



GARDEN Incident Decision

Published
07/31/17 21:09

Table of Contents

1. Decision	2
1.1. Decision Summary.....	2
1.2. Incident Information.....	3
1.3. Weather.....	7
1.4. Modeling.....	10
1.5. Risk	11
1.6. Objectives	17
1.7. Course of Action	20
1.8. Cost	21
1.9. Rationale	22

1. Decision

1.1. Decision Summary

Decision Information

NAME	VALUE
Published	07/31/2017 21:09CDT
Estimated Cost	\$5,000,000
Incident Owner(s)	Judy Forbes, Alfred Watson, Kevin Elliott, Brent Skaggs, Bart Kicklighter
Editor(s)	
Reviewer(s)	
Approver(s)	Alfred Watson
Natl Preparedness Level	4

Decision History

Editor Name	Action	Date (CDT)	Comment
Watson, Alfred	Published	07/31/2017 21:09	
Watson, Alfred	Approved	07/31/2017 21:09	
Forbes, Judy	Review Requested	07/31/2017 21:07	
Forbes, Judy	Review Requested	07/31/2017 21:05	
Forbes, Judy	Created	07/31/2017 17:15	

1.2. Incident Information

The Garden Fire

View of the fire on July 30th at 1800.

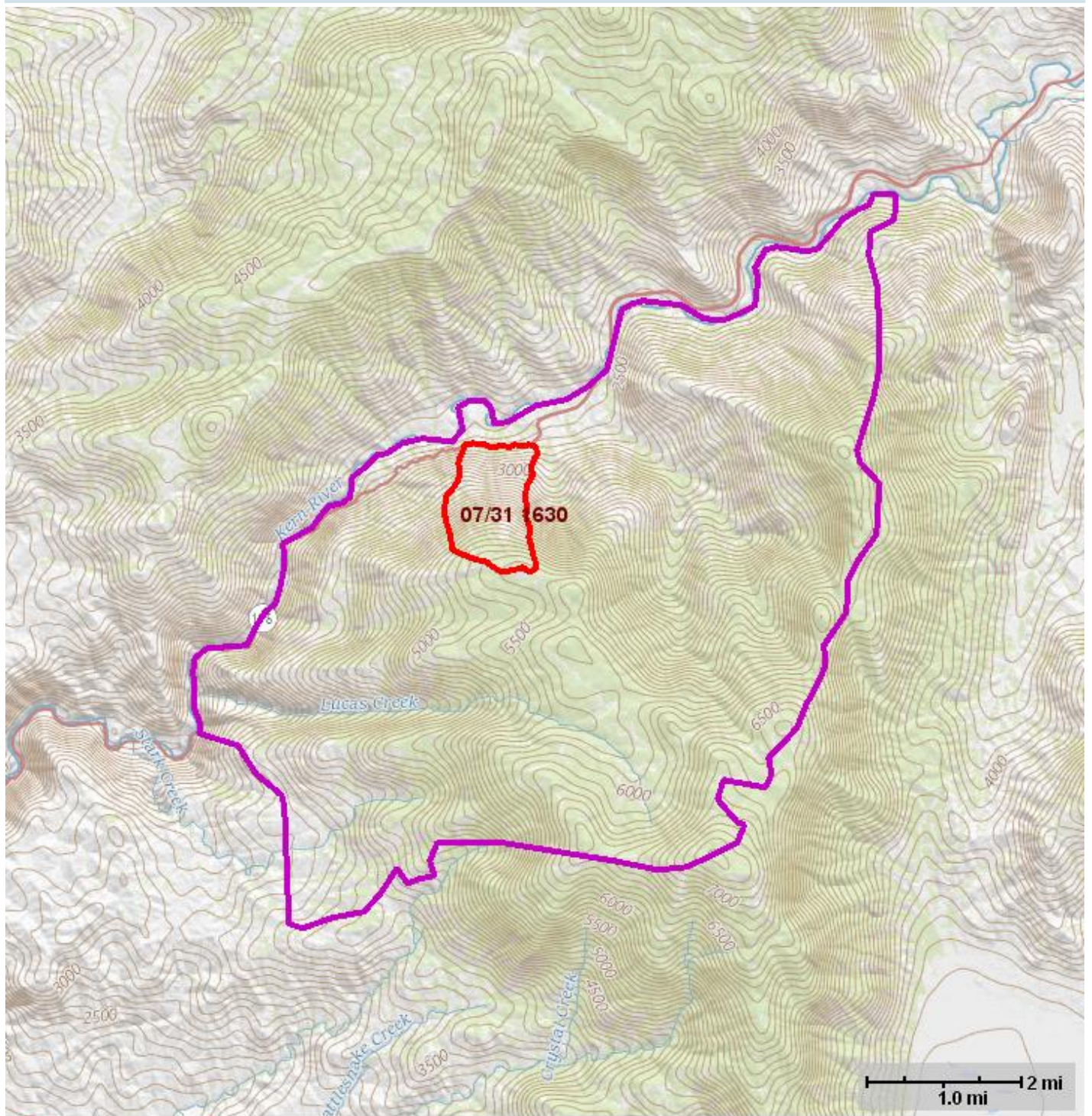


View of the fire from Hwy 178 on July 30th at 1800.

