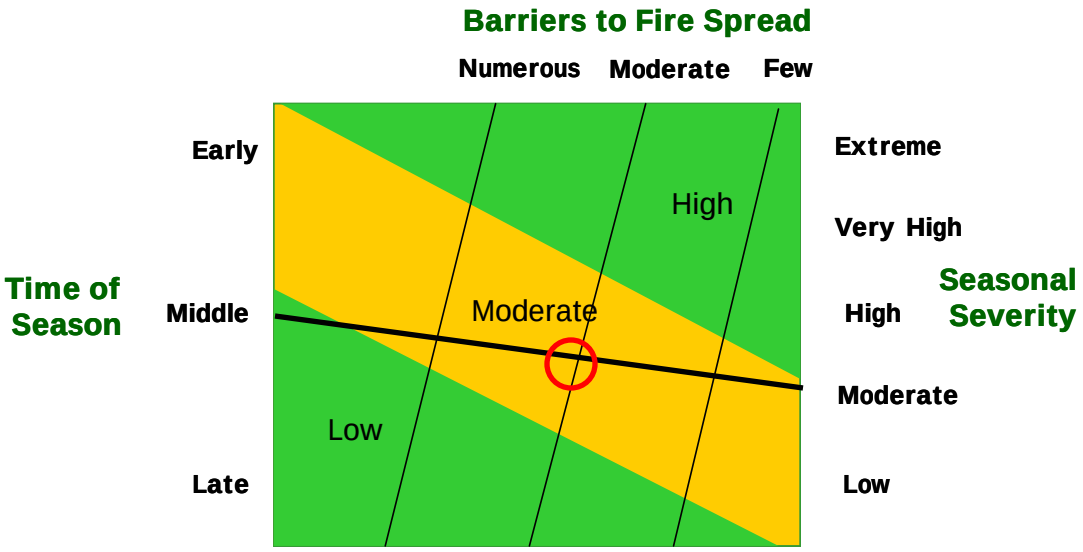
Fire Regime Condition Class – a measure of ecological functions at risk based on changes in vegetation.

1	*2*	*3*
Vegetative composition and structure are resilient and key components are at low risk of loss. Few, if any, fire return intervals have been missed and fuel complexes are similar to historic levels.	***Both the composition and structure of vegetation has shifted towards conditions that are less resilient and more at risk of loss. Some fire return intervals have been missed, stand structure and composition, and fuel complexes have been altered and present potential for fires of severity and intensity levels in excess of historic levels.***	***The highly altered composition and structure of the vegetation predisposes the landscape to fire effects well outside the range of historic variability, potentially producing changed fire environments never before measured.***

Potential fire size - the potential fire size by the end of the season in comparison to historical fire occurrence.

Small	*Medium*	*Large*
Fire size is expected to be small for the dominant fuel type involved	***Fire size is expected to be in the mid-range for the dominant fuel type involved***	***Fire size is expected to be large for the dominant fuel type involved.***

Wildland Fire Relative Risk Assessment: Step 3: Determining Probability



Connect the left and right values with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its intersection with the line connecting the left and right variables. Read the Probability Assessment from the background area where the intersection occurs.

Notes:

--Currently in the middle of fire season and a season ending event should not be expected until early November

--Seasonal severity is moderate as ample snowfall and a late, wet spring has significantly reduced long term drought effects from last year.

