

Backbone Fire

Strategic Implementation Plan 2009

Fire Description: The fire started as the Trinity Fire on the Shasta Trinity National Forest and was joined by the LT-17 Fire from the Six Rivers National Forest on July 5th. The two fires became one and were assigned the name Backbone. This first draft of this strategy considered only those areas within the Shasta Trinity National Forest.

Fire Name: Backbone

Incident Number: CA SRF1181

Date and Time Prepared: July 8, 2009 1800

Jurisdiction: Six Rivers National Forest

Geographic Area: Operations Northern California

Unit:

Accounting Code: P5EOVS override 0510

Fire Situation: The Backbone fire is moving north and east into the Shasta Trinity National Forest and toward the Klamath National Forest. It is burning in the footprint of the old Megram Fire

Fire Start Date/Time 7/1/2009

Current Fire Size: 4,942 acres

Fuel Model: 13, 4

Cause: Lightning

Fuel Conditions

The fire is within the 1999 Megram burn area. It is located in mixed-conifer forest with high density snag patches and an understory of brush. The brush ranges from 2 to 8 feet tall and is intermixed with a high concentration of dead and down logs.

Hazards and Safety Concerns

Safety Concerns	Description
Unburned Fuel	During indirect line construction, unburned fuels will exist between the fire and the firefighters
Steep, difficult terrain	Travel in much of the area is difficult and extremely fatiguing to firefighters. Snags lofting embers, and rollout area common cause of fire movement.
Reduced visibility due to smoke	Inversions will cause smoke to impede aircraft visibility
Travel	Narrow, winding roads coupled with firefighter traffic and the public
Other fires in surrounding area	Other fires may cause additional smoke, additional aircraft traffic, and may alter strategy.

Resource Availability

The Northern California Geographic Area is in Preparedness Level 2. Resource drawdown is moderate. Initial Attack success is throughout the Region is likely. (July 7, 2009)

The northwest California area received multiple fire starts on July 1, 2009. All other fires on the Shasta-Trinity National Forest are contained at this time.

Current and Predicted Fire Weather and Fire Behavior

See attached Appendix A.

Decision Summary: To be completed by Line Officer.

Land and Resource Management Objectives:

Strategic Objective List

Unit/FMU	Strategic Objective	
CASHF/CUA	Implement wildfire suppression strategies to provide the least possible adverse impacts on cultural resource values.	LRMP page 4-51
CASHF/RRS	When fire management plans are completed and approved in conjunction with ecosystem analysis, some natural fires may be allowed to burn under prescribed conditions.	LRMP page 4-57
CASHF/RRS	Design.....fire suppression strategies, practices, and activities to meet Aquatic Conservation Strategy objectives, and to minimize disturbance of riparian ground cover and vegetation. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression.....activities could be damaging to long-term ecosystem function.	LRMP page 4-56
CASHF/RRS	In Riparian Reserves, the goal of wildfire suppression is to limit the size of all fires.	LRMP page 4-57
CASHF/WLD	Permit lightning caused fires to play, as nearly as possible, their natural ecological role within wilderness.	FSM 2324.21 EFFECTIVE 6/1/90
CASHF/WLD	Return fire to its natural role when not in conflict with public safety. Permit fire management activities that are compatible with wilderness	LRMP page 4-29

	objectives.	
CASHF/WLD	Trinity Alps Wilderness and Castle Crag Wilderness: Air quality is a primary consideration.	LRMP page 4-95, LRMP page 4-87
	Conduct all fire management activities within wilderness in a manner compatible with overall wilderness management objectives. Give preference to using methods and equipment that cause the least:	
CASHF/WLD	<ol style="list-style-type: none"> 1. Alteration of the wilderness landscape. 2. Disturbance of the land surface. 3. Disturbance to visitor solitude. 4. Reduction of visibility during periods of visitor use. 5. Adverse effect on other air quality related values. 	FSM 2324.23 EFFECTIVE 6/1/90
CASHF/WLD	Locate fire camps, helispots, and other temporary facilities or improvements outside of the wilderness boundary whenever feasible. Rehabilitate disturbed areas within wilderness to as natural an appearance as possible.	FSM 2324.23 EFFECTIVE 6/1/90
CASHF/WLD	Manage vegetation to retain the primeval character of the wilderness environment and to allow natural ecological processes to operate freely. Remove trees only under emergency conditions such as fire, or insect and disease control.	LRMP page 4-29

Incident Objective List

Incident Objective

Implement suppression tactics that provide the least impact to possible cultural resources.