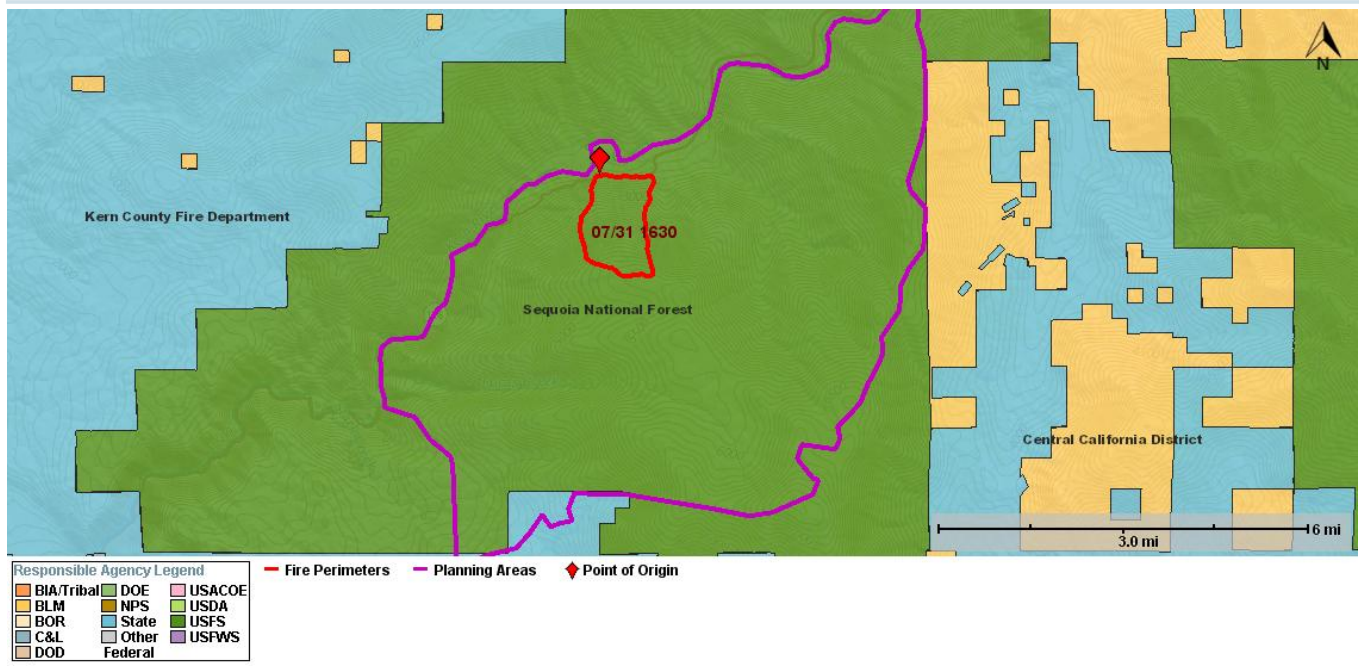


Incident Information

NAME	VALUE
Incident Name	GARDEN
Unique Fire Identifier	2017-CASQF-001989
Responsible Unit Name	Sequoia National Forest
FireCode	K8KR
P-Code	P5K8KR
Point of Origin	35.53111N / 118.64778 W
Incident Size	800acres
Latest Perimeter Size	982acres
Incident Cause	Undetermined
Incident Type	Wildfire
Incident Discovery	07/30/2017 16:39
Contained	
Controlled	
Out	
Jurisdictional Unit	CASQF - Sequoia National Forest
Jurisdictional Agency(s)	USFS
Geographic Area (prep level)	Southern California (3)
Owner Name(s)	Judy Forbes, Alfred Watson, Kevin Elliott, Brent Skaggs, Bart Kicklighter



Responsible Agency Boundaries



1.3. Weather

Fire Weather Zone Forecast

000
FNUS56 KHNX 312230
FWFHXX
Fire Weather Planning Forecast for Interior Central California
National Weather Service San Joaquin Valley - Hanford CA
330 PM PDT Mon Jul 31 2017
.DISCUSSION...
A slight chance of afternoon thunderstorms will be possible near the Sierra crest through Saturday. The upper level flow pattern becomes more favorable by midweek for an influx of subtropical moisture, resulting in an increased chance of mountain and desert thunderstorms. Increasing relative humidities are expected as well.
CAZ295-011730-
Kern County Mountains-
nfdrs trend area 530
330 PM PDT Mon Jul 31 2017
...Increased Dry Lightning Threat in Thunderstorms...
.TONIGHT...
Sky/weather.....Partly cloudy.
Min temperature....
5000 FEET.....66-71.
24 HR TREND.....Up 2-4 degrees.
MAX HUMIDITY.....
5000 FEET.....40-50 percent.
24 HR TREND.....Little change.
WIND - 20 FOOT (10 MINUTE AVERAGE)
SLOPES.....Upslope/upvalley 5-12 mph in the early evening
then westerly 4-9 mph .
RIDGES.....Northwest 5-13 mph.
LAL.....1.
CHC WETTING RAIN...0 percent.
.TUESDAY...
Sky/weather.....Mostly sunny.
Max temperature....
5000 FEET.....88-93.
24 HR TREND.....Little change.
MIN HUMIDITY.....
5000 FEET.....15-25 percent.
24 HR TREND.....Little change.
WIND - 20 FOOT (10 MINUTE AVERAGE)
SLOPES.....Downslope 3-7 mph in the early morning then
easterly 4-10 mph by afternoon.
RIDGES.....Northeast 3-9 mph in the early morning shifting
to the southeast 5-12 mph by afternoon.
LAL.....1.
VENTILATION.....Excellent.
Mixing height.....14300 ft AGL.
TRANSPORT WINDS.....East 5 to 10 mph.
CHC WETTING RAIN...0 percent.
.TUESDAY NIGHT...
Sky/weather.....Mostly cloudy then becoming partly cloudy.
Min temperature....
5000 FEET.....68-73.
24 HR TREND.....Up 2-4 degrees.
MAX HUMIDITY.....
5000 FEET.....44-54 percent.
24 HR TREND.....Up 2-4 percent.
WIND - 20 FOOT (10 MINUTE AVERAGE)
SLOPES.....Upslope/upvalley 3-8 mph.
RIDGES.....Southwest 5-10 mph in the early evening
shifting to the west 4-9 mph .
LAL.....1.
CHC WETTING RAIN...0 percent.
.WEDNESDAY...
Sky/weather.....Mostly sunny. Slight chance of showers and
thunderstorms in the afternoon.
Max temperature....
5000 FEET.....85-90.
24 HR TREND.....Down 1-3 degrees.
MIN HUMIDITY.....
5000 FEET.....19-29 percent.
24 HR TREND.....Up 3-5 percent.
WIND - 20 FOOT (10 MINUTE AVERAGE)
SLOPES.....Downslope 4 mph in the early morning increasing
to 4-9 mph by afternoon.
RIDGES.....Northeast 3-6 mph in the early morning
increasing to southeast 6-11 mph by afternoon.
LAL.....1 until 1200.
VENTILATION.....Excellent.
Mixing height.....12000 ft AGL.












Fire Weather Zone Forecast

TRANSPORT WINDS.....Southeast 5 to 10 mph.
 CHC WETTING RAIN....0 percent.
 .EXTENDED...
 .THURSDAY...
 Partly cloudy. Slight chance of showers and thunderstorms.
 Temperatures little change. Minimum RH little change.
 20-FOOT WINDS...
 SLOPES.....Upslope/upvalley 3-8 mph.
 RIDGES.....South 3-8 mph.
 .FRIDAY...
 Partly cloudy. Slight chance of showers and thunderstorms.
 Temperatures little change. Minimum RH down 1-3 percent.
 20-FOOT WINDS...
 SLOPES.....Upslope/upvalley 6-11 mph.
 RIDGES.....West 6-14 mph.
 .SATURDAY...
 Partly cloudy. Temperatures little change. Minimum RH little change.
 20-FOOT WINDS...
 SLOPES.....Upslope/upvalley 6-15 mph.
 RIDGES.....West 7-18 mph.
 \$\$
 JDB
 weather.gov/hanford