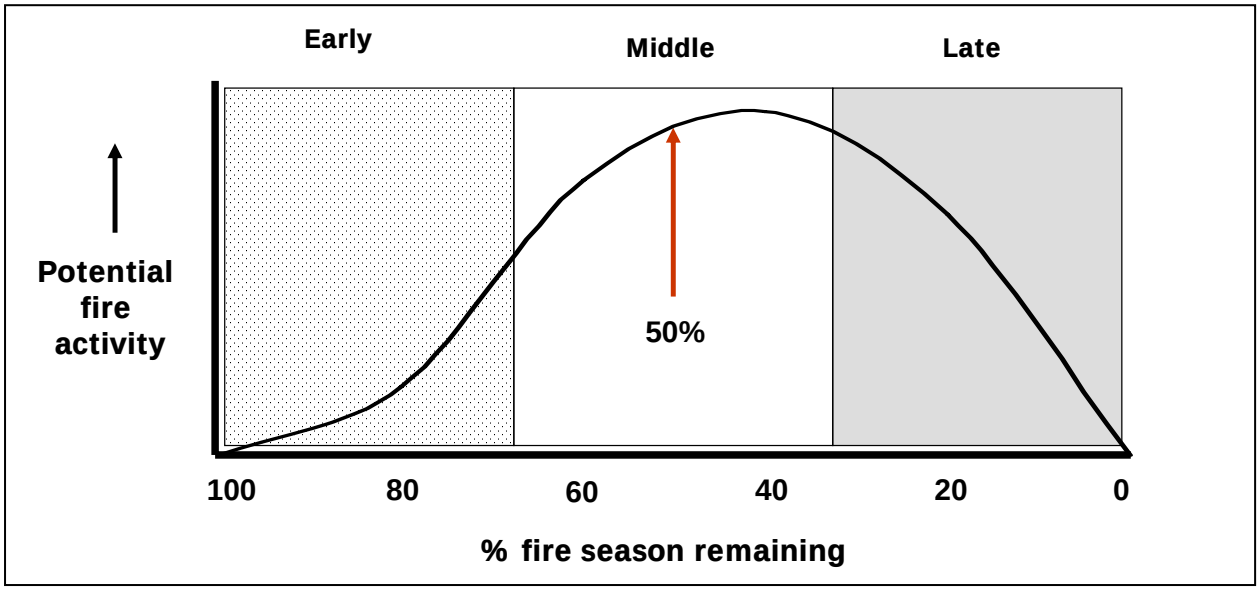
--Previous burns and significant expanses of rock will impede fire spread, but fire may still spread rapidly through brushy areas.

PROBABILITY SCORE: Moderate

PART 3: PROBABILITY ASSESSMENT: Probability refers to the likelihood of a fire becoming an active event having potential to adversely affect values.

Time of Season - the current time in relation to the historical fire season. The chart below the guidelines reinforces the importance of time of season. During the early part of the fire season, the peak of burning activity is still to come, thus the fire could present substantial variation in behavior and activity. In the middle of the season, the peak of burning activity may or may not have occurred while in the late part of the season, the peak of fire activity generally has occurred and managers can reasonably expect diminishing fire activity and behavior as time progresses. As the amount of fire season remaining decreases or as the time of season progresses from early to late, management concerns and issues associated with potential fire activity decrease.

Early	*Middle*	*Late*
The current date is in the early portion of the historic fire season, at least 2/3 of the established fire season remains and the peak of burning activity is still to come.	***The current date is in the middle of the historic fire season, at least 1/3 of that period has passed and no less than 1/3 remains. The peak burning activity period either has occurred, is occurring now, or will occur very soon.***	***The current date is in the latter part of the historic fire season. At least 2/3 of the historic period has passed, the peak burning activity period has occurred, and the probability of a season-ending or fire-ending event is increasing quickly.***



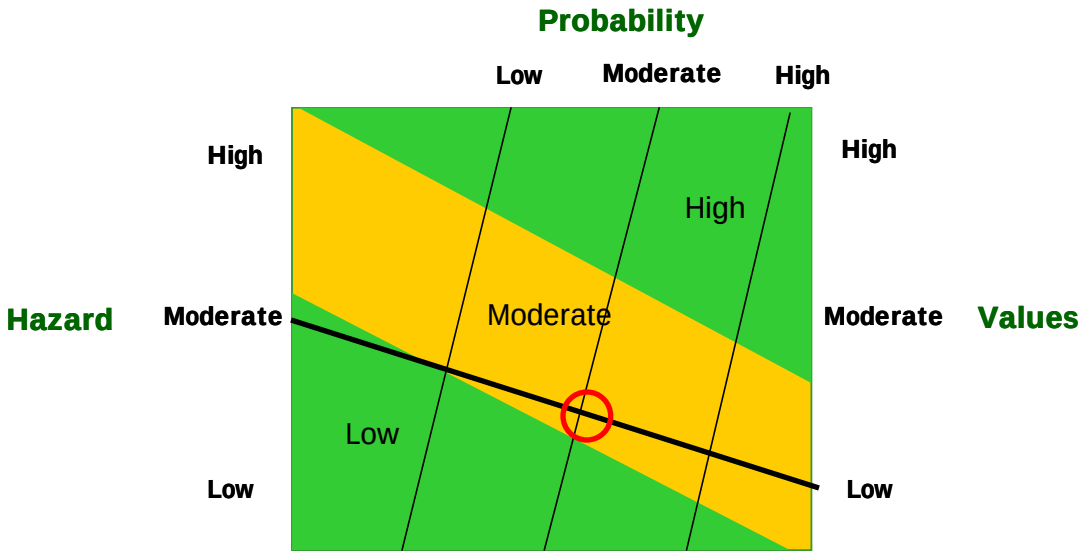
Seasonal Severity - a measure of the potential burning conditions as expressed by factors such as ERC, drought status, live fuel moistures, dead fuels moistures, soil moisture, stream discharge, and similar types of measures.