Minimize disturbance of riparian ground cover and vegetation in riparian areas.

Locate incident logistical support outside of riparian areas when possible.

Implement strategies that support short and long term high air quality.

Implement strategies that favor the use natural barriers, topography or water courses and low impact techniques. After the fire is declared out, take appropriate action to rehabilitate and/or

restore the site.

Locate bases, staging areas and spike camps outside of wilderness when possible.

Firefighter and public safety is the first consideration for the duration of the fire, both on the fire and with all associated activities.

Incident Requirement List

Incident Requirement

If cultural resources are found, discontinue any activities that could be damaging and notify the District Ranger. A forest archeologist will be notified and further instructions provided.

Notify assigned Resource Advisor of any impacts to fish bearing streams and the New River. Notify Resource Advisor of retardant use that occurs in water courses, including location and quantity. No helicopter dipping from Mill Creek Lake or Water Dog Lake (to the northwest of the incident).

Return any logistical sites in wilderness to pre-use condition.

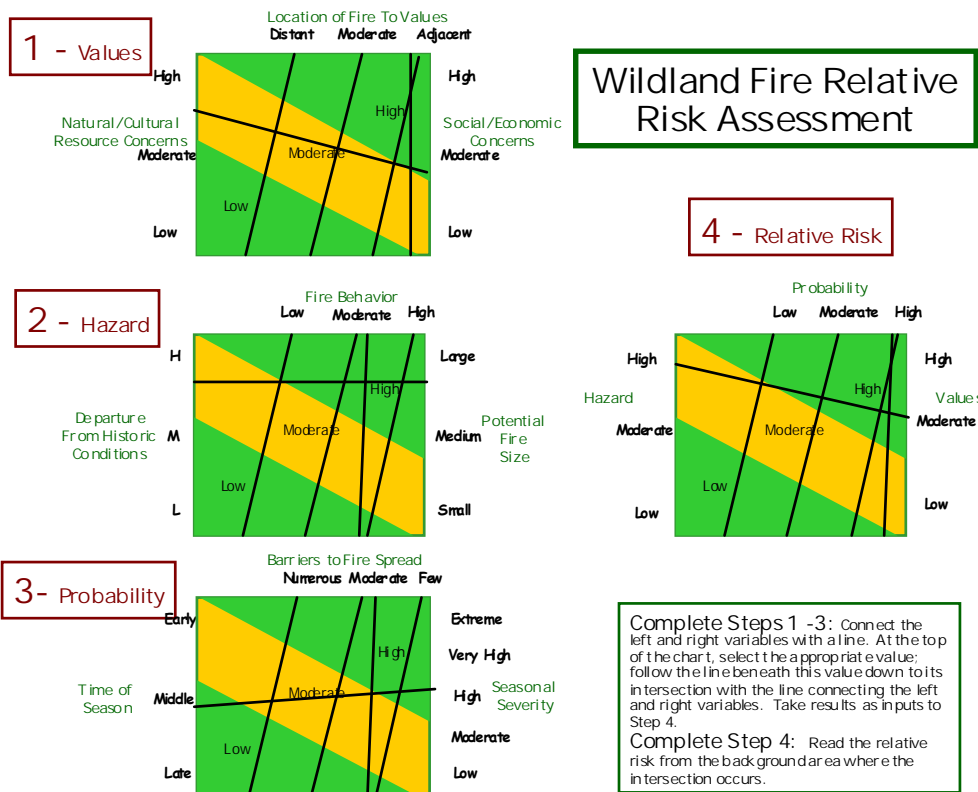
Relative Risk Assessment

Strategic Implementation Plan Needs Assessment Chart

Assumptions:

- Potential Fire Duration is long, based on past fires in the Trinity Alps.
- Current resource availability is between moderate and high based on current National preparedness level of 1 and Northern CA preparedness level of 2.
- Fire activity has been variable to active.
- Relative risk falls on the line between moderate and high

When these factors are plotted on the chart it shows a need for a **long-term implementation plan.**



Wildland Fire Relative Risk Assessment

Values:

- Natural/Cultural Resource Concerns – High - (Arch, Fisheries, Wilderness, Air Quality)
- Social/Economic Concerns – Moderate – (Denny, small amount of pvt. Land, no timber production lands)
- Location of fire to Values – Adjacent
- Value rating = moderate

Hazards:

- Fire Regime CC – 2.5, 10 year old burn area (Megram 1999)
- Potential Fire size – Large (current size app 5000 ac.)
- Fire behavior – moderate
- Hazards rating = High

Probability:

- Time of season – Middle (early July)
- Seasonal Severity – High – area in long term drought conditions
- Barriers to Fire Spread – Moderate (wet drainages and rocky ridges)
- Probability = High

Relative Risk plots as High

Planning Area

The planning area for this portion of the Backbone Fire is the Trinity Alps Wilderness and adjoining area within the Shasta-Trinity National Forest. The Lower Trinity T-17 Fire started on July 1, 2009 on the Six Rivers National Forest and grew into the west side of the Trinity Fire on the Shasta-Trinity National Forest on July 5, 2009. The Backbone Fire was approximately 3000 acres at the time that it reached the Trinity Fire at Six Rivers/Shasta-Trinity Boundary. The fires are now considered one fire and named the Backbone Fire. It is managed by the Six Rivers National Forest.

Decision Support Information: The models from the Wildland Decision Support System were the primary tools used for the basis of this plan. Calibration and more in-depth analysis should be considered as the summer continues. Fire Spread Probability (FSPro) was used for fire spread probabilities for key management action points and control lines. RAVAR (Rapid Assessment of Values at Risk) was used to identify values at risk.

Values at Risk for Trinity Fire Planning Area:

Priority	Probability of fire reaching with no suppression	Value to Protect (immediately threatened or at risk)	Consequence of damage or loss (dollars, loss time, on-site, down stream)
1	1 – 5%	Denny	Loss of structures
2	1 -5%	Gilta	Loss of structures
3	1 – 40%	Trinity River	Wild and Scenic
4	1 -5%	Klamath River	Wild and Scenic

Course of Action:

Four strategic options were identified for suppressing the Backbone Fire in the Shasta-Trinity National Forest. The scenarios considered for this planning are:

Option A	Direct Attack
Option B	Fawn Ridge/Megram Ridge
Option C	Fawn Ridge/Eagle Creek
Option D	Fawn Ridge/Mary Blaine Mountain

Actions and Assumptions:

Several assumptions for this planning area will be used while developing strategic options.

- Safety of the firefighters is paramount and direct attack will be used whenever viable.
- Much of the landscape throughout the planning area is steep, rugged terrain which is dangerous and fatiguing for firefighters. Efforts will be made to minimize exposure of firefighters to long term exposure to the extreme terrain.
- Minimum Impact Suppression Tactics will be used in all Congressionally Designated Areas (eg. Wilderness, Wild and Scenic Rivers, RARE II Roadless Areas, and specified land allocations).
- Aircraft use and cost have not been calculated in scenarios identified in Appendix B Strategy Options.

Management Action Points – appendix C and map attachment

Mitigation Actions – Strategy Options appendix C. This document was sent to Forest Specialists for their review, estimation of effects, and mitigation needs.

Resources Needed – appendix C

Reference Budget

Not analyzed yet (July 8, 2009)

Education and Information Plan

Plan for the possibility of a long-term wildland fire event and the communication needs and expectations required for this potential circumstance.

Prepared by: _____
Dale Shippelhouse Sacramento National Wildlife Refuge Complex

Date _____

Appendices

- A. Fire Weather and Fire Behavior
- B. Strategy Options
- C. Management Action Points

Appendix A

Current and Predicted Fire Weather and Fire Behavior

Fire Weather – Local weather thresholds that greatly increase fire behavior include 20 foot wind speed over 15 mph, relative humidity (RH) less than 25%, and Temperature greater than 90 degrees F.