Predictive Services Significant Fire Potential

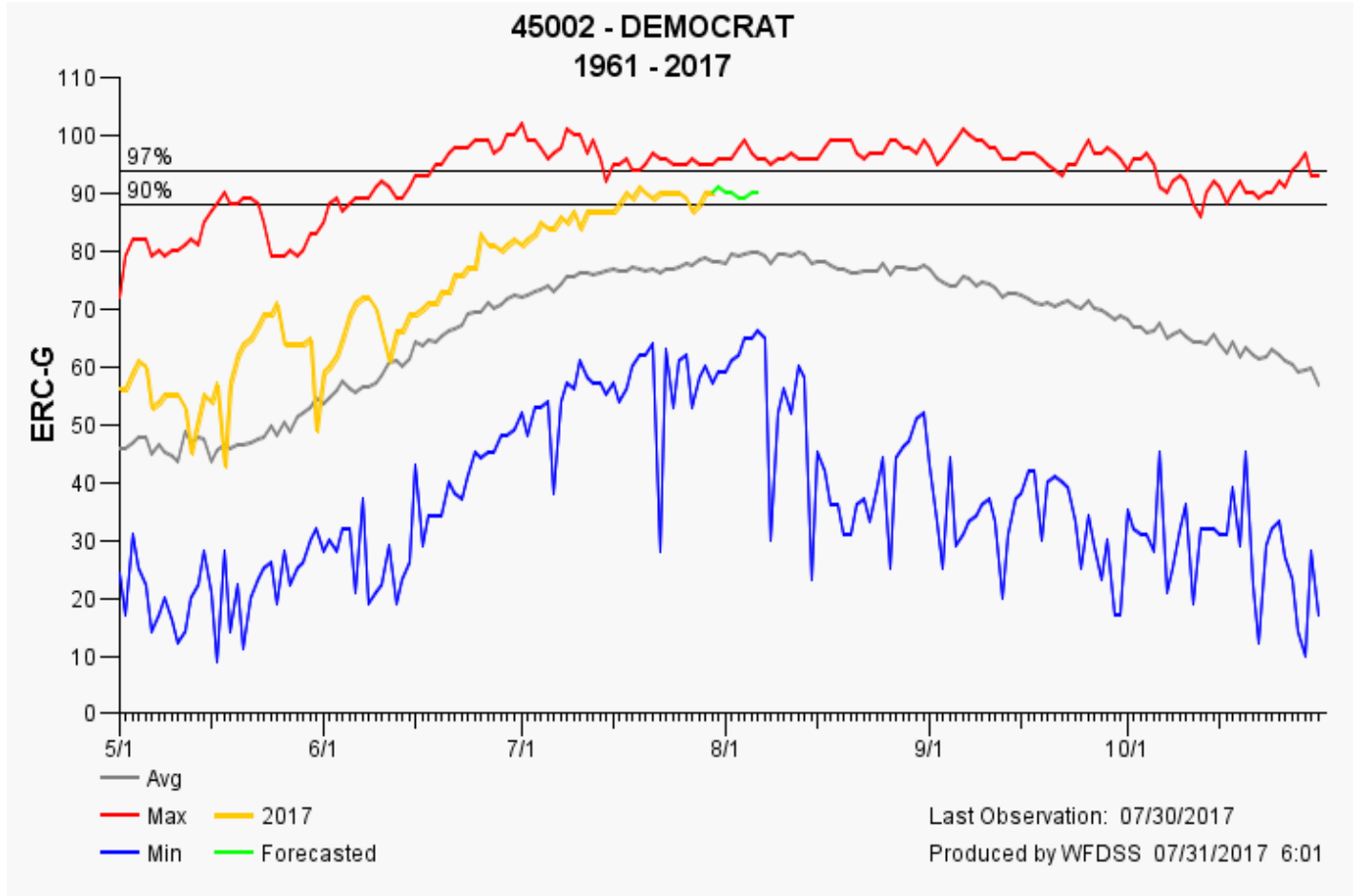
Incident Name Latitude Longitude Predictive Services Area
 GARDEN 35.53111N 118.64778W SC03 - Southern Sierra

Mon Jul 31	Tue Aug 1	Wed Aug 2	Thu Aug 3	Fri Aug 4	Sat Aug 5	Sun Aug 6
-	-	-	-	-	-	-

<u>Dryness Level</u>		<u>Critical Burn Environment</u>		<u>Ignition Triggers</u>	
 Moist	 W Windy	 L Lightning			
 Dry	 U Unstable	 HR High Recreation			
 Very Dry	 HD Hot and Dry	 B Burn Environment			
 No Forecast	 D Dry				

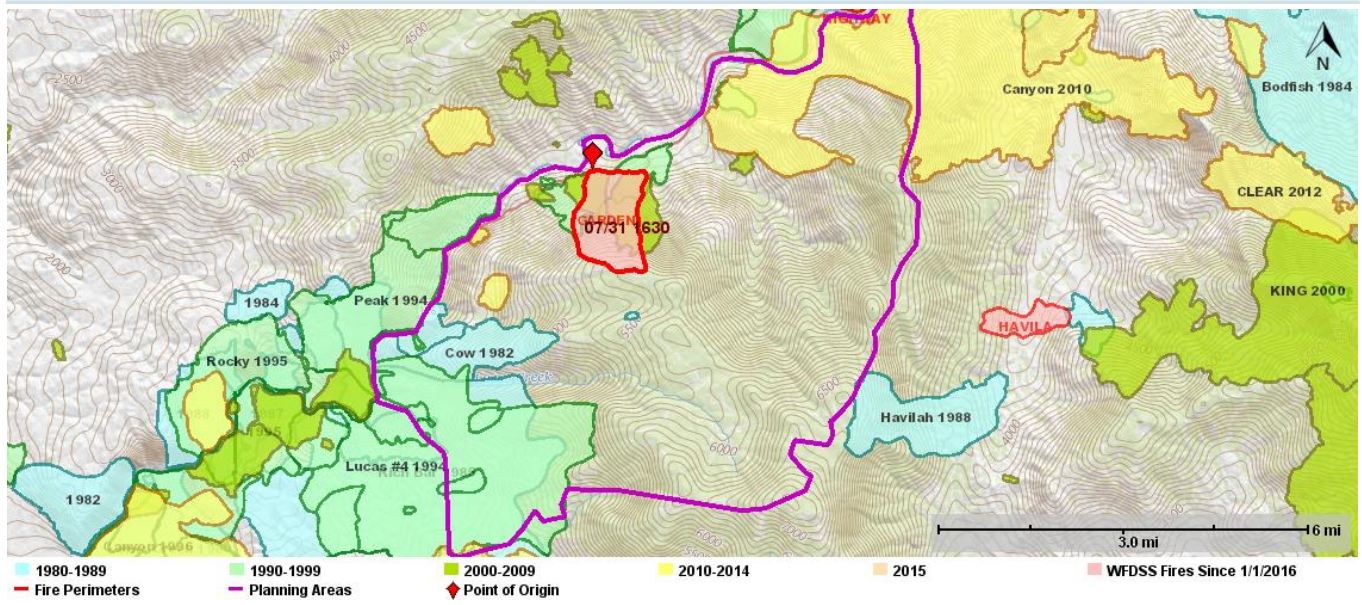
High risk denotes either dry or very dry fuel conditions coupled with a potential ignition trigger and/or one or more critical burn environment factors.