Low	*High*	*Extreme*
Measures of fire danger are below to somewhat above seasonal averages. Drought status is within seasonal norms with no long-term drought present	***Measures of fire danger are well above seasonal averages but not setting new records. The area is in short-term drought (1-2 years of drought) but not considered to be in long-term drought.***	***Measures of fire danger are setting new records. The area is considered to be in long-term drought (3 or more years of drought).***

Barriers to Fire Spread – a measure of the natural defensibility of the fire location and an indication of degree of potential mitigation actions needed.

Numerous	*Moderate*	*Few*
The location of the fire and presence of natural barriers and fuel breaks limit the horizontal fuel continuity, minimal mitigation actions on-the-ground will be needed.	***The location of the fire and presence of some natural barriers and fuel breaks limit the horizontal fuel continuity on some, but not all fire flanks, some mitigation actions on-the-ground will be needed to protect threats to boundaries and sensitive areas.***	***The location of the fire and presence of only limited natural barriers and fuel breaks will permit fire spread across continuous fuels. Mitigation actions on-the-ground will be needed but are expected to be effective.***

Wildland Fire Relative Risk Assessment:
Step 4: Determining Wildland Fire Relative Risk

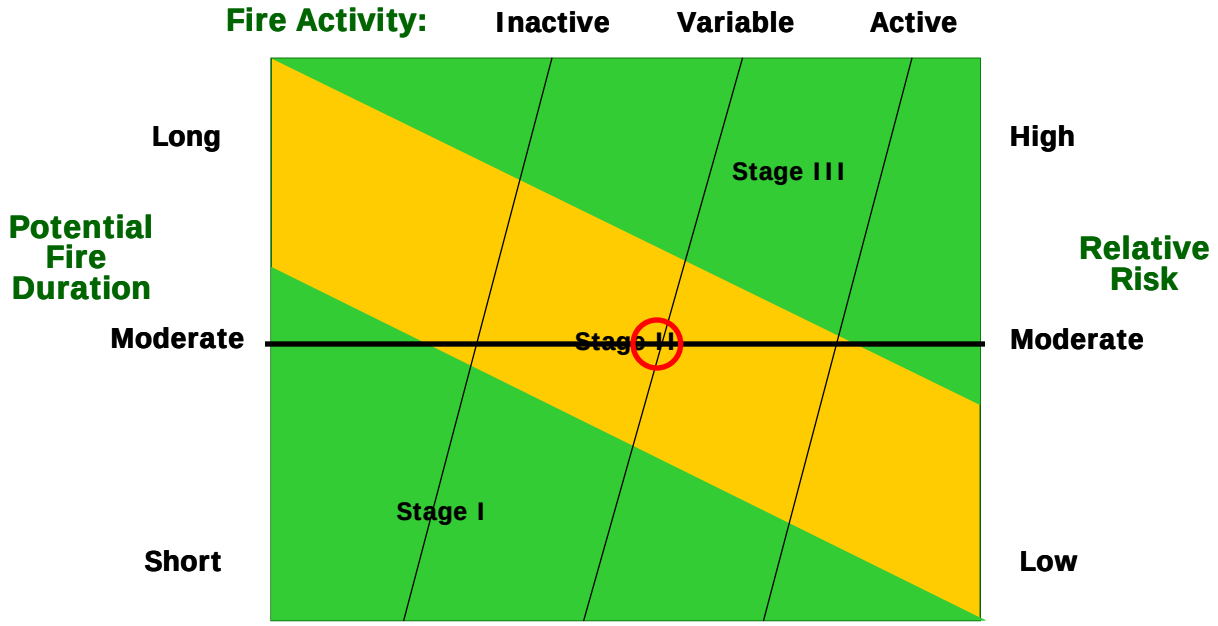


Connect the left and right values with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its intersection with the line connecting the left and right variables. Read the Relative Risk from the background area where the intersection occurs.