Current and Forecast: Generated from National Weather Service Eureka, CA Spot Weather Forecast, and NOPS Predictive Services links.

	July 7	July 9	July 11	30 days	90 days
Temperature	72 - 80	66 -79	70 -83	normal	A little above normal
Relative Humidity	21 - 29	Not predicted	Not predicted	Not predicted	Not predicted
Wind Speed (20 foot)	5 – 8 (5	Not predicted	Not predicted	Not predicted
Wind Direction	NW	NW	Not predicted	Not predicted	Not predicted
Precipitation	Not predicted	Not predicted	Not predicted	normal	normal

Energy Release Component (ERC): ERC values for July 7, 2009 are at 64. The average ERC value is 51. The 90th percentile ERC is 70, and the maximum ERC value is 71.

Ignition Component (IC): The ignition component value is 46. The average IC is 37, the 97th percentile value is 54, and the maximum is 60.

30 Day Outlook

Weather: Little or no precipitation is forecasted for July. Temperatures for July are expected to be near normal to slightly above normal. July averages six days in which temperatures in Redding are 100 degrees or more. Hot and dry conditions should be expected in the fire area. The Keetch/Byrum Drought Index (KBDI) has assigned a Moderate Drought rating to this area.

Fire Danger: Current and expected fire danger rating is Moderate. Energy Release Component and Ignition Component values are above the average and below the 90th percentile conditions. ERC values are expected to increase as the summer progresses and 1000 hour fuels will continue to dry.

Fire Behavior

Live Fuels: The fire area has a large component of Snowbrush and logs. Live fuel moisture content on the Trinity River Management Unit was 135% on July 5th which is only 4% higher than the 5-year average. Expect current green brush and forbs at higher elevations to cure at a normal rate and will contribute more to fire activity by mid July or early August. The Snow Brush in the fire area should be coming off of its peak growth period for the year. Live fuels will be at their lowest fuel moisture content around August 1st and stay near the same level through dormancy. **Firefighters should take notice that live fuel moisture has dropped 50% points in the past month and is expected to quickly drop over the next 3 weeks and will reach its lowest level in September. Brush fields that will not burn today may burn much more readily with just a few days of drying.**

Dead Fuels: The 100-hour time lag fuels and smaller fuel classes are very dry and will continue to contribute to flame length, rate of spread, and spot fire potential.

The 1000 hour timelag fuels were at 43% in the July reading. This was the highest 1000 hour reading for July in the past five years. The rain fall in June likely contributed to the higher readings and we should see values go back to the normal seasonal conditions.

The Backbone fire grew more than 500 acres in one burn period on July 5th. Fire spread is generally surface fire and passive crown fire. Short duration crown fire was seen when wind and slope came into alignment. North slopes had a relatively slow backing fire in timber litter, brush, and downed logs. South and west facing slopes burned with higher rates of spread and intensity where slope or wind driven. The most problematic fire spread is the long range spotting from large snags in the active fire area. Snags greater than 70 feet tall are burning to the top and lofting embers for more than ¼ mile.

Expect fires to grow together where multiple ignitions are located in close proximity.

Appendix B

Backbone Fire Shasta Trinity National Forest Strategy Options July 7, 2009

The Trinity Fire Type-3 Management Team has identified four suppression strategy options for the Backbone Fire suppression activities within the Shasta Trinity National Forest. Three additional options were identified but not recommended for further evaluation. This outline is intended for Forest Resource Specialists use to determine potential affects of suppression actions and mitigation measures to consider. It should be used with the Backbone Fire Strategy Options Map July, 7, 2009.

