WildCAD Incident Card - Bitterroot Dispatch Center: MT-BRF 2009-5112
"KOOTENAI CREEK" Wildfire 07/12/2009 17:37:00 Order Number: 5112
Area D1WILD (Stevi Wilderness)

Reporting Party: FS Employee Grothen

Initial Report On Conditions:
Gorthen driving to 5111 reported this one up the canyon. Willow MTN can see it.

Initial Location: up Kootenai drainage
Lat: 46°,33',9.01", Lon: 114°,14',7.07", T9N, R21W, Sec 11
Actual Location (07/21/2009 08:45): 46 33.15.5 x 114 14.12.8 (initial from Gaulrapp)
Lat: 46°,33',9.01", Lon: 114°,14',7.07", T9N, R21W, SENE Sec 10

Dispatcher: CLAIRMONT, CRAIG **Status:** Open
Job Codes: P1E2K3 (0103)
Web Comment:
Lightning caused fire 5 miles up the Kootenai Creek drainage, on the north side in the Selway-Bitterroot Wilderness. Fire is now at 5645 acres as of 9/27 and is being managed by a Type 3 organization.
Timer: Closed Timer for Resource
Incident Commander(s):
07/13/2009 1234 Crowe Effective 1230

Resource	Commit	Respond	On Scene	Avail Inc	Returning	Off Incident
N142MA	07/12 17:44					07/12 17:54
N526MW	08/26 16:07					09/03 13:06
BAT2-1	07/23 17:00		07/23 17:00			08/09 16:28
D3 IA CREW	07/24 07:00					07/26 19:00
WF IA CREW	07/24 07:00					07/26 19:00
GAULRAPP	07/12 17:44					07/12 17:55
ROHRBACH	07/12 17:44					07/12 17:55
ROWSELL	07/12 17:44					07/12 17:55
ALSUP	07/13 12:34				07/13 19:48	07/15 21:00
CROWE	07/13 12:33				07/13 19:48	07/13 20:00
HONEY	07/13 12:33				07/13 19:48	07/13 20:00
PETERSON	07/13 12:34				07/13 19:48	07/13 20:00

Entry Date/Time	From	To	Details
07/12/2009 17:45:14	42MA	KM	Smoke in sight in Kootenai Creek - will get size up in a minute
07/12/2009 18:11:08	42MA	KM	Size up - 46 33 15.5 x 114 14 12.8, running, , est. size 2 acres, timber, W exposure, 45%, lower 1/3, no roads, best access: rappel
07/12/2009 18:20:56	Buster	KM	Probably not safe to put people on the hillside - thinking of putting people at the bottom and working that east flank to catch rollers.
07/12/2009 18:36:26	42MA	Stevi	Contact w/Stevi with information about fire
07/12/2009 18:59:19	Taylor	KM	ICT4 + 6 headed to Stevi RD - Crowe/Peterson/Hanley/Alsup/Honey/Patterson/Fisk
07/12/2009 19:10:47	Taylor	KM	Darby folks ETA 45 minutes to station
07/12/2009 19:32:50	cc	CC	Fire info sheet sent to NAn
07/12/2009 19:33:47	42MA	KM	Off Stevi airport to fire, pilot + 2, 1.5 fuel
07/12/2009 19:49:03	42MA	KM/AFF	46 32 27 x 114 15 15
07/13/2009 12:32:53	Crowe	KM	Crowe + 7 to Kootenai Creek, IC: Crowe w/Peterson/Honey/Alsup & Lee Metcalf personnel (Pfau/King/Stevenson/Miller)
07/13/2009 12:36:06	Buster	KM	Crowe/Pfau & 6 additional will be going to fire - objective is to keep fire north of Kootenai Creek trail, and to keep an eye on the eastern flank - they will look at possibilities to keep spread to east in check (hoselay, bucket drops).

Entry Date/Time	From	To	Details
07/13/2009 12:55:20	Buster	KM	Hartless/Zinn are in the Sharrot Larson area - they have an eye on the fire, and may have to be used as a relay when Crowe & group get to the fire.
07/13/2009 13:26:22	Crowe	KM	Leaving trailhead, hiking into fire
07/13/2009 19:47:39	ic	BM	BACK THE TRAILHEAD TO GO TO D1. 50-60 ACRES
07/13/2009 19:48:14	HARTLESS	BM	AT D1
07/13/2009 20:22:17	Crowe	KM	All back at Stevi - Darby people headed back to station
07/13/2009 21:17:33	Peterson	KM	3 back at Darby
07/14/2009 17:16:40	Crowe	KM	Took a look at fire, no significant changes for today - headed back to station
07/15/2009 18:35:41	Crowe	KM	Plan for 7/16 - hike in with 5 people - would like 2 from Lee Metcalf (will confirm names 7/16 AM). Plan to hike @ 0900, and stay til Sunday morning. Could possibly request bucket drops if they see a need.
07/16/2009 10:30:06	hartless	BM	to overlook
07/16/2009 11:42:14	crowe	TL	Hiking to fire withMatt King, Rob Stenson from Lee Metcalf
07/16/2009 13:34:26	ic	BM	all at fire trail monitors in place and ty and grothen looking at fire
07/16/2009 16:50:12	IC	KM	No needs for the helicopter this evening - they will stay and observe til 2000 tonight & hike down to camp at that point.
07/16/2009 17:04:30	IC	Buster	Fire growing to SW corner, smoke/fire headed up the drainage to the NW, ground fire, cleaning up dead & downed fuels. RH's in the mid-30's.
07/16/2009 19:13:35	Hartless	KM	Back at station
07/16/2009 19:22:21	IC	KM	Placing order for 526MW for the AM - 1000 or 1100. Make sure he is aware of any special needs up there, and is briefed prior. Update on fire: grown a bit, is going up the east side, which is why they are asking for bucket work in the morning.
07/16/2009 19:51:39	IC	KM	Leaving lookout spot, hiking back to camp, ETA 45 minutes
07/16/2009 20:43:19	IC	KM	Back at camp, O/S for the evening, back on 0700
07/17/2009 07:08:24	IC	BM	I/S
07/17/2009 09:41:39	IC	BM	AT LOOKOUT POINT BUMP REQUEST FOR KMAX TILL 11
07/17/2009 11:25:47	IC	CC	Read Spot weather forecast: http://spot.nws.noaa.gov/cgi-bin/spot/spotfcst?site=mso&file=20090717.KOOTE.01
07/17/2009 12:34:06	IC	CC	Order for heli - yes, got infor on dips and falcons? i will check
07/17/2009 12:42:44	526MW	CC	Off Hamilton to Kootenai
07/17/2009 12:42:56	IC	CC	526MW headed your way
07/17/2009 13:07:00	ic	BM	6mw is on scene and will flight follow local
07/17/2009 13:20:34	MSO	BM	WILL GET WINDS 15 TO 20 WEST SUNDAY
07/17/2009 13:36:35	IC	BM	ASKING PROMOTION FOR NEW DIP SITE IN THE CREEK IN WILDERNESS AND 400 YARDS DOWN HILL OF THE FIRE APPROVED BY BUSTER W.
07/17/2009 14:54:30	IC	BM	REQUEST KMAX ONE MORE FUEL CYCLE
07/17/2009 15:34:44	IC	CC	526MW will be 25 minutes to fire
07/17/2009 15:51:25	526MW	CC	Ready to lift to Fire
07/17/2009 15:52:06	IC	CC	Kmax headed back
07/17/2009 16:06:56	IC	CC	526MW in contact and FF local
07/17/2009 17:50:18	26mw	CC	Back to 6s5
07/17/2009 18:03:32	MW	BM	ON THE GROUND HAMILTON
07/17/2009 18:15:08	IC	BM	ON LINE TILL 2000 THEN HIKE TO CAMP
07/17/2009 19:46:30	IC	BM	HEADED BACK TO CAMP FROM LOOKOUT SPOT 45 MIN IN ROUT TO CAMP
07/17/2009 20:39:11	IC	BM	BACK AT CAMP GOOD COMMUNICATIONS WITH WILLOW FOR THE NIGHT ON AT 0700 O/S
07/18/2009 06:58:43	IC	BM	I/S UP AND MOVING LOOKS LIKE BUCKET WORKED HELPED NOT AS MUTCH SMOKE TO DAY, MY NEED TYPE 1 TO DAY WILL NOT NOW FOR A FEW HOURS,
07/18/2009 09:04:37	ic	BM	called wanted a weather update for winds for sun day, my need 8mw today for east flank

Entry Date/Time	From	To	Details
07/18/2009 09:34:48	Brassfield	TL	Headed to Fire as Resource Advisor
07/18/2009 10:49:20	ic	CC	resource advisor made it to the fire (brassfeild)
07/18/2009 12:31:59	ic	CC	at look out point now, fire is still west of the ridge, request mw at 1500 today
07/18/2009 14:20:35	IC	BM	REC.ADVISOR BRASSFIELD IN ROUT BACK TO TRAIL HEAD CANCEL 68 MW
07/18/2009 15:10:19	IC	BM	COPY ED THE WEATHER
07/18/2009 15:35:14	IC	BM	ORDER 68MW CURBY COPY
07/18/2009 15:48:01	26MW	BM	SPOOLED AND HEADED TO FIRE IC COPY'S
07/18/2009 16:02:52	26MW	BM	IN CONTACT WITH CROW FF LOCAL
07/18/2009 17:13:08	IC	TL	REleased 526Mw back to Hamilton
07/18/2009 17:15:23	IC	TL	Will stay til 1900 then break camp and hike out tonight, ETA to trailhead 2100-2130
07/18/2009 18:33:11	ic	CC	Fires looking good. Fire going in right direction. Pulling out to camp.
07/18/2009 19:29:15	IC	CC	at camp, break down then head back to trailhead
07/18/2009 21:48:54	IC	CC	at the trailhead heading back in rig
07/18/2009 22:05:15	ic	CC	Back at D1. Request: Release FWP Engine PFau + 2 from Kootenai. Ty back at D2. Talk with Shrub for 7-19 plan
07/22/2009 13:24:16	IC	KM	Order 42MA for a cycle of bucket drops
07/22/2009 13:58:01	42MA	KM	Ready to lift, pilot + 3, 2 hrs fuel to fire
07/22/2009 13:59:09	KM	IC	42MA headed his way
07/22/2009 14:14:29	42MA	KM	Landed north of Kootenai TH, hooked up bucket, F/F local
07/22/2009 14:18:09	IC	KM	42MA on scene
07/22/2009 15:01:49	IC	KM	Requesting another cycle from 42MA
07/22/2009 15:08:01	KM	IC	Fuel truck will be bumping up north, they will work for another fuel cycle, then come back to do Ward Mtn mission
07/22/2009 17:14:10	IC	KM	Released 42MA
07/22/2009 20:05:22	IC	KM	At 1945, Ty was leaving the fire.
07/23/2009 11:37:58	IC	TL	Want to order both helis -- medium coming shortly, 42MA doing recon first
07/23/2009 12:23:22	IC	KM	F/F local with 468 - also check to see if the pond at the mouth of Kootenai is OK to use
07/23/2009 12:34:30	IC	KM	Have Buster call on his cell when he gets on the ground
07/23/2009 12:41:27	IC	KM	Check the availability of 42MA for bucket work - thinking about setting 468 down for IA, and using 42MA.
07/23/2009 12:47:31	KM	IC	42MA will be headed that way after they are done fueling - 468 is set down at Kootenai Creek HB, working on permission to dip out of the ponds.
07/23/2009 13:03:12	IC	KM	Wondering about 42MA - cancel if he has not headed out yet - too much fire to be effective.
07/23/2009 14:06:42	IC	KM	Going to try a different lake to dip out of with 468
07/23/2009 14:52:44	Lewis	TL	Sending 2 F&W folks to Kootenai Trailhead
07/23/2009 15:03:20	IC	KM	Requesting 42MA for a cycle
07/23/2009 15:25:54	42MA	TL	Setting down at Kootenai, put bucket on, ff locally
07/23/2009 15:38:25	Buster	KM	Requesting ICT3 to take over fire - preferably have in place this afternoon to tie in with current IC. Also would like a DIVS(T) type to handle operations side of things. Wondering about status of IHC.
07/23/2009 15:40:20	KM	Buster	Cary will take over as ICT3 - he will be up there sometime this afternoon/evening to tie in with Buster at the station. Still working on finding out availability of DeMoss for ops, and IHC will be home tomorrow sometime.
07/23/2009 15:51:53	IC	KM	468 on the ground, 42MA still working the fire
07/23/2009 17:27:40	IC	KM	Released 42MA & 468 - headed back to Hamilton shortly
07/23/2009 18:45:37	IC	KM	Headed off the hill in 15 - 30 minutes
07/23/2009 19:16:27	IC	TL	Back at rig, headed to stevi
07/23/2009 19:17:18	IC	TL	Would like Heli's first thing in AM
07/23/2009 19:59:10	IC	TL	at Stevi
07/24/2009 09:01:40	IC	TL	42MA headed to you
07/24/2009 09:11:11	42MA	TL	Landing at Kootenai Helibase
07/24/2009 09:21:21	42MA	TL	Off Helibase P+3 for recon