Latitude 35.53189 N Longitude 118.63058 W Elevation 721 m, 2,364 ft

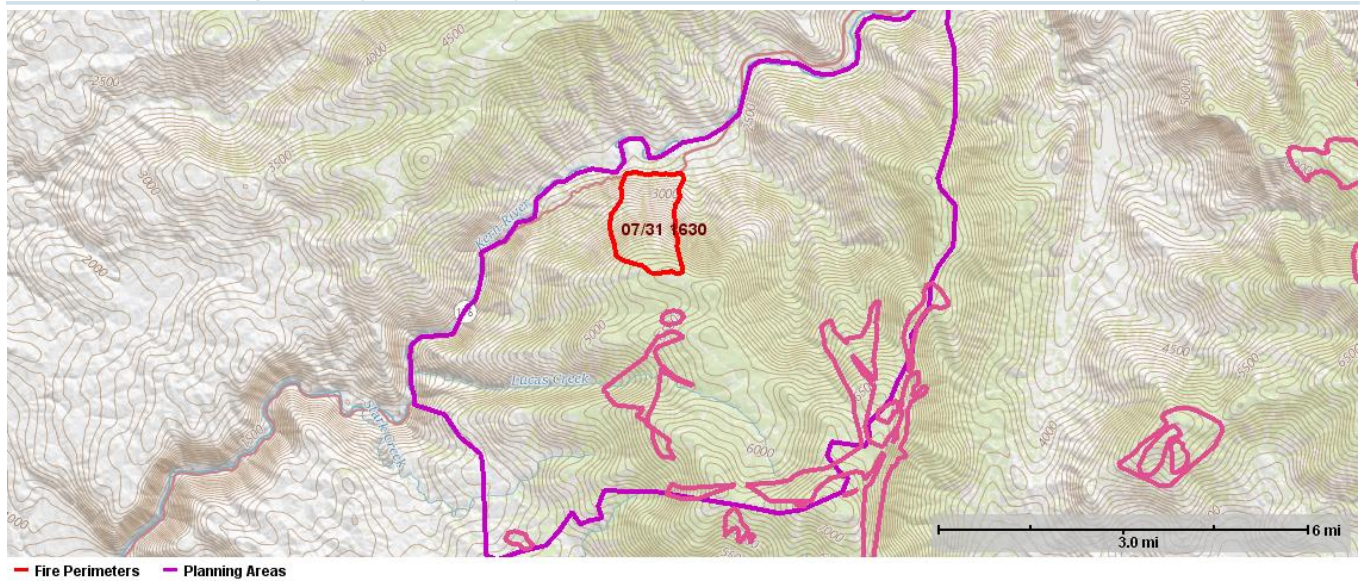


1.4. Modeling

Fire History 1980 to 2017



Areas of Faded Red High Severity Tree Mortality



1.5. Risk

Relative Risk

NAME	VALUE
Relative Risk	High
Duration	Moderate
Saved By	Watson, Alfred
Completed	07/31/2017 20:46CDT

Relative Risk Notes

Potential fire duration is moderate due to fuel type and location. As fire progresses, more barriers exist to help in suppression efforts.

Values Notes

Historical values exist if fire moves south. Threat to Democrat Fire Station exist with holding lines within 100 yards of facility. Social/Economic concerns are high due to Highway 178 being closed as well as Kern River closed to commercial and private boaters. Smoke intrusion could also become a factor for Kern River Valley residences.

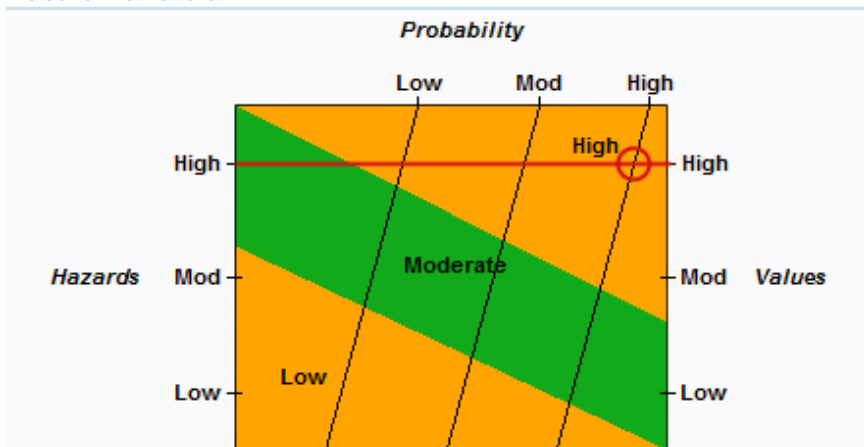
Hazards Notes

Fuel condition at moderate due to fire being carried primarily by grass component. Fire behavior is moderate due to fuel condition. Potential for growth is high due to hot dry conditions, receptive fuels, steep inaccessible terrain and lack of resources when ordered.