A. Direct Attack Option:

a. Considerations:

- i. The east side of the fire perimeter would drop into Virgin Creek. Fires have traditionally been difficult to control in Virgin Creek with little probability of success.
- ii. Virgin Creek Trail provides access to the area but has a slide over the trail that would inhibit pack string use until rehabbed. One crew may be able to rehab the slide over the trail in one day, however the remainder of the trail still needs evaluation for opening. Once rehabbed, the trail would be accessible but not advisable as this is a very steep and narrow trail system for pack string use.
- iii. The Soldier Creek trail was burned on both sides of the trail on July 6, 2009 and has not been evaluated for accessibility.

b. Potential Actions:

- i. Continue using direct attack tactics from the Backbone Fire control lines. Direct handline with burnout operations to continue from Trinity Fire and extend north on the east flank of the Backbone Fire until all fire lines are tied in at the Shasta-Trinity/Six Rivers boundary.
- ii. Expect to use handline with 15 foot cut and 2 foot scrape using ridgelines, creeks, and other natural features as available.
- iii. Expect to use helicopters for bucket work and crew logistical support
- iv. Expect to use multiple helispots for crew support.

B. Megram Ridge Option:

- a. Considerations: This is a prominent north-to-south ridgeline that extends from Salmon Mountains Ridgeline south to Slide Creek. This would be a very labor intensive option with approximately 10 air miles of handline to construct and burnout. FSPRO modeling shows 80% to 100 % chance of fire reaching this ridge in the next 14 days.
- b. Potential Actions: Same as Option C Fawn Ridge i, ii, iii, iv, v,
 - i. Construct handline, helispots, snag removal, and burnout operations down the top of Megram Ridge.

C. Fawn Ridge/Eagle Creek Option:

- a. Considerations:
 - i. Fawn Ridge is in alignment with Slide Creek and Eagle Creek which may prevent large dog-legs in the control line. A control line on Fawn Ridge would help prevent fire from running south to the structures along New River.
 - ii. Eagle Creek and Slide Creek have been successful at holding prior fires. The Carey Fire (2008) and the Bake-Oven Fire (2006) would be stopping points to prevent fire from moving further east.
 - iii. Trail access for crew support is best with this option.
 - iv. A Contingency Line is identified south of Fawn Ridge that would use the same prescription as Fawn Ridge line construction and burnout operations.
- b. Potential Actions:
 - i. Handline Construction: Construct handline with 30 foot wide brush cut and 2 foot wide scrape. Limb latter fuels. Fall snags that could impede firefighter safety and control efforts. Fawn Ridge and Trinity Mountain Ridgeline.
 - ii. Helispot Construction: Construct up to three helispots on Fawn Ridge for crew support and potential medical evacuation sites. Evaluate Eagle Creek drainage for potential helispot sites for crew support.
 - iii. Burnout control lines: Hand and aerial ignitions should be expected throughout this segment. Aerial ignitions may be implemented in the interior of the burn to augment perimeter control, and to provide interior fuel breaks to prevent future high intensity runs with this fire.
 - iv. Helicopter bucket drops will be used to help control spot fires especially during burnout operations.
 - v. Air tanker use is expected to be limited. Air tanker use should be considered on Fawn Ridge or the unnamed ridge immediately south of Fawn Ridge if fire behavior makes these lines difficult to hold. Highest priority will be given to protecting the structures located ½ mile south of the contingency line.

- vi. Use MIST tactics to keep fire west of Eagle Creek. Consider using minimal line construction where needed. Consider using portable pumps for control and mopup.

D. Fawn Ridge/Mary Blaine Mountain Option:

- a. Considerations: If fire crosses Eagle Creek, it could be allowed to continue burning until it hits the Carey Fire (2008) perimeter where it will run out of burnable fuel.
- b. Potential Actions: Same Actions as Option C i,ii,iii,iv,v above.
 - i. Aerial monitor the fire as it progresses to Carey Fire (2008).
 - ii. Construct handline where necessary on Salmon Mountain ridgeline from the Shasta-Trinity/Six Rivers boundary and progress east to the Carey Fire (2008) at Mary Blaine Mountain.
 - iii. Burn out handline as needed on Salmon Mountain ridgeline from Shasta Trinity/Six Rivers boundary to Mary Blaine Mountain.
 - iv. Evaluate for spike camp locations and helispots along Salmon Mountains Ridgeline from Shasta-Trinity/Six Rivers boundary to Mary Blaine Mountain.