Entry Date/Time	From	To	Details
07/24/2009 14:32:11	IC	TL	Need to sling gear in to fire in an hour to 1 1/2 hours
07/24/2009 16:21:48	IC	TL	REquest Medium with bucket, contact Dale Pfau
07/24/2009 16:50:30	468	TL	With IC for FF
07/24/2009 16:52:06	468	KM	Departing Hamilton for Kootenai, pilot only, 1.5 fuel - @ 1637
07/24/2009 16:52:20	IC	KM	At 1640, copied 468 enroute
07/24/2009 16:52:52	IC	KM	At 1640, requests 42MA for bucket work (one cycle), then slingload mission
07/24/2009 17:03:06	42MA	TL	On ground at Kootenai HS hook up bucket
07/24/2009 19:21:44	68	CC	Monte: will return to 6S5
07/25/2009 10:08:15	IC	CC	Has a FFT2 w/ sprained ankle at Medivac site. Will need 2 sling loads of gas flown up and can do both missions then. Will call back when sling loads are
07/25/2009 10:48:14	ic	CC	REQ 468 T2 w/ bucket. MGR & Fuel truck heading up to staff dipsite. 30 ETA
07/25/2009 10:58:53	ic	CC	informed that 468 is 30 out.
07/25/2009 11:30:17	cc	iC	Spot weather updated > Pfau
07/25/2009 11:41:42	468	TL	in contact with Kootenai
07/25/2009 13:00:23	Taylor	CC	No need 4 42MA to pick up sprained ankle guy. Coming out on Mule, still need 2 sling loads
07/25/2009 13:01:13	42MA	CC	6s5 + 3 people / 1.5 hr fuel + fuel truck
07/25/2009 13:11:44	42MA	CC	at HB
07/25/2009 16:27:24	IC	CC	req 109 MA w/ tank. 468 is still working fire. will get 42MA coming back
07/26/2009 09:05:19	IC	TL	Need to push recon back due to new IA, 2 mediums are in Hamilton available
07/26/2009 09:53:19	IC	KM	Requesting both medium helicopters, contact on ground will be Pfau. Would like for 109MA to use the bucket instead of the tank today.
07/26/2009 10:14:56	468	TL	in contact with KC Helibase FF with them
07/30/2009 14:23:39	IC	TL	request 109MA for 1 cycle, spot east in av chute
07/30/2009 18:20:21	IC	BM	RELEASING 109MA BACK TO HAM.
07/30/2009 18:20:47	109	BM	9 MIN FLIGHT TIME 40 MIN FUEL
07/30/2009 18:44:21	IC	BM	IN ROUT HAM
07/30/2009 18:44:42	109MA	BM	ON THE GROUND HAMILTON
07/31/2009 17:03:25	IC	BM	OFF KOOT FIRE IN ROUT STEVI

Report by Team

Team Name: DISTRICT **Begin Date: 12-JUL-2009**

Incident Name: KOOTENAI FIRE

Incident Identifier: 2009-MTBRF-005112

Complex Number:

Management Type: IA-EA

Date Raised: 25-JUL-2009 **Time Raised: 13:19**

Concerns or Implements: Incident Objectives (site specific)

Precipitating Conditions: Firefighter Safety, Ecological Effects, Community and External Relations, Operational Efficiency/Effectiveness, Financial Efficiency/Effectiveness, Fire Behavior/Fire Activity, Values at Risk

Decision Scope: Incident Level

Decision Description: After careful consideration, the decision was made to keep the fire from crossing Kootenai Creek to the south; and try and keep it from moving east beyond a definite rocky ravine. Fire movement to the ridgetop north and to the west further into the wilderness would not be impeded. Spotting over the north ridge would be monitored for further movement into Bass Creek (not considered too likely) Movement to the west was no threat to values and would enhance wilderness values; although there is some possiblity that the fire could still hook into Bass Creek and later be an issue. In addition, a type 3 team would be assembled to develop a long term plan in the event the fire came across the ravine and out into the valley. Fire behavior analysis was also requested to assist with the long term plan.

Rationale: It is not possible or desireable to put this fire completely out, due to safety concerns to firefighters working on steep slope with rolling debris and underslung midslope line construction, and due to their ineffectiveness because of these same problems. Aerial water drops and retardant would merely shift the risk from ground crews to pilots and aircraft and would still not be effective. Heavy fuels from lack of

fire for probably 100 years on this site can not be put out by water drops. Because of the likelihood of this fire coming out into the valley and threatening high values, the long term plan would be developed to include contingencies for this event.

Positive Implications: Firefighter Safety
Public Safety
Ecological Effects
Internal Organizational Issues
Operational (resource) efficiency
Financial efficiency/effectiveness
Value at Risk
Incident Duration , Size
Complexity

Negative Implications:

Primary Lead: FFMO

Concurrences: AA FS

Outcomes and Learning

Action: Since the initial decision a type 3 Forest team has been assembled. The long term plan is about to be completed. The fire has backed to the trail to the south and crews are holding the fire at the trail with some success. The fire is still hung up in the ravine but has now increased in size to about 700 acres. A fairly significant public involvement plan was developed and has been successfully implemented to date with a well received public meeting last night. Smoke continues to be an issue. The contingency plan is being finalized. There has been some use of aerial water drops to assis the crews with holding the fire at the trail. There have been no significant wind events on the fire and the weather continues to be hot and dry. This fire still has good potential to cross the ravine to date.

Date Taken: 25-JUL-2009 Time Taken: 00:00

Consequences: To date the initial decisions have been effective. Firefighter and pilot/aircraft risk has been minimized the fire has not moved significantly south or east. A contingency plan is near completion. A type 3 team is in place ready to implement until complexity requires a

more experienced and capable team.

Incident Name: Kootenai Creek
Decision Published: 07/13/2009 16:28

Table of Contents

Decision

Decision Summary

Decision Information

NAME	VALUE
Published	07/13/2009 16:28
Estimated Cost	$100,000.00
Incident Owner(s)	Jacquie Parks
Editor(s)	Bruce Windhorst, Chuck oliver, Jacquie Parks
Reviewer(s)	Bruce Windhorst, Jacquie Parks
Approver(s)	Chuck oliver

Decision History

Editor Name	Action	Date	Comment
oliver, Chuck	Published	07/13/09 16:28	
oliver, Chuck	Approved	07/13/09 16:28	
Parks, Jacquie	Review Requested	07/13/09 16:25	
Parks, Jacquie	Created	07/13/09 13:28	

Assessment

Incident Information

Content

Incident Information

NAME	VALUE
Incident Name	Kootenai Creek
Latitude	46.5542 N
Longitude	114.2367 W
Geographic Area	Northern Rockies
Jurisdiction(s)	USFS
Unit Name	Bitterroot National Forest
Fire Number	2009-MTBRF-5112
Fire Code	P1EKS4
Incident Start	Jul 12, 2009 17:37
Contained	
Controlled	
Out	
Incident Cause	Natural
Nationally Significant	No
Incident Size	5.0 acres
Owner Name(s)	Jacquie Parks

Weather

Content

Fire Weather Zone Forecast

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FNUS55 KMSO 132052 CCA
FWFMSO

FIRE WEATHER PLANNING FORECAST FOR WRN MONTANA AND N CNTRL IDAHO...CORRECTED
NATIONAL WEATHER SERVICE MISSOULA MT
248 PM MDT MON JUL 13 2009

.DISCUSSION...A MOIST LOW PRESSURE SYSTEM WILL GRADUALLY SHIFT TO
THE EAST TUESDAY.  HIGH PRESSURE AND A MUCH WARMER AND DRYER AIR
MASS IS EXPECTED TO DEVELOP WEDNESDAY THROUGH SATURDAY.  SOME HIGH
LEVEL MOISTURE MAY SHIFT NORTHWARD INTO PORTIONS OF IDAHO AND
SOUTHWEST MONTANA LATE THIS WEEK.


IDZ102-103-MTZ109-142100-
PALOUSE/HELLS CANYON-CLEARWATER/NEZ PERCE-BITTERROOT-
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248 PM MDT MON JUL 13 2009 /148 PM PDT MON JUL 13 2009/

.TONIGHT...
SKY/WEATHER.....MOSTLY CLOUDY. CHANCE OF SHOWERS AND
                THUNDERSTORMS. CHANCE OF SHOWERS AFTER
                MIDNIGHT.
MIN TEMPERATURE.....40-50.
MAX HUMIDITY.....88-98 PERCENT.
20-FOOT WINDS.....
    LOWER ELEVATION.....NORTHWEST 5-15 MPH DECREASING TO VARIABLE
                        LESS THAN 5 MPH AFTER MIDNIGHT.
    RIDGE TOP.....WEST 5-15 MPH.
HAINES INDEX.....2 VERY LOW.
LAL.....3.
CWR (> 0.10 INCH)...40 PERCENT.

.TUESDAY...
SKY/WEATHER.....PARTLY CLOUDY. SLIGHT CHANCE OF SHOWERS. SLIGHT
    CHANCE THUNDERSTORMS...MAINLY MTZ109.
MAX TEMPERATURE.....75-85 VALLEYS AND 60-70 RIDGES.
MIN HUMIDITY.....21-31 PERCENT VALLEYS AND 33-43 PERCENT RIDGES.
20-FOOT WINDS.....
    LOWER ELEVATION.....VARIABLE LESS THAN 7 MPH.
    RIDGE TOP.....NORTHWEST 5-10 MPH.
HAINES INDEX.....3 VERY LOW.
LAL.....1...2 MTZ109.
CWR (> 0.10 INCH)...10 PERCENT.