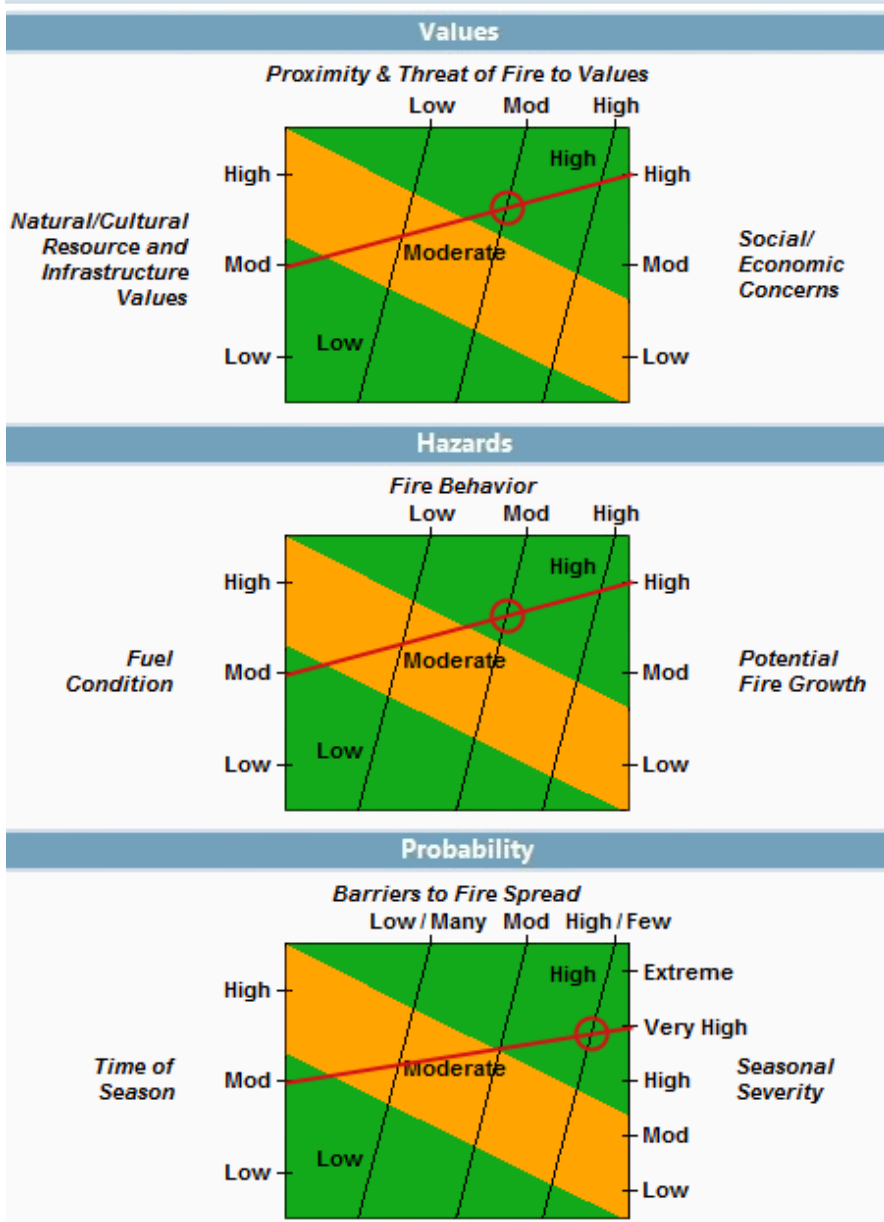
Probability Notes

Fire is currently in an inventoried road less area. Expected weather will be hot and dry for next week.

Relative Risk Chart



Relative Risk Inputs



Organization Assessment

NAME	VALUE
Unit Recommended Org Type 2	
Saved By	Watson, Alfred
Completed	07/31/2017 20:56CDT

Organization Assessment Notes

Potential for fire to expand rapidly exist. If so, complexity will rise dramatically with community threatened as well as multiple agency involvement. Type 2 team was ordered today. In briefing tomorrow at 11 am.

Relative Risk Notes

Potential fire duration is moderate due to fuel type and location. As fire progresses, more barriers exist to help in suppression efforts.

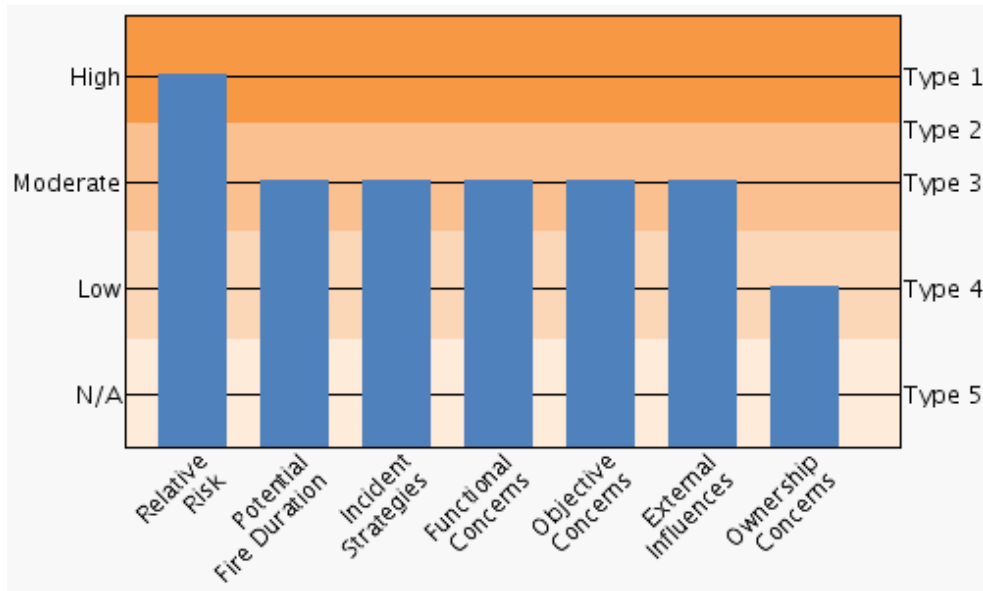
Implementation Difficulty Notes

Course of action and functional concerns are moderate. Old fire-breaks exist in this area to help with suppression efforts.

Socio/Political Concerns Notes

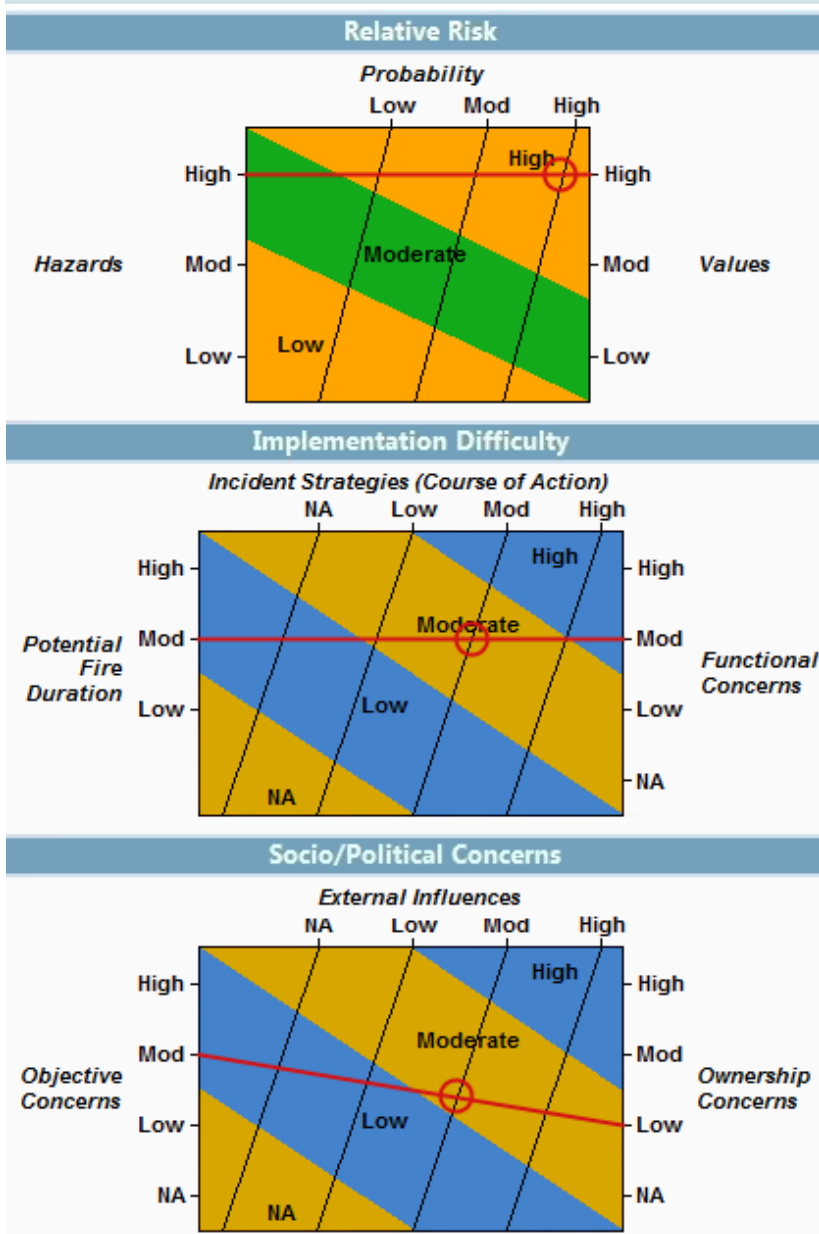
Objective concern at moderate due to unknowns that exist for potential. As long as assigned resources stay with fire, duration could be short. Should higher priority fires take resources, then fire duration would increase. Low ownership concerns as fire is currently all on NFSL.