E. Options Identified but not recommended.

- a. Soldier Creek: Soldier Creek was identified but not recommended for further evaluation because it is steep, narrow, and has not held fires well in the past. The trail system would be usable for the most advanced packers only, and not recommended for crew support.
- b. North Fork Eagle Creek: North Fork Eagle Creek was identified as an option with the Fawn Ridge and Slide Creek segments of control line. It is not recommended for further evaluation because it does not have a trail system to support crew travel and logistical support.

Appendix C

Management Action Points

Description:

Management Action Points (MAP) are tactical decision points, either geographical points on the ground both inside and outside the planning area, specific points in time, or situations or events where an escalation or alteration of management actions is warranted in response to fire activity, proximity to identified threats, time of season, weather changes, or management decisions. The points are placed on maps that accompany the Strategic Implementation Plan. These points must be tied to identified values at risk in the plan. Each management action point will have one or more corresponding mitigation actions described which will need implementation when the fire reaches it or after a specified time period. This documentation stays with the fire through its management and is amended periodically as new management action points and mitigation actions are developed. As management personnel change over the life of a fire, this documentation provides continuity in direction needed when a fire approaches the management action point. When a MAP is reached and mitigation response is ineffective, then actions should be reevaluated.

Mitigation Actions

Risk can be mitigated or eliminated in three central ways: reduce the hazard, reduce the probability of the hazardous event occurring, and reduce the value of potential losses that could occur from the risk. The first two risk mitigation types are the most frequently utilized actions.

Mitigation actions are on-the-ground activities that serve to increase the defensibility of a particular point, area, or line, like a planning area boundary (to reduce the probability of the hazardous event occurring); to check, direct, or delay the spread of fire (reduce the hazard); and to minimize threats to life, property, and resources (reduce value of potential losses or impacts). Mitigation Actions serve to mitigate or eliminate identified threats and may include non-fire tasks (such as closures, evacuations, management actions to reduce impacts from smoke, etc.) and specific fire applications.

– Suppression Tactics

- Suppression methods e.g. minimum impact, heavy equipment, etc
- Structure protection responsibilities

– Contingency Actions

Resources Needed

Based on the Monitoring and Mitigation Actions, the Information Plan, and management oversight and qualifications needed to accomplish the objectives, resources needed to implement the plan and accomplish the objectives must be identified in this section. Resources identified here include those needed for the projected duration of operations

MAP 1

Values or Areas of Concern: MAP 1 is located at the point where the south control line of the Backbone Fire reaches the Shasta Trinity National Forest. Once the Backbone Fire is anchored on the south end of the fire and line is tied into the Shasta Trinity NF, then line construction can begin on Trinity Mountain ridgeline. Work cannot be safely implemented on this ridgeline until the Backbone Fire is anchored with completed line west of the Trinity Mountain ridgeline. This action could be completed while direct attack tactics continue toward the east on the southeast corner of the Backbone Fire.

Actions:

1a - Construct handline from MAP 1 on top of Trinity Mountain ridgeline south to H100. Base the line width on minimum width necessary for firefighter safety and controllability. Evaluate and construct helispots as necessary to support crew logistics and potential medivac sites. Remove snags as needed to enable control during burnout operations. Care should be given to limit green tree removal where possible.

Resources Needed:

1a - (4) Type-1 Handcrews, (2) Type-2 Handcrews, (2) Falling Teams with Falling Bosses. (1) Division Supervisor, 1 Safety Officer, (1) Camp Manager. Estimated time to complete saw cut, helispots and snagging is 4 days. Crews to be supported by (1) Type-3 helicopter.

MAP 2

Values or Areas of Concern: MAP 2 is located on an unnamed ridge extending from the eastern most portion of the Trinity Fire to the east where it meets the confluence of Soldier Creek and Virgin Creek. If the Backbone fire continues to spread south and east of MAP 2 without direct attack success, then indirect options (Strategy Option B, C, or D) should be considered.

Actions:

2a – Begin burnout operations as necessary on Trinity Mountain ridgeline from MAP 1 south to H-100. Estimated time to complete burnout operations is 2 days. Duration of burn could be longer if left to burn on its own terms. Consider aerial ignition operations for interior burning.