Notes:

RELATIVE RISK – Moderate

Planning Needs Assessment Chart



To complete the chart, connect the left and right variables with a single line (potential fire duration and relative risk, respectively). Select the appropriate level of fire activity at the top of the chart and follow the line beneath that value down to its intersection with the line connecting the left and right variables. Read the planning need from the background area where the intersection occurs. The Relative Risk values are those obtained from the Wildland Fire Relative Risk Assessment process (Wildland Fire Relative Risk Assessment).

M**inimum** interagency qualification requirements for wildland fire use planning at each stage of the WFIP process. This information should be used with the Planning Needs Assessment Chart to determine appropriate levels of planning qualifications. Higher qualified personnel can always be used to complete the various planning levels if desired. Duty Officer qualifications are defined in local unit Fire Management Plans.

WFIP Stage	Minimum Planning Qualifications
WFIP Stage I	Unit Duty Officer
WFIP Stage II	Fire Use Manager Type 2 (FUM2)
WFIP Stage III	Fire Use Manager Type 2 (FUM2)

Guidelines for Planning Needs Assessment Chart.

Potential Fire Duration – the estimated length of time that the fire may continue to burn in comparison to historical fire durations and amount of fire season available for a given area.

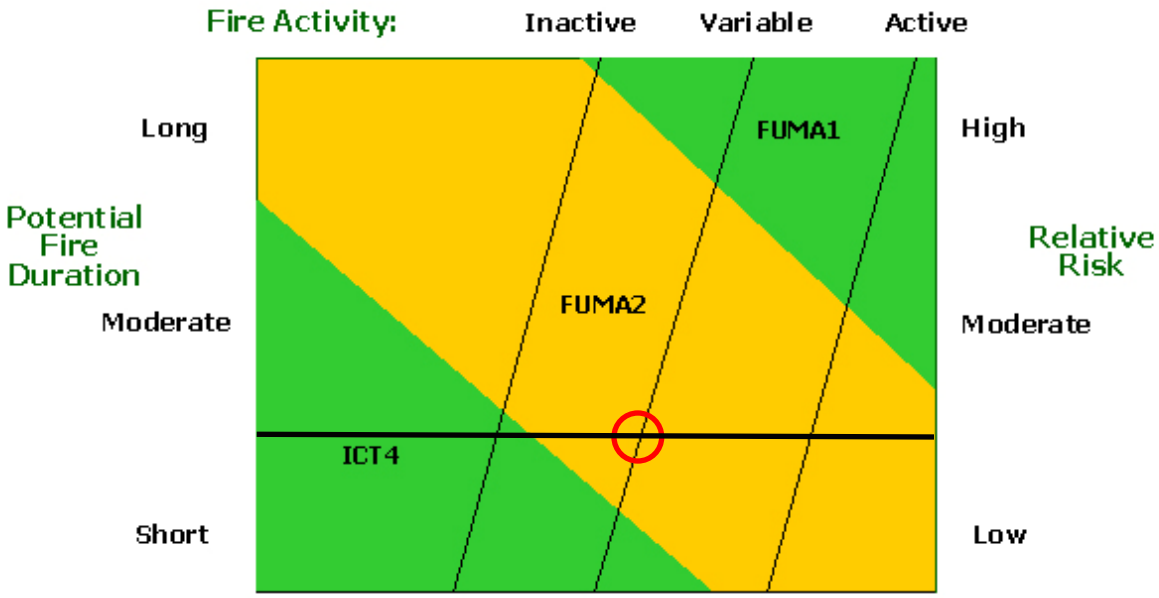
Short	*Moderate*	*Long*
Fire is expected to persist for only the shortest time in comparison to historical fire durations. This may be as short as only a few days. Fuels may be limiting, weather may be limiting, or time of fire season may be limiting. Generally, this could be referenced as less than the historical average fire length for a given area.	***Fire is expected to last for a time period similar to the historical average length of fires.***	***Fire is expected to last for a time period longer than the historical average length of fires.***

Relative Risk – a measure of the relative risk, determined directly from the Wildland Fire Relative Risk Assessment, so no range of values is listed here.

Fire Activity - the relative activity of the fire in terms of intensity and spread over time.