.TUESDAY NIGHT...
SKY/WEATHER.....MOSTLY CLEAR.
MIN TEMPERATURE.....43-53.
MAX HUMIDITY.....74-84 PERCENT.
20-FOOT WINDS.....
    LOWER ELEVATION.....NORTHWEST 5-10 MPH IN THE EVENING BECOMING
                        DOWNSLOPE/DOWNVALLEY 2-5 MPH.
    RIDGE TOP.....WEST 5-10 MPH.
HAINES INDEX.....3 VERY LOW.
LAL.....1.
CWR (> 0.10 INCH)...0 PERCENT.

.WEDNESDAY...
SKY/WEATHER.....MOSTLY SUNNY.
MAX TEMPERATURE.....83-93 VALLEYS AND 70-80 RIDGES.
MIN HUMIDITY.....10-20 PERCENT VALLEYS AND 20-30 PERCENT RIDGES.
20-FOOT WINDS.....
    LOWER ELEVATION.....VARIABLE LESS THAN 7 MPH.
    RIDGE TOP.....WEST 5-15 MPH.
HAINES INDEX.....4 LOW.
LAL.....1.
CWR (> 0.10 INCH)...0 PERCENT.

.THURSDAY...MOSTLY CLEAR. LOWS 50-60. HIGHS 80-90. SOUTHWEST
WINDS 5-10 MPH.
.FRIDAY...MOSTLY CLEAR. LOWS 55-65. HIGHS 85-95. NORTHWEST WINDS
5-10 MPH.
.SATURDAY...MOSTLY CLEAR. LOWS 55-65. HIGHS 85-95. SOUTHWEST
WINDS 5-10 MPH.
.SUNDAY...PARTLY CLOUDY. SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 55-65. HIGHS 85-95.
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.MONDAY...PARTLY CLOUDY. SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 55-65. HIGHS 85-95.

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SHORT TERM...KITSMILLER
LONG TERM...BAUCK
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Content

Values Inventory Information

NAME	VALUE
Planning Area Name	Current
Incident Name	Kootenai Creek
Planning Area Size	32,540 acres

Category	Value	Data Source	Currency	Coverage
Building Clusters: Ravalli	3	US Counties / FGDC Cadastral Subcomm.		Available counties in AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY
Census Housing Values	$0	U.S. Census Bureau	01/01/2000	National
Class 1 Airsheds	21,267 acres	NPS Air Resources Division	Various	National
County: Ravalli	32,571 acres	Tele Atlas North America, Inc., ESRI	4/1/2008	National
Jurisdiction: Private	791 acres	Primarily BLM Land Status	01/01/2007	AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY
Jurisdiction: USFS	31,754 acres	Primarily BLM Land Status	01/01/2007	AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY
Jurisdiction: Water	26 acres	Primarily BLM Land Status	01/01/2007	AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY

Currency/Coverage of Values Queried that Produced No Results

Category	Data Source	Currency	Coverage
Major Roads	Tele Atlas North America, Inc., ESRI	11/01/2006	National
Electric Power Plants	HSIP	03/01/2008	National
Electric Sub Stations	HSIP	03/01/2008	National
Oil and Gas Pipelines	HSIP-PennWell MAPSearch	03/01/2007	National
Ozone Non-Attainment	EPA	Unknown	National
NPS Buildings	NPS		Participating NPS units
Particulates Non-Attainment	EPA	2009	National

Communication Towers	FCC	03/11/2009	National
Habitat: Mexican Spotted Owl	Gila National Forest	03/01/2008	Habitat restricted to Gila National Forest
Habitat: Southwestern Willow Flycatcher	Gila National Forest	03/01/2008	Habitat restricted to Gila National Forest
Habitat: Sage Grouse	BLM	07/15/2008	National
Electric Transmission Lines	HSIP	03/01/2008	National

Objectives

Content

Incident FMU List

Unit	FMU	Acres
MTBRF	FMU1_WUI	4691.1
MTBRF	FMU2_Roaded	2937.9
MTBRF	FMU3_Roadless	3793.2
MTBRF	FMU4_Wilderness	21087.9

Incident Objective List

Active	Inactive	Incident Objective
07/13/09		Protect all values at risk including private property, cultural sites and the climbers wall east toward Kootenai Trailhead. Keep the fire north of Kootenai Creek and South of the Bass/Kootenai Divide Ridge. Allow fire to play its natural role in designated wilderness to the west. Utilize natural barriers and aviation assets to limit fire spread to the east where values at risk exist.

Incident Requirement List

Active	Inactive	Incident Requirement
07/13/09		Have lakes pre-approved prior to dipping activities taking place (Resource Advisor). Provide for EMS protocols. Pre authorization for pumps/chainsaws in the wilderness must be obtained prior to use. Use MIMT on all management actions The forest will follow & coordinate smoke management with MT/ID Air Quality Bureau

07/13/09		Aviation flight path should try to stay south of Kootenai Creek (if safe to do so) and stay as far away as possible from the cliff north of the trail for the 1st half mile of the canyon to minimize impact to the Peregrine Eyrie sites which are active at this time.
07/13/09		Avoid bucket operations directly in Kootenai Creek as this is a Bull Trout Stream. If bucket operations are used, ensure the bucket is debris/weed free prior bucket operations occuring especially if using Lappi Lake or other high elevation lakes in the area.

Strategic Objective List

Unit/FMU	Active	Strategic Objective
		FMU1_WUI The following 4 strategic objectives are more or less common to all BRF FMU's: • Make the health and safety of firefighters and the public the highest priority at all times. • Protect identified natural and cultural resource values at risk. • Plan and conduct fire management activities that protect identified private/public resources. • Utilize fire to maintain and/or improve healthy, dynamic ecosystems that meet land management goals. **Incident specific objectives and requirements will be added based on the checklist located in J:\fsfiles\office\fire_response\WFDSS_2009**
MTBRF/FMU1_WUI	07/10/09	**From the 2009 BRF FMP:** **FMU1_WUI is the Forest urban interface area which includes areas where: (1) the threat to life and private property are extremely high; (2) adverse public reaction and pre-existing controversies/relationships are anticipated; and (3) resource values are extremely high. This FMU also includes private lands where the Forest Service has protection responsibilities. The risk of loss continues to escalate as settlement patterns increase along the interface. Much of the area within this FMU includes Forest Plan Management Areas (MA) 1, 2, and 3a, where timber management is emphasized.** For the majority of fires in FMU1, suppress those that have the potential to damage timber and/or property under current or predicted fire behavior and intensities. Under conditions where the objective of protecting timber and property values can be met, consider fire responses that will meet resource

		objectives. In all cases, firefighter and public safety will be provided for at all times. During multiple fire incidents, initial attack resources will be prioritized to this FMU before all others *in most cases*. There may be instances when potential threats to safety or values at risk will be greater from fires in other FMUs. Continue to plan and accomplish fuel reduction activities to alter fire behavior from that characterized by high-intensity and/or crown fire behavior to that characterized by low/moderate intensity surface fire behavior.
MTBRF/FMU2_Roaded	07/10/09	FMU2_Roaded The following 4 strategic objectives are more or less common to all BRF FMU's: • Make the health and safety of firefighters and the public the highest priority at all times. • Protect identified natural and cultural resource values at risk. • Plan and conduct fire management activities that protect identified private/public resources. • Utilize fire to maintain and/or improve healthy, dynamic ecosystems that meet land management goals. Incident specific objectives and requirements will be added based on the checklist located in J:\fsfiles\office\fire_response\WFDSS_2009 From the 2009 BRF FMP: This FMU includes: (1) high value, roaded forest lands; (2) improved recreation sites and facilities; and (3) other roaded active areas within the fire protection zone. As with FMU 1, much of this area includes Forest Plan Management Areas (MA) 1, 2, and 3a, where timber management is emphasized. For the majority of fires in FMU2, suppress those that have the potential to damage timber and/or property under current or predicted fire behavior and intensities. Under conditions where the objective of protecting timber and property values can be met, consider fire responses that will meet resource objectives. In all cases, firefighter and public safety will be provided for at all times. During multiple fire incidents, initial attack resources will be

		prioritized based on proximity to values at risk. **Continue to plan and accomplish fuel reduction activities to alter fire behavior from that characterized by high-intensity and/or crown fire behavior to that characterized by low/moderate intensity surface fire behavior.**
MTBRF/FMU3_Roadless	07/10/09	**FMU3_Roadless** The following 4 strategic objectives are more or less common to all BRF FMU's: • Make the health and safety of firefighters and the public the highest priority at all times. • Protect identified natural and cultural resource values at risk. • Plan and conduct fire management activities that protect identified private/public resources. • Utilize fire to maintain and/or improve healthy, dynamic ecosystems that meet land management goals. **Incident specific objectives and requirements will be added based on the checklist located in J:\fsfiles\office\fire_response\WFDSS_2009** **From the 2009 BRF FMP:** **This FMU includes: (1) all the non-wilderness roadless areas; and (2) the higher elevation areas with old, overmature timber stands which can support high intensity stand replacement fires during times of drought. These areas, for the most part, have no planned timber harvest.** **Routinely consider managing unplanned ignitions to meet resource and human value protection objectives. In all cases, firefighter and public safety will be provided for at all times. During multiple fire incidents, initial attack resources will be prioritized based on proximity to values at risk. There may be instances when potential threats to safety and values at risk will alter this prioritization.**
		FMU4_Wilderness The following 4 strategic objectives are more or less common to all BRF FMU's: • Make the health and safety of firefighters and the public the highest priority at all times. • Protect identified natural and cultural resource values at

MTBRF/FMU4_Wilderness	07/10/09	risk. • Plan and conduct fire management activities that protect identified private/public resources. • Utilize fire to maintain and/or improve healthy, dynamic ecosystems that meet land management goals. **Incident specific objectives and requirements will be added based on the checklist located in J:\fsfiles\office\fire_response\WFDSS_2009** **From the 2009 BRF FMP:** **This FMU includes the wilderness areas of the BRF.** **Unplanned ignitions in these areas will routinely be managed for resource and human value protection objectives using approved wildland fire use guides. In all cases, firefighter and public safety will be provided for at all times.** **For all ignitions, fire responses will use tactics and strategies compatible with wilderness values.** **During multiple fire incidents, initial attack resources will be prioritized in FMU 4 as the last priority, after all other FMUs, *in most cases*. There may be instances when potential threats to safety and values at risk will alter this prioritization.**

Management Requirement List

There are no Management Requirements.