Resources Needed:

2a - (4) Type-1 Handcrews, (2) Type-2 Handcrews, (1) Division Supervisor, 1 Safety Officer, (1) Camp manager, (1) Type-2 Helicopter with bucket. (1) Aerial Ignition Burn Team.

Actions:

2b – Complete handline scrape from H-100 east on Fawn Ridge to Sun River. The cut line was initiated on this segment July 7th. Estimated time to complete is scrape is 2 days.

Resources Needed:

2b – (2) Type 1 Handcrews, (1) Strike Team Leader, (1) Type-3 helicopter for support.

Action 2c - Complete handline on the contingency line from Fawn Ridge south on an unnamed ridgeline in section 9, and then east on the ridgeline to New River near the Miller Ranch. Consider implementing a retardant line along the contingency line if smoke conditions and fire behavior threaten a successful burnout operation on Fawn Ridge.

Resources Needed

2c - (2) Type 1 Handcrews, (1) Strike team leader. (1) Air Tanker

MAP 3

Values or Areas of Concern: MAP 3 is located on an unnamed ridge extending from Fawn Butte east to the confluence of Six Mile Creek and Virgin Creek. If left unchecked, fire moving south and east of Fawn Butte could make runs up Fawn Creek drainage to the control line on top of the ridge between Fawn Butte and Fawn Ridge at H-100 or along Fawn Ridge.

Actions:

3a – Begin Burnout Operations on Trinity Mountain ridgeline from Fawn Butte south to Fawn Ridge and continue on the control line down Fawn Ridge until even with the lower most fire in Fawn Creek. Continue burning as necessary to complete line to New River.

Resources Needed:

3a - (4) Type-1 Handcrews, (2) Type-2 Handcrews, (1) Division Supervisor, 1 Safety Officer, (1) Camp manager, (1) helicopter with bucket.

Actions

3b – Review Structure Protection Plan and evaluate preparation needs around structures in the New River area along the 7N and 402 road systems.

Resources Needed:

3b – assign resources per the requirements in the structure protection plan.

Actions:

3c– Construct handline using MIST tactics on the top of the Salmon Mountains from Salmon Mountain east to Battle Creek Trail. Construct helispots as necessary to support crews.

Resources Needed:

3d – (4) Type 1 Handcrews, (1) Type-3 Helicopter for support, 1 Division Supervisor, 1 Camp Manager.

MAP 4

Values or Areas of Concern: MAP 4 is located on Fawn Ridge from the headwaters of Barron Creek east to the confluence of New River and Slide Creek. The concern is that Miller Ranch and surrounding structures are located at T7 N, 7W s17. Approximately 10 people live in the immediate area. Fire extending south of Fawn Ridge would threaten lives and property in the area of Miller Ranch

Actions:

4a – Implement structure protection plan, burn out the contingency line as necessary from Fawn Ridge south and east to Sun River.

4b – IC or delegate to initiate evacuation orders for the Miller Ranch area of Denny.

Resources Needed:

4a – Assign resources as recommended in the structure protection plan.

MAP 5

Values or Areas of Concern: MAP 5 is located along Virgin Creek from its confluence with New River, and extending north to Salmon Summit ridgeline at Salmon Summit Mine. The concern is that once fire crosses to the east side of Soldier Creek it will likely reach Eagle Creek within 7 days. Eagle Creek may take a four or five days to evaluate and prep for burning.

Actions:

5a - Prepare Eagle Creek for holding and burning as needed. Use MIST tactics to ensure Eagle Creek is an adequate control line to stop the fire from moving further east. Open the trail system to allow pack string access and use the trail for a control line where feasible.

5a - Resources Needed: (3) Type -1 Handcrews, (1) Division Supervisor, 1 packstring for support, (1) Camp Manager.

MAP 6

Values or Areas of Concern:

MAP 6 is located on an unnamed ridge extending from Eight Mile Creek to Virgin Creek approximately 1 ½ miles south of Salmon Summit at T9N R7W S28,29,30, 31. Fire extending north of this line would threaten to cross Salmon Summit and burn onto the Klamath National Forest. (The MAP 6 had a new start (or spot) north of its boundary after the preparation of the MAP). The Backbone Fire is managing this fire as a Division (July 8, 2009).