Inactive	*Variable*	*Active*
Fire is burning with very low intensity, little or no spread, and little or no increase in burned area. Fire is confined to surface litter and duff layers.	***Fire is burning predominantly in surface litter and duff layers, with low intensity and little or no spread but has occasional periods of increased intensity and spread. Growth of burned area is not constant but occurs in response to increased activity. Area increase may be static for moderately long periods and then increase for short periods. Fire size usually increases by less than 50% during active periods.***	***Fire is burning in all fuel strata (litter, surface, and crown) with periods of sustained flaming fronts, perimeter growth, and area increases that can exceed 100% at times. Infrequent periods of low activity occur but spread is generally constant.***

Fire Use Manager Decision Chart



To complete the chart, connect the left and right variables with a single line (potential fire duration and relative risk, respectively). Select the appropriate level of fire activity at the top of the chart and follow the line beneath that value down to its intersection with the line connecting the left and right variables. Read the level of Fire Use Manager needed directly from the background area where the intersection occurs. The Relative Risk values are those obtained from the Wildland Fire Relative Risk Assessment process (Wildland Fire Relative Risk Assessment).

Minimum level of implementation qualifications. During implementation, as fire activity and management needs escalate, implementation qualification needs ascend to a higher level. But as conditions moderate and management needs drop, implementation qualifications can descend to lower levels. Table 3 and Figure 8 are used jointly as fire situations and conditions escalate; when conditions are moderating or lessening, Figure 8 provides the necessary qualification levels for implementation.

WFIP Stage	**Minimum Implementation Qualifications** (Use Fire Use Manager Decision Chart to determine recommended position)
WFIP Stage I	Incident Commander Type 4 (ICT4) **(must have local knowledge or prior experience in implementing WFIPs and managing wildland fire use events)**
WFIP Stage II	Fire Use Manager Type 2 (FUM2)
WFIP Stage III	Fire Use Manager Type 2 (FUM2)

Guidelines for Fire Use Manager Decision Chart.

Potential Fire Duration – the estimated length of time that the fire may continue to burn in comparison to historical fire durations and amount of fire season available for a given area.

Short	*Moderate*	*Long*
Fire is expected to persist for only the shortest time in comparison to historical fire durations. This may be as short as only a few days. Fuels may be limiting, weather may be limiting, or time of fire season may be limiting. Generally, this could be referenced as less than the historical average fire length for a given area.	***Fire is expected to last for a time period similar to the historical average length of fires.***	***Fire is expected to last for a time period longer than the historical average length of fires.***

Relative Risk – a measure of the relative risk, determined directly from the Wildland Fire Relative Risk Assessment, so no range of values is listed here.

Fire Activity - the relative activity of the fire in terms of intensity and spread over time.

Inactive	*Variable*	*Active*
Fire is burning with very low intensity, little or no spread, and little or no increase in burned area. Fire is confined to surface litter and duff layers.	***Fire is burning predominantly in surface litter and duff layers, with low intensity and little or no spread but has occasional periods of increased intensity and spread. Growth of burned area is not constant but occurs in response to increased activity. Area increase may be static for moderately long periods and then increase for short periods. Fire size usually increases by less than 50% during active periods.***	***Fire is burning in all fuel strata (litter, surface, and crown) with periods of sustained flaming fronts, perimeter growth, and area increases that can exceed 100% at times. Infrequent periods of low activity occur but spread is generally constant.***

Management Actions:

Forecasted Weather (Include an initial assessment of air quality forecasts / allowable burn days as applicable)	**High pressure can be expected to continue to dominate the weather pattern for much of the next week. Continued inflow of monsoonal air will leave the threat of afternoon and evening thunderstorms in the forecast.** **Expect temperatures to remain above normal with afternoon highs in the burn areas running 75°F – 85°F. Relative humidity is forecasted to be at seasonal averages and should range for 25% - 35% in the afternoon. Strong potential for development of a nighttime thermal belt** **Day time smoke dispersion will be dominated by up-canyon flow, principally to the east. Transport flow out of the canyon could be dominated by south to southwest winds aloft. Nighttime smoke can be anticipated to flow down the Lewis Creek and Kings Canyon drainages. Significant nighttime down canyon flow toward the San Joaquin Valley is not expected.**
Forecasted Fire Behavior	**Fire will primarily continue to move up hill through surface fuels with minor torching and spotting. Head fire spread rates should range from 2 – 6 ch/hr. with flame lengths of 1 – 3 feet. Short duration uphill runs are likely. Backing and flanking spread to the south and west will be slow.**
Hazards and Safety Concerns	**Fire Hazards: The fire is burning in steep terrain where rolling material is likely. Access is steep and difficult requiring air support to access and accurately map the fire.** **Numerous snags in the fire area will create significant safety hazards to personnel working around the fire. Snag JHA will be implemented.** **Smoke and Health Hazards: Limited potential to impact population centers because of remote location.** **Fire is in a relatively remote area and should pose minimal threat to visitors.**
Management Actions	**Monitor fire by air and on ground to determine weather patterns, spread patterns, fuel characteristics, and smoke production and dispersion.**
Availability of Resources	**All resources needed to manage the fire are available at this time.**