Organization Assessment Chart



Unit Recommended Org: Type 2

Organization Assessment Inputs



Planning Area Values Inventory

NAME	VALUE
Planning Area Name	07/31/2017 21:09
Incident Name	GARDEN
Planning Area Size	29,990 acres

Category	Value	Data Source	Currency	Coverage
Building Clusters: Kern, CA	37	US Counties / FGDC Cadastral Subcomm.		Available counties
CASQF - Forest wide / Private Lands	521 acres	CASQF		Unit
Campgrounds	1	BLM (FAMS) and USFS INFRA	02/03/2015	National (BLM and USFS only)
Communication Towers	26	FCC	06/14/2012	National
County: Kern, CA	29,989 acres	HSIP 2011, US Census Bureau TIGER data	07/01/2010	National
Est Ground Evac Time: 1-2 Hrs	15,612 acres	National Park Service NIFC	11/01/2012	CONUS

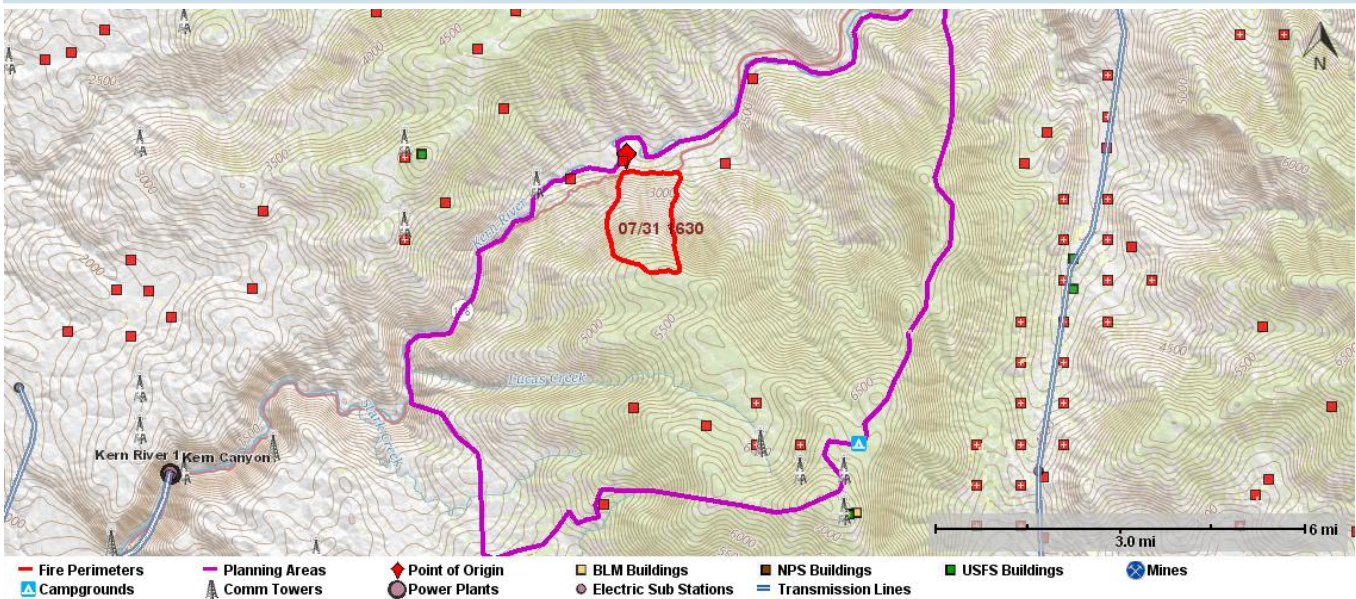
Planning Area Values Inventory

Category	Value	Data Source	Currency	Coverage
Est Ground Evac Time: 2-4 Hrs	6,218 acres	National Park Service NIFC	11/01/2012	CONUS
Estimated Population	13	LandScan USA / Oak Ridge Laboratory	04/08/2015	National
IRA: Greenhorn Creek IRA	1 acres	Various		National
IRA: Mill Creek IRA	21,148 acres	Various		National
Jurisdictional Agency: USFS	29,073 acres	Various	05/29/2015	National
Ozone Non-Attainment	29,989 acres	EPA	6/5/2012	National
Particulates Non-Attainment	23,593 acres	EPA	8/24/11	National
Responsible Agency: BLM	1 acres	Various	July 2015	AK, CA, ID, MT, NM, MN
Responsible Agency: CDF	424 acres	Various	July 2015	AK, CA, ID, MT, NM, MN
Responsible Agency: USFS	29,559 acres	Various	July 2015	AK, CA, ID, MT, NM, MN
Roads	6.8 miles	NAVTEQ	11/2012	National