Actions:

6a - Construct handline from Devils Backbone Ridge on top of Salmon Mountain ridgeline east to Salmon Summit Mine. Base the line width on minimum width necessary

for firefighter safety and controllability. Evaluate and construct helispots as necessary to support crew logistics and potential medivac sites. Remove snags as needed to enable control during burnout operations. Care should be given to limit green tree removal where possible. Construct this action prior to fire reaching the MAP 7 if time possible.

Resources Needed:

6a - (1) Division Supervisor, (4) Type-1 Handcrews, (1) Camp Manager, (1) Type-2 Helicopter with bucket.

Actions

6b - Burnout line as needed to prevent fire from crossing Salmon Mountain. Consider aerial ignitions in conjunction with hand ignitions to control fire spread and ensure adequate blackline is established.

Resources Needed:

6b - (1) Division Supervisor, (4) Type-1 Handcrews, (1) Camp Manager, (1) Type-2 Helicopter with bucket, (1) Type-3 Helicopter with PSD, (1) Aerial Ignitions Team as needed.

MAP 7

Values or Areas of Concern: MAP 7 is located on an unnamed ridge extending from Meagram Ridge to Eagle Creek approximately 1 ½ miles south of Youngs Peak of the Salmon Mountains at T9N, R&W S25,26,27. Fire extending north of this line would threaten to cross Youngs Peak and burn onto the Klamath National Forest.

Actions:

7a - Construct handline from Salmon Summit Mine to Eagle Creek on Salmon Mountains if not already completed. Base the line width on minimum width necessary for firefighter safety and controllability. Evaluate and construct helispots as necessary to support crew logistics and potential medivac sites. Remove snags as needed to enable control during burnout operations. Care should be given to limit green tree removal where possible. Construct this action prior to fire reaching the MAP if possible.

7b - Burnout line as needed to prevent fire from crossing Salmon Mountain. Consider aerial ignitions in conjunction with hand ignitions to control fire spread and ensure adequate blackline is established.

Resources Needed:

7a - (1) Division Supervisor, (4) Type-1 Handcrews, (1) Camp Manager, (1) Type-3 Helicopter for support.

7b. - 1) Division Supervisor, (4) Type-1 Handcrews, (1) Camp Manager, (1) Type-2 Helicopter with bucket, (1) Type-3 Helicopter with PSD, (1) Burn Boss.

MAP 8

Values or Areas of Concern: One mile radius centered on the Old Denny Town Site: 8N 12W S18. If fire approaches the described MAP or it is anticipated to cross MAP

during any operational Period. Up to five people are believed to be living in the area. Notification of the fires potential should be made well in advance of the fire getting to the area.

Actions:

8a - If the fire reaches this MAP residences would be encouraged to evacuate the area.

Resources Needed

8b - (1) Packer to make contact prior to fire approaching the area, and will make a followup contact when fire reaches MAP 8.

Actions:

8b - Structure at Old Denny is a dilapidated foundational wood structure that should not require any more than some fuel removal for protection considering value at risk. It is not considered historical. Mines in area are mercury mines. Caution should be used of abandoned mines and heavy metal (red/orange rocks). Crews should remove fuel around building to prevent it from burning.

Resource Needs

8b - (1) squad of firefighters could complete fuel removal around structure in half day.

MAP 9

Values or Areas of Concern: Map 9 is located on an unnamed ridge that parallels the west side of Eagle Creek from Youngs Peak south to the confluence of Eagle Creek and North Fork Eagle Creek. The concern is that fire spread could cross Eagle Creek and burn toward the top of Potato Mountain.

Actions: Prepare to burn out Eagle Creek as necessary. Consider aerial ignitions to back fire down into Eagle Creek if needed. If fire behavior is low to moderate, managers should consider allowing fire to back into Eagle Creek with hand ignitions as necessary.

Resources Needed

9a - (2) Fire Use Modules, (1) Type-3 helicopter for support, (1) Type-2 Helicopter with bucket. (1) Type-3 Helicopter and an aerial ignitions burn team as needed.