Courses of Action

Content

Strategic Direction List

Active	Inactive	Strategic Direction
07/13/09		Follow the pre-planned response
07/13/09		Post signs at Kootenai Trailhead #53 advising public of fire situation.
07/13/09		Trail closure/area of #53 will occur if fire activity or aviation activity poses a safety risk to the public
		Limit eastern movement of fire by utilizing aviation resources to hang the fire up

07/13/09		by using an avalanche to the east.
07/13/09		Utilize crews, aviation resources and pumps,hoselays, handline and burnout operations to keep fire north of Kootenai Creek.
07/13/09		Develop an information network to local citizens, local officials through timely press releases and news updates.
07/13/09		Evaluate weather forecast and effect on fire behavior over the next 24 hours. Request a FS Pro Run if rain event does not materialize.
07/13/09		Develop and implement a plan by reconning down canyon to the east and look for opportunities to establish management actions point that limit fire spread to the east.

Validation

Content

Validation History

Date	User	Action	Comments
07/13/2009 00:55	Parks, Jacquie	Strategic Objectives Being Satisfied	
07/13/2009 09:54	Parks, Jacquie	Strategic Objectives Being Satisfied	
07/13/2009 14:28	Parks, Jacquie	Incident and Strategic Objectives Being Satisfied	The fire received rain as of 7/13/09 Smith Creek RAWS received .19 inches of rain in the last 24 hours. The fire is currently receiving rain. At the start of the fire the ERC was 44 and BI = 47. Ground crews are walking into the bottom of the fire to see if the initial plan to hang up the fire to the east in the avalanche chutes will work. Fuels will be evaluated to determine amount of rain and fuel moistures if there is enough there to

			hold the fire north of Kootenai Creek. Access to the fire is steep and dangerous so the decision to monitor the fire from the Kootenai Creek Trail is the best course of action at this time. Waiting for ICT4 Crowe to give feedback about actual conditions and other options that may better meet course(s) of action.

Rationale

Content

Terrain and inaccessilbity of the fire would adversely impact Firefighter and public safety.

Current location and size of fire in inaccessible terrain makes will limit direct attack on the fire perimeter with ground resources. Natural barriers to the east and MIMT tactics will allow us to check the fire spread and protect values at risk. Current fire behavior and weather conditions with rain/lightinin over the fire in the last 24 hours prohibit crews from working on the fire safely. Values at risk such as private land, climbers wall, Peregrine Falcon Eyrie site, pictographs at the entrance to the canyon and other scattered archeological sites in Kootenai Creek are of main concerns at this time.

Forest Service

Stevensville Ranger District

88 Main Street
Stevensville, MT 59870
406 777-5461

File Code: 5130
Route To:

Date: July 24, 2009

Subject: Delegation of Authority, Kootenai Creek Fire

To: Cary Taylor, Incident Commander, Kootenai Creek Fire

I welcome you and your team to the Kootenai Creek Fire and wish you a safe and successful assignment.

I hereby delegate the authority for the management of the Kootenai Creek Fire to you as the Incident Commander. This delegation carries the full responsibility for the management of all the assigned firefighting resources, aviation assets, equipment, costs and the rehabilitation of suppression impacts directly related to this wildfire as a result of your tactical actions.

You will assume command of the incident from Ty Crowe at 0800 July 24, 2009. It is paramount that close coordination with Bruce Windhorst, Stevensville District FMO, Brad Lord Stevensville Rural Fire Chief, private landowners in the vicinity of the fire and Dan Ritter, District Ranger.

I have listed the Leaders Intent as a separate attachment to facilitate making changes to items that need emphasis without having to change the Delegation of Authority.

Your primary Stevensville District contact will be Bruce Windhorst but I expect you to participate in the planning meetings and touch base with me on a regular basis.

I look forward to working with you and your team for the duration of your assignment, and expect us to be active partners with you in terms of any strategic discussions and/or adjustments.

DANIEL G. RITTER
District Ranger

Enclosure

Leaders Intent

I expect you to evaluate risk to firefighters and the effectiveness of all suppression actions.

I expect you and your team to take the lead in development of a long term plan.

I expect your team to provide accurate and timely information to the public.

Operational objectives:
-Keep fire north of Kootenai Creek
-Keep fire from moving east of the main avalanche chute

The Incident Business Advisor is Sheri Schlader and she will available to discuss and validate daily operational costs with you and your Finance Section Chief. Utilize the Incident Business Management Guide to assist with business management decisions.

The Resource Advisor is Bill Goslin and he will available to discuss and validate daily tactical operations with your Operation Section Chief.

Incident Objectives:

Ensure all actions reflect a commitment to firefighter and public safety through the development of tactical operations commensurate with values at risk, probability of success and the use of the least number and types of firefighting resources necessary to successfully accomplish the mission.

Be creative, decisive and exercise good judgment in decision making. Make reasonable and prudent decisions to accomplish the agency/agencies mission while minimizing exposure to hazards for the safety and welfare of all personnel on the fire and for the general public.

Coordinate any remaining tactical operations with assigned Resource Advisors. Establish all your tactical operations within the boundaries of the identified strategy, utilize existing road and trail systems, changes in vegetation, fuels, and weather, and natural barriers to minimize the suppression-related impacts on the natural and cultural resources and any other identified improvements that occur within the fire area.

Monitor cumulative fatigue, ensure all assigned firefighting personnel receive adequate rest, and any operational period in excess of 16 hours requires documentation and measures initiated to reduce fatigue.

Ensure prompt and accurate communications that fosters discussions and encourages interactions with the local cooperators and private landowners.

Minimum Impact Management Tactics (MIMT) will be used as much as possible to reduce suppression impacts. All questions concerning potential resource impacts related to strategic or tactical operation will be handled through the assigned Resource Advisor.

End State:

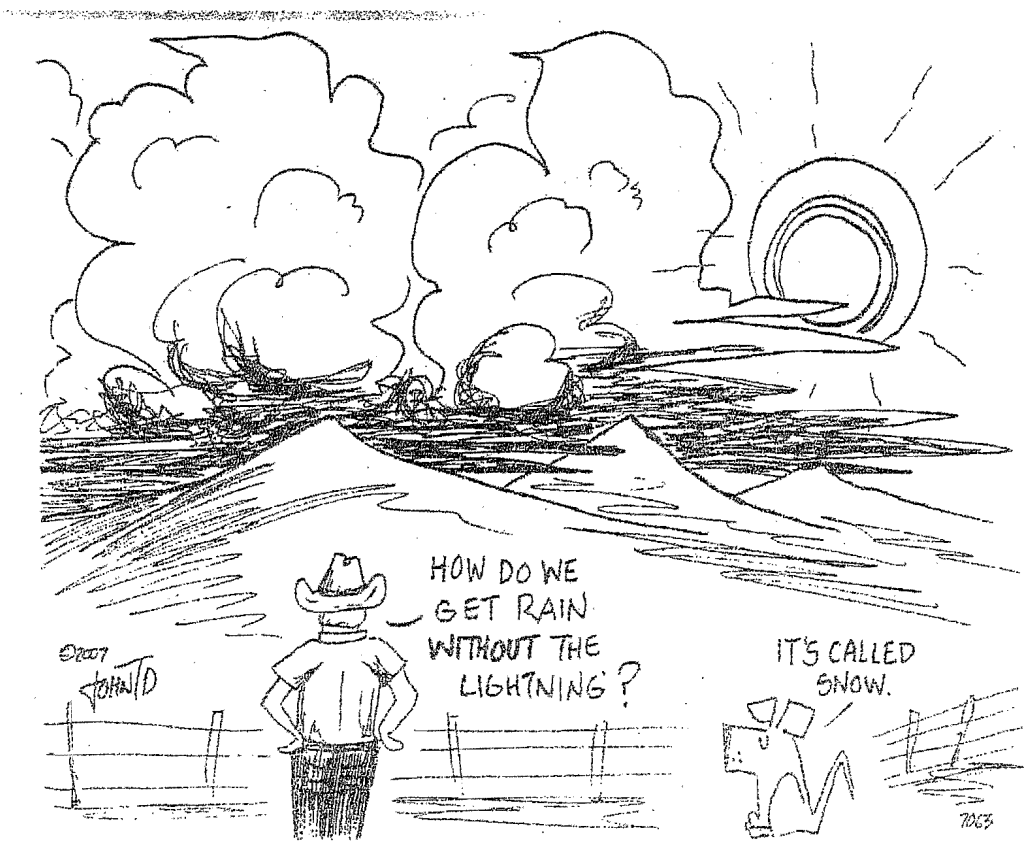
The Kootenai Creek Fire is safely, efficiently and mindfully managed until all of the incident objectives have been successfully obtained or a season ending event occurs. The fire is suppressed and identified values at risk were protected by using the appropriate resources to implement tactics in locations with reasonable probabilities for success. When the last incident management team leaves there have been no serious accidents or injuries, there will be favorable results to the land and natural resources, and we will have made a wise investment of taxpayer assets.

Kootenai Creek

Incident Action Plan

July 24 - July 26, 2009 (0700-2000)

Day Shift



ORGANIZATION ASSIGNMENT LIST	
1. Incident Name – Kootenai Creek	
2. Date 7/24/09	3. Time 0800
4. Operational Period 0700-2000	
5. Incident Commander and Staff	
Incident Commander (Type 3)	Cary Taylor
Safety Officer	TBA
Information Officer	Nan Christianson/Betsy Ballard
District Representatives	
6. Agency Representatives	
Agency	Name
MT-BRF (Cultural Resource/Outfitters Advisor)	Bill Goslin/Mary Williams
Line Officer Representative	Dan Ritter
7. Planning Section	
Chief	
Deputy	
Resources Unit	
Situation Unit	Jacquie M. Parks
Documentation Unit	
Demobilization Unit	
Technical Specialists	
Human Resources	
Training	
8. Logistics Section	
Chief	Cheri Hartless
Deputy	
Supply Unit	
Facilities Unit	
Ground Support Unit	
Communications Unit	
Medical Unit	
Security Unit	
Food Unit	

9. Operations Section		
Chief		
Deputy		
a. All - Divisions/Groups		
Branch Director		
Deputy		
Division/Group	Kootenai	Demoss, Doug
Division/Group	Kootenai	Pfau, Dale
Division/Group		
b.		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
c.		
Branch Director		
Deputy		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
Division/Group		
d. Air Operations Branch		
Helibase Manager	Hamilton Helibase	
Helicopter Manager		
Helicopter Crew		
10. Finance Section		
Deputy		
Time Unit	Nancy Trotter	
Procurement Unit		
Compensation/Claims Unit		
Cost Unit		
Prepared by (Resource Unit Leader) Jacquie M. Parks (7-23-09 1956pm)		

INCIDENT OBJECTIVES	1. Incident Name Kootenai Creek	Date July 23, 2009	3. Time 1956

4. Operational Period
0700-2000

5. Incident Objectives for the Incident (include alternatives)

1. Provide for firefighter safety public safety.
2. Protect all values at risk including private property, cultural resources sites and climbers at the climber's wall east toward Kootenai Creek Trailhead.
3. Keep the fire north of Kootenai Creek and South of the Bass/Kootenai Divide ridge through the strategic use of aviation support where appropriate and pumps, hoselays along Kootenai Creek as useful.
4. Allow fire to play its natural role in designated wilderness to the west. Utilize natural barriers and aviation resources to limit fire spread to the east where values at risk exist.

6. Weather Forecast for Period

See current attached weather forecast for Fire Wx Zone 109 (Request Spot Weather forecast once in the fire area)

7. General Safety Message

WATCH OUT for snags and rollers around the perimeter - Fuel Model 10 dense timber with no identified safety zones are a big watchout..