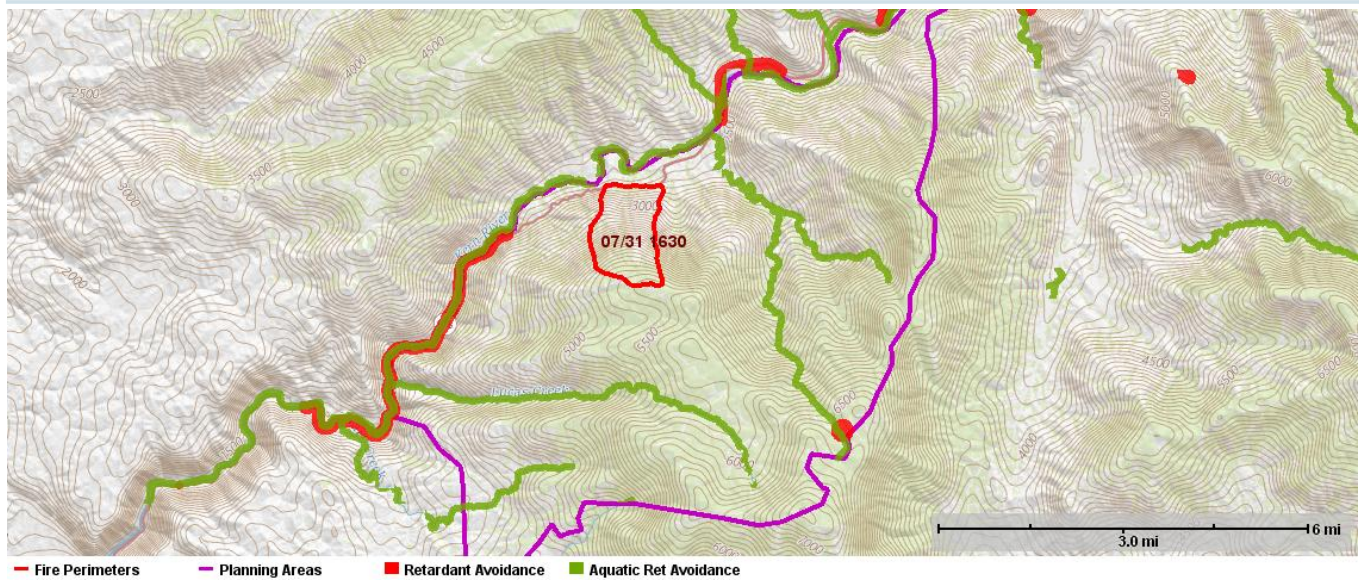
Coverage of Values Queried that Produced No Results

BLM Buildings (BLM Lands), BLM Horse and Burro (National), BLM Oil / Gas Leases (Western United States), BLM Range Allotments (National), Class 1 Airsheds (National), Electric Power Plants (National), Electric Sub Stations (National), Electric Transmission Lines (National), Habitat (National), Mines (National), NPS Buildings (National), NRA (National), Natl Historic Trails (National), Natl Recreation Trails (National), Natl Scenic Byways (National), Natl Scenic Trails (National), Oil and Gas Pipelines (National), Other Areas (National), Sage Grouse Habitat (National), TNC Lands (National), USFS Buildings (National), USFWS Trails (National), WSA (National), Wilderness (National)

Infrastructure Values at Risk



Retardant Avoidance Areas



1.6. Objectives

Incident FMU/Strategic Objective Code List

Unit	FMU/Strat Obj Code	Acres
CASQF	GEN - General Forest - Outside Monument	7,930
CASQF	NON - All Non-Federal In-Holdings	521
CASQF	RLS - Inventoried Roadless	21,148

Spatial Fire Planning Inventory

Category	Value	Data Source	Currency	Coverage
Aqua Retardant Avoidance	1,825 acres	USFS Enterprise Data Warehouse	7/14/2015	National (USFS Units only)
Retardant Avoidance	373 acres	USFS Enterprise Data Warehouse	4/19/2017	National (USFS Units only)

Incident Objective List

Activated	Incident Objective
07/31/2017	<p>Firefighter and Public Safety Incident Objectives</p> <ul style="list-style-type: none"> • Provide for firefighter and public safety as the highest priority through sound risk management and Life First Principles. • Identify site specific hazards and mitigations to reduce firefighter exposure to environmental conditions. • Ensure public safety through appropriate implementation of road and trail closures. If necessary, develop/utilize evacuation plans for communities.
07/31/2017	<p>Natural Resource Protection Incident Objectives</p> <ul style="list-style-type: none"> • Minimize adverse effects from suppression actions to riparian areas and watersheds. • Consult with resource advisor and cultural resource specialist.
07/31/2017	<p>Property Protection Incident Objectives</p> <p>Defend structures and infrastructure within the fire area, including:</p> <ul style="list-style-type: none"> • Democrat Fire Station • Breckenridge Lookout • Communication Towers • Breckenridge Campground • Breckenridge Estates

Incident Requirement List

There are no Incident Requirements.

Strategic Objective List

Unit	Shape/ FMU	Activated	Strategic Objective
CASQF	<Unit>	05/09/2011	Provide adequate fire protection at a cost that is commensurate with the resource values being protected (LRMP-Chapter 1 Section B Pages 1-2)
CASQF	<Unit>	05/09/2011	With natural and prescribed fire the Forest objective is to maintain 35 percent of the chaparral in young seral stage, 35 percent in middle seral stage and 30 percent in older mature seral stage (LRMP-Chapter 2 Section XIV.B Pages 2-12)
CASQF	<Unit>	05/09/2011	Meet visual quality objectives established by this plan. (Nothing specific to wildfires) (LRMP-Chapter 4 Section B.9 Pages 4-2)
CASQF	<Unit>	07/15/2012	<p>Aerial retardant drops are not allowed in mapped avoidance areas (on National Forest system lands) for threatened, endangered, proposed, candidate or sensitive (TEPCS) species or in waterways. This national direction is mandatory and would be implemented except in cases where human life or public safety is threatened and retardant use within avoidance areas could be reasonably expected to alleviate that threat.</p> <p>Nationwide Aerial Application of Fire Retardant on National Forest System Land; Record of Decision; December 2011; page 2</p>

Strategic Objective List

Unit	Shape/ FMU	Activated	Strategic Objective
CASQF	GEN	05/09/2011	Goals for fire and fuels management include reducing threats to communities and wildlife habitat from large, severe wildfires and re-introducing fire into fire-adapted ecosystems. (SNFPA ROD, 2004 Page 34)
CASQF	GEN	05/09/2011	Maintain high quality fisher habitat. Provide for heterogenous landscapes that may allow torching and small stand-replacing fire events but will be resilient and retain large tree elements to provide for future habitat and seed trees (SNFPA ROD, 2004 Page 47)
CASQF	RLS	08/22/2011	Use fire management strategies that will protect and preserve the Roadless area characteristics and minimize the impacts to potential wilderness designation. Some resources or features that are often present and should be considered in developing your strategies are: high quality or undisturbed soil; Natural appearing landscapes with high scenic quality, free from modern human control or manipulation; an area void of the evidence of modern human presence or occupation and are possible reference landscapes. Reminder: A road is a motor vehicle travelway over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary. (36 CFR Part 294.11 Definitions. Roadless Area Conservation - Final Rule (66 Federal Register 3272, January 12, 2001).