Periodic Fire Assessment

Insert the following sections, either by completing new versions or by using those already completed as part of the WFIP Stage I:

- Decision Criteria Checklist
- Wildland Fire Risk Assessment
  - Part 1: Planning Needs Assessment
  - Part 2: Fire Use Manager Decision Chart
- Signature Page

Periodic Fire Assessment

SIGNATURE TABLE

Assessment Frequency _____

Valid Date(s) _____

Name/Title	Date	Decision Criteria Checklist Valid	WFIP Planning Stage Required	Fire Use Manager Level
		Y/N	I,II,III	I, II, Other

WFIP Stage II:

Attach Stage I information.

Objectives:

Objectives	**(1) Provide for Firefighter and Public Safety** **(2) Allow fire to play its natural role and restore natural fire regimes.** **(3) Monitor smoke production and mitigate smoke impacts as possible.**

Fire Situation:

Current and Predicted Weather	**CURRENT** **High pressure continues to dominate the weather pattern with a minor flow of monsoonal moisture into the area. Skies are currently mostly clear. Afternoon temperature in the fire area would range from 75°F to 85°F. Afternoon relative would range from 25% - 35%.** **PREDICTED** **High pressure can be expected to continue to dominate the weather pattern for much of the next week. Continued inflow of monsoonal air will leave the threat of afternoon and evening thunderstorms in the forecast.** **Expect temperatures to remain above normal with afternoon highs in the burn areas running 75°F – 85°F. Relative humidity is forecasted to be at seasonal averages and should range for 25% - 35% in the afternoon. Strong potential for development of a nighttime thermal belt**
Current and Predicted Fire Behavior	**CURRENT** **Both fires are burning actively uphill through the brushy fuels and consuming heavier down logs. Active head fire spread rates would range from 2 – 6 ch./hr. with flame lengths of 1 – 3 feet. Large standing snags are actively burning within the perimeter. Backing and flanking spread to the south and west is minimal.** **PREDICTED** **It is likely that both fire will merge before 1800 hrs on July 23. The merged fire will primarily continue to move up hill through surface fuels with minor torching and spotting. Head fire spread rates should range from 2 – 6 ch/hr. with flame lengths of 1 – 3 feet. Short duration uphill runs are likely. Backing and flanking spread to the south and west will be slow.**

Threats	**Minor threat to air quality**
Safety Considerations	**Fire Hazards: The fire is burning in steep terrain where rolling material is likely. Access is steep and difficult requiring air support to access and accurately map.** **Numerous snags in the fire area will create significant safety hazards to personnel working around the fire. Snag JHA will be implemented.** **Smoke and Health Hazards: Limited potential to impact population centers because of remote location.** **Fire is in a relatively remote area and should pose minimal threat to visitors.**
Environmental Concerns	**None**
External Concerns	**Smoke impacts to the San Joaquin Valley**

Management Actions:

Management Actions	**(1) Monitor fire by air and ground to assess movement, behavior, and weather patterns.** **(2) Complete FARSITE and long term fire analysis to determine the projected fire spread.** **(3) Determine trigger points to begin line construction and burnout operations to mitigate smoke impacts.** **(4) Coordinate management of the fire with other park divisions and operations**

Estimated Costs:

Estimated Costs	**Air Operations**	**$30,000**
	Overtime / Personnel Services	**$20,000**
	Equipment	**$ 5,000**
	TOTAL	**$55,000**

Periodic Fire Assessment

Insert the following sections, either by completing new versions or by using those already completed as part of the WFIP Stage I:

- Decision Criteria Checklist
- Wildland Fire Risk Assessment
  - Part 1: Planning Needs Assessment
  - Part 2: Fire Use Manager Decision Chart
- Signature Page

Periodic Fire Assessment

SIGNATURE TABLE

Assessment Frequency _____

Valid Date(s) _____

Name/Title	Date	Decision Criteria Checklist Valid	WFIP Planning Stage Required	Fire Use Manager Level
		Y/N	I,II,III	I, II, Other

Comb Complex

Sequoia & Kings Canyon National Parks