LACES must be in place before & during engagement of the fire.

Fire behavior at the time of start was crowning, spotting and running. Expect active fire behavior with growth with warmer/drier conditions. Chance of T'storms and gusty winds that will drive fire behavior.

Establish Operational Trigger Points: Temperature 85 degrees, Winds 5 mph eye-level and 20%... When any two of these are met, reassess the situation before continuing with operations.

8. Attachments (mark if attached)

	Organization List - ICS 203	X	Medical Plan - ICS 206	X	(Other) Safety Message
	Div. Assignment Lists - ICS 204	X	Incident Map	☐	
X	Communications Plan - ICS 205		Traffic Plan	☐	

9. Prepared by (Planning Section Chief)	10. Approved by (Incident Commander)
J. Parks	

DIVISION ASSIGNMENT LIST	1. Branch Kootenai	2. Division/Group
3. Incident Name Kootenai Creek Fire MT-BRF-5112 #P1E2K3	4. Operational Period Date: 7/24 – 7/26/09	Time: 0700-2000

5. Operations Personnel

Operations Chief		Safety Officer (SOF2)	
DIVS	Dale Pfau	DIVS	

6. Resources Assigned this Period

Strike Team/Task Force/ Resource Designator	Leader	Number Persons	Trans. Needed	Drop Off PT./Time	Pick Up PT./Time
IA Module – West Fork	Max Sage	10	N	0900 Kootenai TH	
IA Module - Sula	Scott Bogan	10	N	0900 Kootenai TH	
Lee Metcalf USFWS Engine #761	Dale Pfau	3	N	0900 Kootenai TH	

7. Control Operations

A lookout will be established on the 740 rd north of Sharrot Creek. Assess fire area to establish an anchor point from the east avalanche (SE most part of the fire) using hoselays/pumps and work west along Kootenai Creek to keep fire north of the trail. Monitor trail for hikers that may still be in the area & inform of area closure. Utilize helicopter bucket work to support keeping fire north of Kootenai Creek & line improvements/preparations. Establish a camp site to the east of the fire with assistance from Resource Advisor Goslin.

8. Special Instructions

RADIO

Make sound and timely decisions regarding needs for supplies and equipment for this incident (48 hour rule). After action reviews should be conducted after each operational shift to address safety concerns and make needed adjustments for the next operational period.

9. Division/Group Communication Summary

Function	Frequency	System	Channel	Function	Frequency	System	Channel
Command North ½ Narrow Band	169.625 RX 169.625 TX	Tone 146.2	2	Kootenai Fire A/G 1	171.1375 RX/TX	King NIFC	14 Narrow band
Tactical Div/Group BRF Ch #4 Narrow band	168.600 RX 168.600 TX		4			King NIFC	

Prepared by	Approved by	Date	Time
Jmparks		7/24/09	1956

DIVISION ASSIGNMENT LIST	1. Branch Brooks Face WUI	2. Division/Group
3. Incident Name Kootenai Creek Fire MT-BRF-5112 #P1E2K3	4. Operational Period Date: 7/24 - 7/26/09	Time: 0700-2000

5. Operations Personnel

Operations Chief		Safety Officer (SOF2)	
DIVS	Doug Demoss		

6. Resources Assigned this Period

Strike Team/Task Force/ Resource Designator	Leader	Number Persons	Trans. Needed	Drop Off PT./Time	Pick Up PT./Time
BAT 1-1	Doug Demoss	2	N	0830 Bass Creek Rd/Charles Waters	2000 Stevi RD

7. Control Operations

Recon the area Brooks Face areas starting from the Charles Waters/Bass Creek Road working south toward Kootenai Creek TH along private property. Assess for access, fuels type changes, burnout operations or mechanical preparation potential that may be successful for managing fire spread toward values at risk. Recommend types of equipment/access that may be needed to prepare private land boundary for fire management operations/burnout opportunities. Coordinate with FMO about possible options for access through private land.

8. Special Instructions

RADIO: Make sure you have good communications with Hamilton Dispatch and Stevi RD.

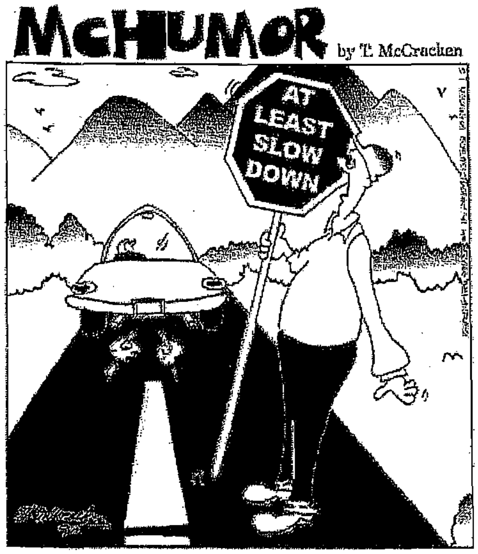
Make sound and timely decisions regarding needs for supplies and equipment for this incident. After action reviews should be conducted after each operational shift to address safety concerns and make needed adjustments for the next operational period.

9. Division/Group Communication Summary

Function	Frequency	System	Channel	Function	Frequency	System	Channel
Command North ½ Narrow Band	169.625 RX 169.625 TX	Tone 146.2	2	Kootenai Fire A/G 1	171.1375 RX/TX	King NIFC	16 Narrow band
Tactical Div/Group BRF Ch #4 Narrow band	168.600 RX 168.600 TX		4			King NIFC	

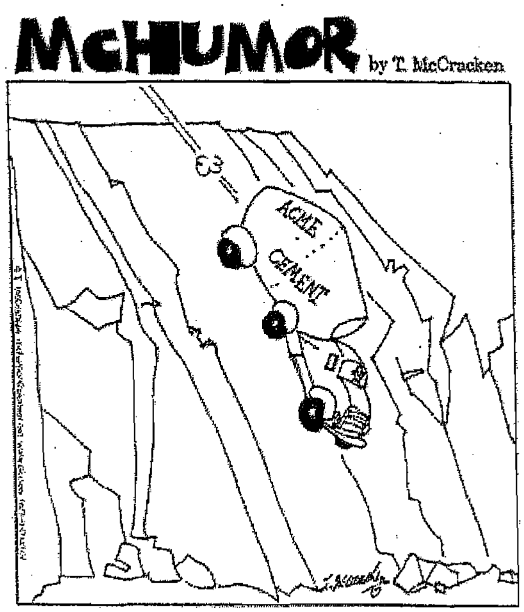
Prepared by	Approved by	Date	Time
jmparks		7/24/09	1956

Safety Is Your #1 Job Today



- Vehicle traffic and accident avoidance is the main concern.
- Drive with your lights on. Park your vehicles headed out. Know your escape route out.

- Caution when working along the Kootenai Creek Trail #53 road. One way in/one way out!!!
- Watch out for hikers that may still be in the area. Notify them of area closure.
- Keep a clean camp – watch for bears, wolves, moose.



Zero to sixty in two seconds.

FIRE BEHAVIOR FORECAST

FORECAST NUMBER: 1	TYPE OF FIRE: Wildland Fire
FIRE NAME: Kootenai Creek	OPERATIONAL PERIOD: 24-26 July 2009
DATE ISSUED: 23 July 2009	TIME ISSUED: 1900
UNIT: Bitterroot National Forest	SIGNED: Bart Hoag- FBAN

INPUTS

WEATHER SUMMARY: DISCUSSION

A slow moving low pressure system will be over western Montana today and tomorrow. This low will bring slightly cooler temps to the area as well as increased cloud cover. However, temps remain well above average. Winds will be variable to 7 mph, except in the vicinity of thunderstorms where gusty, erratic winds are possible.

FUELS:

The ERC for the Bitterroot SIG is 59 which well above average for this time of year. Fuels are variable with E. Spruce in the creek bottom and a mix of Douglas Fir and P. Pine further up the slope with lodgepole pine and subalpine fir in the higher elevations. Open areas contain sparse grass and avalanche chutes contain brush. Fuel moistures remain high in the brush and herbaceous materials. Grassy areas are curing and support fire spread. Timber stringers with heavy dead and down are also available to burn.

OUTPUTS

FIRE BEHAVIOR

GENERAL:

Expect continued active fire behavior over the next 3 operational periods. RH's will slightly higher and temps down slightly compared to the past few days but still above average for this time of year. Fire spread in timber will be primarily thru single and group tree torching with short range spotting, the exception to this will in the vicinity of thunder storm activity where moderate range spotting could occur, up to ½ mile. Expect little fire spread in the spruce creek bottom. Grassy areas will support moderate rates of spread especially up slope. The brush in the avalanche chutes are not expected to support fire spread at this time.

AIR OPERATIONS:

A moderate smoke inversion may limit morning air operations in Kootenai Creek canyon. Continued smoke production may limit air operations throughout the day on various portions of the fire depending on wind direction and speed.

SAFETY

Be heads up for any thunderstorm activity in the fire area gusty, erratic winds associated with thunderstorms can cause a rapid and unpredictable increase in fire spread rates and direction.

INCIDENT RADIO COMMUNICATIONS PLAN	1. Incident Name Kootenai Creek	2. Date/Time Prepared 7-23-09 1956	3. Operational Period Date/Time 7/24- 7/26/09 0700-2000

4. Basic Radio Channel Utilization

Radio Type/Cache	Channel	Function	Frequency/Tone		Assignment	Remarks
King NIFC	2	North 1/2	169.625 RX 169.625 TX	Tone 146.2	Forest Repeater	
King NIFC	4	Tac 3	168.600 RX 168.600 TX	Tone	Division All	
King NIFC	16	Air Ground	**171.1375 RX** **171.1375 TX**		Aviation Resources	**This is new assigned frequency for the Kootenai Fire!! Update your frequency – suggest channel 16**

5. Prepared by (Communications Unit)

AIR OPERATIONS SUMMARY | Prepared By: D.Bitterman | Prepared Date: *07/23/09* | Prepared Time: 1900

1. INCIDENT NAME:	2. OPS PERIOD DATE:	START TIME:	END TIME:	*SUNRISE:*	*SUNSET:*
Bitterroot National Forest Aerial Resources	*7/24/09*	0830	(COB)	*0609*	*2116*

3. REMARKS (Safety Notes, Hazards, Air Operations Special Equipment, etc.):
MTR 301/307 on South end of forest: Status today: ***unknown***
Watch for occasional (wk-end) skydivers at Hamilton Airport. Corvallis Fire heli N57AC at Corvallis Fire Hall. Airworks (old Garlick helicopters) site active with R/W activity.
R+R Conner helicopter working Middle East Fork, assume activity w/in 3 NM of Jennings.