Management Requirement List

Unit	Shape/FMU	Activated	Management Requirement
	Aqua Retardant Avoidance	06/18/2013	The aerial application of fire retardant is allowed for fighting fires. Aerially delivered fire retardant should not be applied to any mapped aquatic avoidance area, waterway or buffer. The only exception to using aerially applied fire retardant in avoidance areas is for the protection of human life or public safety . The Incident Commander is the decision maker. Information concerning the Record of Decision for the Aerial Application of Fire Retardant is available at http://www.fs.fed.us/fire/retardant/index.html
	Retardant Avoidance	05/31/2012	The aerial application of fire retardant is allowed for fighting fires. Aerially delivered fire retardant should not be applied to any mapped terrestrial avoidance area, waterway or buffer. The only exception to using aerially applied fire retardant in avoidance areas is for the protection of human life or public safety . The Incident Commander is the decision maker. Information concerning the Record of Decision for the Aerial Application of Fire Retardant is available at http://www.fs.fed.us/fire/retardant/index.html
CASQF	<Unit>	05/09/2011	We will consult with appropriate tribal governments and tribal communities regarding fire protection and fuels management activities that potentially affect rancherias, reservations, and other occupied areas (SNFPA ROD, 2001 and 2004 Page 52 and 25)
CASQF	<Unit>	05/09/2011	Maintain cooperative agreements and/or operating plans with all neighboring fire protection agencies. These agreements provide for coordinated fire management planning and the sharing of fire protection resources, thus augmenting the fire suppression and management capabilities of each agency. Fires that threaten lands of more than one jurisdiction are jointly managed. Initial attack planning is based upon using the nearest suppression force (LRMP-Chapter 3 Section C.7 Pages 3-16)
CASQF	<Unit>	05/09/2011	Fire Suppression will be done with minimum ground disturbance in the following areas: Bodfish Piute Cypress 310 acres, Ernest C. Twisselmann 860 acres, Bald Mountain 440 acres, Baker Point 780 acres, Slate Mountain 490 acres, Inspiration Point 270 acres, and Packsaddle Cave 40 acres. Established pursuant to 36 CFR 294.1(a) Regional Forester direction (LRMP-Chapter 4 Section G.2. Pages 4-90)
CASQF	<Unit>	07/15/2012	The Forest Service will report to FWS and NOAA fisheries (as appropriate) all misapplications of aerially applied fire retardant (on National Forest system lands). The report and assessment of impacts will determine necessary mitigation measures, remediation action, monitoring needs, and whether there is a need for reinitiation of formal consultation. Reporting and monitoring of misapplications of fire retardant is outlined in the Implementation Guide for Aerial Application of Fire Retardant. http://www.fs.fed.us/fire/retardant/afr_handbook.pdf
CASQF	GEN	05/09/2011	Lightning-caused fires may be used to reduce fuel loads or to provide other resource benefits, such as conserving populations of fire-dependent species. Before wildland fires can be used, national forest managers must prepare a fire management plan that describes how prescribed fires and naturally caused wildland fires will achieve resource management objectives. (Sierra Nevada Forest Plan Amendment ROD 2004 Page 35)

Management Requirement List

Unit	Shape/FMU	Activated	Management Requirement
CASQF	GEN	05/09/2011	Use screening devices for water drafting pumps. (Fire suppression activities are exempt during initial attack.) (SNFPA ROD, 2004 RCO#4.110 PAge 64)
CASQF	GEN	05/09/2011	During fire suppression activities, consider impacts to aquatic- and riparian-dependent resources. Where possible, locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of RCAs or CARs. During pre-suppression planning, determine guidelines for suppression activities, including avoidance of potential adverse effects to aquatic- and riparian-dependent species as a goal. (SNFPA ROD, 2004 RCO#4.115 Page 65)
CASQF	RLS	08/22/2011	The Responsible Forest Service Line Officer for the Wildfire incident has the authority to approve: Any necessary timber cutting or removal or any road construction or road reconstruction in emergency situations involving wildfire suppression, search and rescue operations, or other imminent threats to public health and safety in inventoried roadless areas. In this context timber is the dominant/codominant overstory trees. (SECRETARY'S MEMORANDUM 1042-156 May 30, 2011 Authority to Approve Road Construction and Timber Harvesting In Certain Lands Administered by the Forest Service. Joel Holtrop June 10, 2011 Memo: Secretary's Re-delegation of Authority for Certain Activities in Inventoried Roadless Area)

1.7. Course of Action

Course of Action

Active	Inactive	Action Item
07/31/2017		Utilize full suppression strategies with direct and indirect attack methods to defend and protect structures, infrastructure and resource values at risk while limiting firefighter risk and exposure.

1.8. Cost

Estimated Final Cost

NAME	VALUE
Estimated Final Cost	\$5,000,000
Method(s) Used	Other

1.9. Rationale

The Garden Fire was discovered at approximately 16:39 on July 30th west of the China Garden Day use area.

Risk Assessment:

1. What are the critical values at risk?

Firefighter safety, community and cooperating agency relationships.

Democrat Fire Station, Breckenridge Lookout, Communication Towers, Breckenridge Campground, Breckenridge Estates, Highway 178, Kern River for commercial rafting trips.

2. What is the chance the critical values will be impacted, and if so what are the consequences?

Fire is in close proximity to Democrat Fire Station now. If current lines do not hold, Breckenridge infrastructure to the south could be threatened. Public pressure to open highway 178 to Bakersfield will grow in intensity the longer it is closed.

3. What are the opportunities to manage fire to meet land management objectives?

Very little. Fire is in volatile fuel model with high spread potential.

4. What are the possible low probability/high consequence events?

Aircraft incident, firefighter accident or weather event that would cause increased fire behavior that would drive fire towards Havilah to the east.

5. Who are the stakeholders that should be consulted prior to making a decision?

Cal trans, CHP, Kern County Sheriffs, Kern County Fire Department, SCE if fire threatens Breckenridge infrastructure. BLM if fire progresses to the east.

Risk Decision:

6. What alternatives (objectives, strategies, and tactics) are being considered?

Utilizing natural and man made barriers whenever possible. Using burning operations to enhance containment lines. Full suppression strategies being used.

7. What is the exposure of responders for the alternatives being considered?

Utilizing existing barriers would decrease line building exposure. Burning operations would help in keeping the black near firefighters.

8. What is the relative probability of success associated with the alternatives being considered?

Probability of success is high with current suppression strategy.

9. What alternative provides for the best balance between the desired outcome and exposure to responders?

A combination of direct and indirect line.

10. What are the critical thresholds that will trigger reconsideration of the proposed alternative and how will they be monitored?

If suppression strategies do not work, alternate methods will be reviewed and considered. Monitoring will be done by air and ground resources.