4. READY ALERT AIRCRAFT:
#1- Bell-407 N142MA

5. TFR's:
No TFRs on Bitterroot at this time

(Adjacent TFR's): (None)

6. PERSONNEL	NAME	PHONE #
Aviation Officer	Dean Bitterman	406-370-7024
Helicopter Mgr.	John McKee Randy Gaulrapp	406-370-7028 406-381-7303
Dispatch	Tony Lubke Craig Clairmont Brett Malingo	406-363-7133
Aircraft desk	Kelly McKee	406-363-7198
	FAX	406-363-7131
IMT contacts----------	----------	----------

7. FREQUENCIES	AM	FM A-G
Initial Attack primary	132.725	170.750
Initial Attack Secondary	132.275	173.7875
Flight BRF-So.	Rx/Tx: 168.750 TT:131.8	
Follow BRF-No.	Rx/Tx: 169.625 TT: 146.2	
Air Guard	**FM Rx/Tx 168.625 TT:110.9**	
		168.625
Kootenai Fire	**122.225**	**171.1375**

8. Additional/Adjacent aircraft info:

FOREST AIR PATROL / ATTACK PLANES:
(air patrol N9667X active)

AIR ATTACK: available from Missoula and Grangeville

SMOKEJUMPER: Avail from MSO, G-ville.
TANKERS: Avail from MSO, W.Yellowstone, Helena, McCall

SEATS: Avail from Grangeville, Ronan, C-d'alene
HELICOPTER SUPPORT: **Type 3**: Avail. from: Ronan, G-ville, S--C. **Type 2:** Avail from:MSO, B--D. **Type 1**: Avail. from Libby

Job Codes: BRF-ABCD misc.: P1EKS4
Kootenai Fire: **P1E2K3**

9. HELICOPTERS and FIXED WING from Bitterroot forest

FAA N#/ A#	TY	MAKE/ MODEL	BASE	START	REMARKS
N142MA	3	Bell-407	Hamilton	0830	Excl. Use rappel/ I.A. (John McKee 406-370-7028
N58468	2 (R)	UH 1-H	Hamilton	0830	Working Kootenai Fire. Mgr: Monte Babcock 579-5028
N9667X	AT4/ 1	Cessna210	Hamilton	variable	Primary air Patrol

9.5 Additional Aircraft information

N #	TY	MAKE/ MODEL	BASE	START	REMARKS

Special Note: All tactical aircraft operations should end at official sunset. The ½ hour after sunset until official twilight should only be used for non-tactical aircraft operations (primarily: aircraft return to helibase or airport). Exceptions to this rule for critical operations are to be managed through a risk assessment by the on-scene ATGS/LEAD/HMGB with notification to dispatch prior to the operation.

AIRBASE INFORMATION:

NAME	LAT/LONG	ELEVATION/LENGTH	PHONE	FAX	NOTES
Hamilton Helibase	46 15.2' x 114 07.3'	3640'	406-363-4751	406-375-9480	
Hamilton SEAT Base	46 15.3' x 114 07.3'	3640' / length 4200'	--	--	Available for reload only
K-C Helibase	46 32.3' x 114 08.9'	3550' Access by N.Kootenai crk rd, E.entrance to ranch	(none)	(none)	Helibase for Kootenai Fire at Kootenai Canyon Ranch Owner:Floyd Nalls 777-2128
Darby Helibase	46 03.724' x 114 10.807'	3960'			Old Darby Rd and Gorus Ln
Sula Helibase	45 49.1' x 113 57.3'				Room for 1 helicopter
Lone Pine Helibase	45 48.8' x 114 16.2'	4860'	406-349-2260	406 349-2262	4 pads 349-2263
Marcus Daly Hospital	46 14.88' x 114 10.3'	3610'			HEAR freq.: 155.280

Land use agreements in place for K-C Helibase, Darby Helibase, Skalkaho Helispot, and Mac Helispot. Lost Trail Pass is FS owned. (See Aviation Briefing Booklet)

Missions: Specifics and aircraft assigned to be determined. Stay at least 2NM away from any border with adjacent forest or TFR boundary, unless coordination with aerial supervision or from Dispatch to Dispatch has occurred. Check hazards for area assigned.

Specific:

Kootenai Fire:

Missions: Recon and bucket work as requested. Sling supplies up to base of fire when available and resources are in place.

Hazards: No TFR in place. Advise dispatch if any private aircraft encroach upon the FTA. Watch for Lifeflight/Careflight helicopters transiting the valley between Missoula and Hamilton along the West side foothills.

1. Incident Name	2. Operational Period (Date / Time) From: To:	UNIT LOG ICS 214-OS
3. Unit Name / Designators	4. Unit Leader (Name and ICS Position)	

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS

7. Prepared by: Date / Time

Electronic version: NOAA 1.0 June 1, 2000

1. Incident Name	2. Operational Period (Date / Time) From: To:	UNIT LOG (CONT.) ICS 214-OS

6. Activity Log (Continuation Sheet)

TIME	MAJOR EVENTS

7. Prepared by:	Date / Time

Back to Main Page

Fire Weather Forecast for MTZ109

FNUS55 KMSO 241150
FWFMSO

FIRE WEATHER PLANNING FORECAST FOR WRN MONTANA AND N CNTRL IDAHO
NATIONAL WEATHER SERVICE MISSOULA MT
550 AM MDT FRI JUL 24 2009

.DISCUSSION...A LINE OF THUNDERSTORMS WILL PROGRESS THROUGH CENTRAL IDAHO AND WESTERN MONTANA THROUGH MID MORNING. AN UNSTABLE ATMOSPHERE WILL CONTINUE TODAY WHICH WILL SUPPORT THE POTENTIAL FOR MORE THUNDERSTORMS THIS AFTERNOON. A PACIFIC TROUGH OF LOW PRESSURE CURRENTLY OVER WASHINGTON WILL SLOWLY MOVE EAST TODAY PUSHING THE BEST THREAT OF THUNDERSTORMS A LITTLE FARTHER EAST AS WELL. LOCATIONS ALONG THE CONTINENTAL DIVIDE WILL HAVE THE BEST CHANCE OF THUNDERSTORMS THIS AFTERNOON. THUNDERSTORM ACTIVITY SHOULD NOT BE AS SIGNIFICANT AS YESTERDAY DUE TO SLIGHTLY COOLER AIR MOVING INTO PLACE. THIS COOLER AIR WILL ALSO LOWER HIGH TEMPERATURES AND RAISE MINIMUM RELATIVE HUMIDITIES.

MTZ106>109-251200-
WEST LOLO-SALISH AND KOOTENAI RESERVATION-EAST LOLO-BITTERROOT-
550 AM MDT FRI JUL 24 2009

.TODAY...
SKY/WEATHER.....MOSTLY CLOUDY. SCATTERED SHOWERS AND THUNDERSTORMS.
MAX TEMPERATURE.....85-90 VALLEYS AND 75-85 RIDGES.
MIN HUMIDITY.....15-25 PERCENT VALLEYS AND 24-34 PERCENT RIDGES.
20-FOOT WINDS.....
    LOWER ELEVATION.....BECOMING WEST 4-8 MPH IN THE AFTERNOON.
    RIDGE TOP.....EAST UP TO 5 MPH BECOMING WEST EARLY IN THE AFTERNOON...THEN BECOMING NORTHWEST 5-15 MPH LATE IN THE AFTERNOON.
HAINES INDEX.....4 LOW.
LAL.....4.
CWR (> 0.10 INCH)...20 PERCENT.

.TONIGHT...
SKY/WEATHER.....MOSTLY CLOUDY THEN BECOMING PARTLY CLOUDY. CHANCE OF SHOWERS AND THUNDERSTORMS. SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS AFTER MIDNIGHT.
MIN TEMPERATURE.....50-60.
MAX HUMIDITY.....71-81 PERCENT VALLEYS AND 56-66 PERCENT RIDGES.
20-FOOT WINDS.....
    LOWER ELEVATION.....NORTH 5-10 MPH UNTIL EARLY MORNING BECOMING DOWNSLOPE/DOWNVALLEY 2-5 MPH.
    RIDGE TOP.....NORTHEAST 5-15 MPH...THEN BECOMING SOUTH EARLY IN THE MORNING.
HAINES INDEX.....4 LOW.
LAL.....4.

CWR (> 0.10 INCH)...20 PERCENT.

.SATURDAY...
SKY/WEATHER.....MOSTLY CLOUDY. SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS.
MAX TEMPERATURE.....85-90 VALLEYS AND 75-80 RIDGES.
MIN HUMIDITY.....21-31 PERCENT.
20-FOOT WINDS.....
LOWER ELEVATION.....VARIABLE LESS THAN 7 MPH.
RIDGE TOP.....WEST 5-10 MPH.
HAINES INDEX.....3 VERY LOW.
LAL.....2.
CWR (> 0.10 INCH)...10 PERCENT.

.SUNDAY...MOSTLY CLOUDY WITH CHANCE OF SHOWERS AND THUNDERSTORMS.
LOWS 55-65. HIGHS 80-90. VARIABLE WINDS UP TO 10 MPH.
.MONDAY...PARTLY CLOUDY WITH SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 55-65. HIGHS 80-90. NORTHEAST WINDS 5-10 MPH.
.TUESDAY...PARTLY CLOUDY WITH SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 55-65. HIGHS 80-90. EAST WINDS 5-10 MPH.
.WEDNESDAY...PARTLY CLOUDY. SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 50-60. HIGHS 75-85.
.THURSDAY...MOSTLY CLEAR. SLIGHT CHANCE OF SHOWERS AND
THUNDERSTORMS. LOWS 50-60. HIGHS 75-85.

SHORT TERM...LOEFFELBEIN
LONG TERM...PALLISTER

Webmaster
US Dept of Commerce
National Oceanic and Atmospheric Administration
National Weather Service

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Career Opportunities

- Look at spots between Pointy Top + Square Top
- MAP 1 - Handline Bottom - Helo Suport Top 2.2 mi
- [redacted]
- Helispot / Medivac spot
- Creek to the East .58 mi E
- Pump show on the trail - 3 pumps, 2000ft & Sprinklers
- Creek to West. Enough water to Pump out of

- Brooks Creek @ Unknown
- Close Trail for Bucket Work
- Rocks coming Down / Hotter Days
- Not much Room to camp, 4-6 at most

GPS Locations

Eastern Most Point of Fire's Edge 7/13/09 1800
N 46° 32.957'
W 114° 13.855'

Bottom Most Edge of Fire 7/13/09
N 46° 33.134'
W 114° 14.128'

Possible Helispot & Good Camping Spot
N 46° 32.961'
W 114° 13.778'

Creek Runing North to South → East of Fire
N 46° 32.859'
W 114° 13.135'

Creek Runing North to Southwest to the West of Fire
N 46° 33.193'
W 114° 14.243'

Good Campsite
N 46° 32.596'
W 114° 12.082'

Incident Status Summary (ICS-209)

1: Date	2: Time	3: Initial / Update / Final	4: Incident Number	5: Incident Name
07/25/2009	1830	XX	MT-BRF-005112	Kootenai Creek

6: Incident Kind	7: Start Date Time	8: Cause	9: Incident Commander	10: Incident Command Organization	11: State-Unit
Wildfire (Monitor/Confine/Contain)	07/12/2009 1737	Lightning	Cary Taylor	Type 3 Team	MT-BRF

12: County	13: Latitude and Longitude	14: Short Location Description (in reference to nearest town):
Ravalli	Lat: 46° 33′ 9" Long: 114° 14′ 7" Ownership: MT-BRF	7 miles NW of Stevensville, MT

15: Size/Area Involved	16: % Contained or MMA	17: Expected Containment Date:	18: Line to Build	19: Estimated Costs to Date	20: Declared Controlled Date: Time:
780 ACRES					

21: Injuries this Reporting Period:	22: Injuries to Date:	23: Fatalities
1	1	

24: Structure Information

Type of Structure	# Threatened	# Damaged	# Destroyed
Residence			
Commercial Property			
Outbuilding/Other			

25: Threat to Human Life/Safety:
Evacuation(s) in progress ----
No evacuation(s) imminent --
Potential future threat --------
No likely threat ----------

26: Projected incident movement/spread 12, 24, 48, and 72 hour time frames:
12 hours: **Fire continues to move NE and NW.**
24 hours: **Fire continues to move NE and NW.**
48 hours: **Fire continues to move NE and NW.**
72 hours: **Fire continues to move NE and NW.**

27: Values at Risk: include communities, critical infrastructure, natural and cultural resources in 12, 24, 48 and 72 hour time frames:
12 hours:
24 hours:
48 hours:
72 hours:

28: Critical Resource Needs (amount, type, kind and number of operational periods () in priority order in 12, 24, 48, and 72 hour time frames):
12 hours:
24 hours:
48 hours: **1 - Type 1 Crew**
72 hours:

29: Major problems and concerns (control problems, social/political/economic concerns or impacts, etc.) Relate critical resources needs identified above to the Incident Action Plan.
Thunderstorms over the fire area late in the day with gusty winds have the SW corner of the fire actively moving back to the northwest and backing down to the Kootenai Creek Trail. Smoke managment, possible spotting to Bass & Brooks Creek drainages. Extremely hazardous terrain and narrow canyon. Avalanche chutes. The fire has reached Kootenai Creek. An area closure has been instituted as of 7-23-09 for the Kootenai drainage is still in place. A type 3 team is in place.

30: Observed Weather for Current Operational Period	31: Fuels/Materials Involved:
Peak Gusts (mph): 10 Max.	10 Timber (litter and understory)

Temperature: **86** Wind Direction: **ESE** Min. Relative Humidity: **20**	**Lodgepole, sub-alpine fir and Whitebark Pine. Avalanche Chute brush & timber litter.**

32: Today's observed fire behavior (leave blank for non-fire events):
Single and group tree torching. Short ranged spotting (less than 1/8 mile)

33: Significant events today (closures, evacuations, significant progress made, etc.):
1 minor injury (rolled ankle) - firefighter transported from the line via stock. Type 2 crew successfully used pumps/hoselays to secure fire activity to the SE chute to date and mopped up along the Kootenai Trail to prevent it from crossing Kootenai Creek.

34: Forecasted Weather for next Operational Period Wind Speed (mph): **5-15** Temperature: **80-90** Wind Direction: **NW** Relative Humidity: **29-39**	35: Estimated Control Date and Time:	36: Projected Final Size:	37: Estimated Final Cost:

38: Actions planned for next operational period:
Continue to use pumps/hoselays along Kootenai Creek to secure the SE/SW corners of the fire to natural barriers (avalanche chutes). Continue to use helicopters to support the pump show and to keep the fire west of the avalanche chute.

39: For fire incidents, describe resistance to control in terms of:

1. Growth Potential - **High**

2. Difficulty of Terrain - **Extreme**

40: Given the current constraints, when will the chosen management strategy succeed?

41: Projected demobilization start date:

42: Remarks:
The Type 2 Crew will continue spike out for 1 more day or until initial actions to secure the line on Kootenai Creek has been completed.

43: Committed Resources

Agency	CRW1		CRW2		HEL1	HEL2	HEL3	ENGS		DOZR		WTDR	OVHD	Camp Crews	Total Personnel
	SR	ST	SR	ST	SR	SR	SR	SR	ST	SR	ST	SR	SR		
USFS			1			2	1						9		28
ST													1		1
FWS								1							3
Total	0	0	1	0	0	2	1	1	0	0	0	0	10	0	32

44: Cooperating and Assisting Agencies Not Listed Above:
Collaborating with DEQ. RC&D is providing the Fire Wise trailer for information.

45: Prepared by: **Jacquie Parks**	46: Approved by: **Bruce Windhorst**	47: Sent to:**NRCC** by: Date: Time:

Incident Status Summary (ICS-209)

1: Date	2: Time	3: Initial | Update | Final	4: Incident Number	5: Incident Name
07/23/2009	**1753**	**XX**	**MT-BRF-005112**	**Kootenai Creek**

6: Incident Kind	7: Start Date Time	8: Cause	9: Incident Commander	10: Incident Command Organization	11: State-Unit
Wildfire (Monitor/Confine/Contain)	**07/12/2009 1737**	**Lightning**	**Ty Crowe**	**Type 4 IC**	**MT-BRF**

12: County	13: Latitude and Longitude	14: Short Location Description (in reference to nearest town):
Ravalli	Lat: **46° 33′ 9"** Long: **114° 14′ 7"** Ownership: **MT-BRF**	**7 miles NW of Stevensville, MT**

15: Size/Area Involved	16: % Contained or MMA	17: Expected Containment Date:	18: Line to Build	19: Estimated Costs to Date	20: Declared Controlled Date: Time:
604 ACRES					

21: Injuries this Reporting Period:	22: Injuries to Date:	23: Fatalities
0	**0**	

24: Structure Information

Type of Structure	# Threatened	# Damaged	# Destroyed
Residence			
Commercial Property			
Outbuilding/Other			

25: Threat to Human Life/Safety:
Evacuation(s) in progress ----
No evacuation(s) imminent --
Potential future threat --------
No likely threat ----------

26: Projected incident movement/spread 12, 24, 48, and 72 hour time frames:
12 hours: **Fire will continue to move NE and NW working throught rollout in the avalanche chutes**
24 hours: **Fire will continue to move NE and NW working throught rollout in the avalanche chutes**
48 hours: **Fire will continue to move NE and NW working throught rollout in the avalanche chutes**
72 hours: **Fire will continue to move NE and NW working throught rollout in the avalanche chutes**

27: Values at Risk: include communities, critical infrastructure, natural and cultural resources in 12, 24, 48 and 72 hour time frames:
12 hours: **None**
24 hours: **None**
48 hours: **None**
72 hours: **None**

28: Critical Resource Needs (amount, type, kind and number of operational periods () in priority order in 12, 24, 48, and 72 hour time frames):
12 hours:
24 hours: **ATGS**
48 hours: **Type 1 Crew (Bitterroot IHC if available)**
72 hours:

29: Major problems and concerns (control problems, social/political/economic concerns or impacts, etc.) Relate critical resources needs identified above to the Incident Action Plan.
Smoke managment, possible spotting to Bass & Brooks Creek drainages. Extremely hazardous terrain and narrow canyon. Avalanche chutes. The fire has backed within 200 feet of Kootenai Creek. An area closure has been instituted as of 7-23-09 for the Kootenai drainage.

30: Observed Weather for Current Operational Period Peak Gusts (mph): Max. Temperature: Wind Direction: Min. Relative Humidity:	31: Fuels/Materials Involved: **10 Timber (litter and understory) Lodgepole, sub-alpine fir and Whitebark Pine. Avalanche Chute brush & timber litter.**

32: Today's observed fire behavior (leave blank for non-fire events):
Group torching and short crown runs to the NE. Backing fire continues to the east and toward Kootenai Creek.

33: Significant events today (closures, evacuations, significant progress made, etc.):
Area closure instituted for Kootenai Drainage. Transfer of command in the next 24 hours to a Type 3 Organization.

34: Forecasted Weather for next Operational Period Wind Speed (mph): **85-90** Temperature: **13-23** Wind Direction: **SE/SW** Relative Humidity:	35: Estimated Control Date and Time:	36: Projected Final Size:	37: Estimated Final Cost:

38: Actions planned for next operational period:
Initiate pump operations at the heel of the fire above Kootenai Creek. Utilize bucket operations to re-enforce natural barriers to the east and the divide ridge between Kootenai/Bass Creek.

39: For fire incidents, describe resistance to control in terms of:

1. Growth Potential - **High**

2. Difficulty of Terrain - **Extreme**

40: Given the current constraints, when will the chosen management strategy succeed?

41: Projected demobilization start date:

42: Remarks:
Transfer of command to a type 3 team (IC Taylor) will occur on 7-24-09. A long term plan is being developed.

43: Committed Resources

Agency	CRW1		CRW2		HEL1	HEL2	HEL3	ENGS		DOZR		WTDR	OVHD	Camp Crews	Total Personnel
	SR	ST	SR	ST	SR	SR	SR	SR	ST	SR	ST	SR	SR		
USFS			1			1							8		28
ST													1		1
FWS								1							3
Total	0	0	1	0	0	1	0	1	0	0	0	0	9	0	32

44: Cooperating and Assisting Agencies Not Listed Above:
Collaborating with DEQ. RC&D is providing the Fire Wise trailer for information.

45: Prepared by: **Jacquie Parks**	46: Approved by: **Bruce Windhorst**	47: Sent to: **NRCC** by: **Tony Lubke** Date: **07/23/2009** Time: **1830**

Incident Status Summary (ICS-209)

1: Date	2: Time	3: Initial | Update | Final	4: Incident Number	5: Incident Name
22/2009	1826	| XX |	MT-BRF-005112	Kootenai Creek

6: Incident Kind	7: Start Date Time	8: Cause	9: Incident Commander	10: Incident Command Organization	11: State-Unit
Wildfire (Monitor/Confine/Contain)	07/12/2009 1737	Lightning	Ty Crowe	Type 4 IC	MT-BRF

12: County	13: Latitude and Longitude	14: Short Location Description (in reference to nearest town):
Ravalli	Lat: 46° 33′ 9" Long: 114° 14′ 7" Ownership: MT-BRF	7 miles NW of Stevensville, MT

15: Size/Area Involved	16: % Contained or MMA	17: Expected Containment Date:	18: Line to Build	19: Estimated Costs to Date	20: Declared Controlled Date: Time:
205 ACRES				$30,000	

21: Injuries this Reporting Period:	22: Injuries to Date:	23: Fatalities
0	0	

24: Structure Information

Type of Structure	# Threatened	# Damaged	# Destroyed
Residence			
Commercial Property			
Outbuilding/Other			

25: Threat to Human Life/Safety:
Evacuation(s) in progress ----
Evacuation(s) imminent --
Potential future threat --------
No likely threat ----------

26: Projected incident movement/spread 12, 24, 48, and 72 hour time frames:
12 hours: **Fire will continue to move NE and NW**
24 hours: **Fire will continue to move NE and NW**
48 hours: **Fire will continue to move NE and NW**
72 hours: **Fire will continue to move NE and NW**

27: Values at Risk: include communities, critical infrastructure, natural and cultural resources in 12, 24, 48 and 72 hour time frames:
12 hours:
24 hours:
48 hours:
72 hours:

28: Critical Resource Needs (amount, type, kind and number of operational periods () in priority order in 12, 24, 48, and 72 hour time frames):
12 hours:
24 hours:
48 hours:
72 hours:

29: Major problems and concerns (control problems, social/political/economic concerns or impacts, etc.) Relate all resources needs identified above to the Incident Action Plan.
Smoke managment, possible spotting to Bass & Brooks Creek drainages. Extremely hazardous terrain and narrow canyon. Avalanche chutes.

30: Observed Weather for

Current Operational Period Peak Gusts (mph): **10** Max. Temperature: **45-55** Wind Direction: **NE** Min. Relative Humidity: **54-64**	31: Fuels/Materials Involved: **10 Timber (litter and understory) Lodgepole, sub-alpine fir and Whitebark Pine. Avalanche Chute brush & timber litter.**

32: Today's observed fire behavior (leave blank for non-fire events):
Isolated group torching and small uphill runs to the NE and NW. The SE heel of the fire continues to back downslope towards Kootenai Crek. Winds were primarily out of the NE today.

33: Significant events today (closures, evacuations, significant progress made, etc.):
Bucket work was initiated on the SE heel of the fire to slow progress downslope to Kootenai Creek.

34: Forecasted Weather for next Operational Period Wind Speed (mph): **5-10** Temperature: **88-98** Wind Direction: **SW** Relative Humidity: **13-23**	35: Estimated Control Date and Time:	36: Projected Final Size:	37: Estimated Final Cost:

38: Actions planned for next operational period:
Continue bucket work down on the heel of the fire to check fire spread on the SE corner and NE corner to re-enforce the holding opportunity of the avalanche chute barrier to the east.

39: For fire incidents, describe resistance to control in terms of:

1. Growth Potential - **High**

2. Difficulty of Terrain - **Extreme**

40: Given the current constraints, when will the chosen management strategy succeed?

41: Projected demobilization start date:

42: Remarks:
Monitoring will continue. Bucket support will be utilized where efficient and effective. If fire crosses eastern avalanche chute (management action point 1), then a long term plan will be developed.

43: Committed Resources

Agency	CRW1		CRW2		HEL1	HEL2	HEL3	ENGS		DOZR		WTDR	OVHD	Camp Crews	Total Personnel
	SR	ST	SR	ST	SR	SR	SR	SR	ST	SR	ST	SR	SR		
USFS													7		7
ST													1		1
Total	0	0	0	0	0	0	0	0	0	0	0	0	8	0	8

44: Cooperating and Assisting Agencies Not Listed Above:
Collaborating with DEQ. RC&D is providing the Fire Wise trailer for information.

45: Prepared by: **Jacquie Parks**	46: Approved by: **Bruce Windhorst**	47: Sent to:**NRCC** by: Date: Time:

STRATEGIC IMPLEMENTATION PLAN / Response Level 3

Kootenai Creek Fire

BITTERROOT NF

July 26, 2009

Developed by: **Wildland Fire Decision Support Team**
Bruce Windhorst (FMO), Jacquie Parks (SOPL), Bart Hoag (FBAN), Amy Veirs (PLNS – t)
Phoenix NIMO Team – Jeff Whitney, Curtis Heaton, Mike Baca, Vicki Clay

Prepared by: Jacquie M. Parks 7/27/09
Jacquie Parks Date
Fire and Fuels Specialist - Bitterroot NF

Recommended by: 7/27/09
Bruce Windhorst Date
Fire Management Officer – Stevensville RD

Rick Floch 7/28/09
Rick Floch Date
Forest FMO – Bitterroot NF

Approved by: 7/27/09
Daniel G. Ritter **Date**
District Ranger Stevensville RD – Bitterroot NF

Executive Summary:

The Kootenai Fire is located within the Kootenai Creek drainage on the Stevensville Ranger District of the Bitterroot National Forest. Ignition occurred by lightning on July 12, 2009. The initial size up determined that the fire was high up on the north slope of Kootenai Creek in inaccessible steep terrain within the Selway-Bitterroot Wilderness with no safety zones proximal to the fire. Though the Kootenai Creek fire started in an area wherein managing fire for resource benefit is emphasized the likelihood that the fire would reach values at risk. The Forest Type 3 Organization is managing the fire at this time. If efforts are successful in the next 3 to 5 days, fire spread will be checked. Suppression efforts are currently focused on containing the East edge of the fire within a series of natural topographic features. Due to the potential duration of the fire, a Strategic Implementation Plan (SIP) has been developed in order to equip fire managers with a planned response to potential future fire spread. If the fire compromises any of the Management Action Points described in the SIP, an appropriate replacement team to manage the increased complexity may be ordered to transition with the Type 3 Organization.

A series of Decision Points where management action may be required have been identified. These Management Action Points (MAP) are based on the best available information at the time of this writing. In order for the SIP plan to be accurate and effective, periodic reassessments will be required.

This SIP factors in current available information and policy interpretations, as well as emerging approaches to Risk Management, strategic planning, application of emerging technology, and resource commitment. Updating will be dependant upon fire movement over the duration of the incident. Regular During Action Reviews will be conducted, on a reoccurring basis between the Agency Administrator, his staff and Incident personnel to assess effectiveness of the plan and the actions being employed.

Wildland Fire Decision Support System: Response Level 1-3

Fire Information

Fire Name	Kootenai Creek	
Location	Latitude: 46.339 Longitude: -114.147 County: Ravalli County, MT	Local Description: 7 miles NW of Stevensville, MT Access: From State Highway 93 west on FR 53 two miles to Kootenai Creek TH, take the Kootenai Creek trail and go west 3.5 miles to the fire.
Start Date/Time	Lightning storm 07/12/2009	
Discovery Date/Time	07/12/2009 @1737	
Containment Date/Time		

Control Date/Time	
Declared Out Date/Time	
Current Fire Size	727 ac (as of 7/24/2009)
Cause	Lightning
Administrative Unit	Bitterroot National Forest (Northern Rockies)
Involved Cooperators	Ravalli County, DNRC, Stevensville RFD, Florence RFD, with possibility of All–Valley RFD assistance
FMU	FMU 1 (WUI) 3.2.1 FMU 2 (Roaded) 3.2.2 FMU 3 (Roadless) 3.2.3 FMU 4 (Wilderness) 3.2.4

Relevant Forest-wide management goals and objectives from the Bitterroot LRMP include:

- Provide for the natural evolution of ecosystems within designated wilderness.
- Cooperate with State Air Quality Bureau to prevent significant deterioration of air quality.
- Protect significant cultural resources.
- Provide habitat to support viable populations of native and desirable non-native wildlife and fish.
- Maintain habitat for the possible recovery of threatened and endangered species.
- Maintain habitat to support viable populations of wildlife species.
- Convert high-risk or insect and disease infested stands to young, healthy stands.

Bitterroot National Forest FMU Objectives

3.2.2 FMU1_WUI

Forest urban interface area which includes areas where: (1) the threat to life and private property are extremely high; (2) adverse public reaction and pre-existing controversies/relationships are anticipated; and (3) resource values are extremely high. This FMU also includes private lands where the Forest Service has protection responsibilities. The risk of loss continues to escalate as settlement patterns increase along the interface. Much of the area within this FMU includes Forest Plan Management Areas (MA) 1, 2, and 3a, where timber management is emphasized.

During multiple fire incidents, initial attack resources will be prioritized to this FMU before all others *in most cases*. There may be instances when

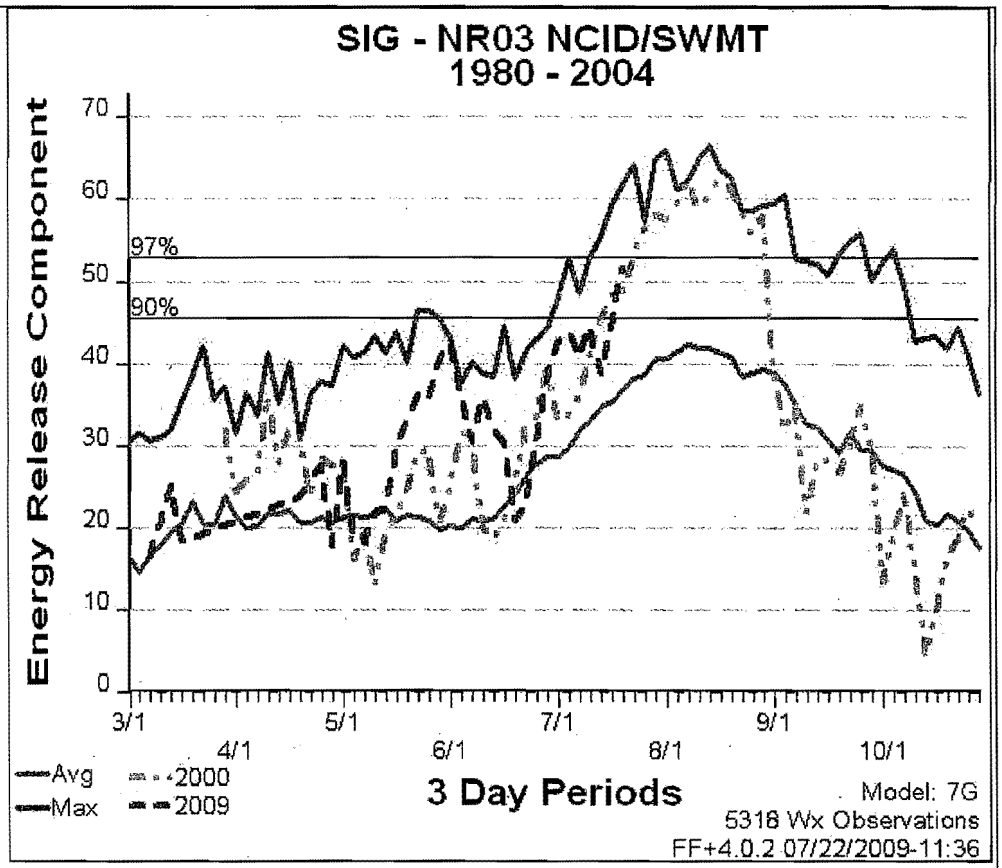
	potential threats to safety or values at risk will be greater from fires in other FMUs. Continue to plan and accomplish fuel reduction activities to alter fire behavior from that characterized by high-intensity and/or crown fire behavior to that characterized by low/moderate intensity surface fire behavior. **3.2.3 FMU2_Roaded** This FMU includes: (1) high value, roaded forest lands; (2) improved recreation sites and facilities; and (3) other roaded active areas within the fire protection zone. As with FMU 1, much of this area includes Forest Plan Management Areas (MA) 1, 2, and 3a, where timber management is emphasized. During multiple fire incidents, initial attack resources will be prioritized based on proximity to values at risk. Continue to plan and accomplish fuel reduction activities to alter fire behavior from that characterized by high-intensity and/or crown fire behavior to that characterized by low/moderate intensity surface fire behavior. **3.2.4 FMU3_Roadless** This FMU includes: (1) all the non-wilderness roadless areas; and (2) the higher elevation areas with old, overmature timber stands which can support high intensity stand replacement fires during times of drought. These areas, for the most part, have no planned timber harvest. **3.2.5 FMU4_ Wilderness** Guidelines established in approved wildland fire use guides will be followed to determine if a wildland fire event is to be managed for resource benefit. For human caused fires, the appropriate management response will be to suppress the fire using tactics and strategies compatible with wilderness values. In all cases, firefighter and public safety will be provided for at all times.
Fire Number	MT-BRF-2009 #005112
Management Code	P1E2K3 0103

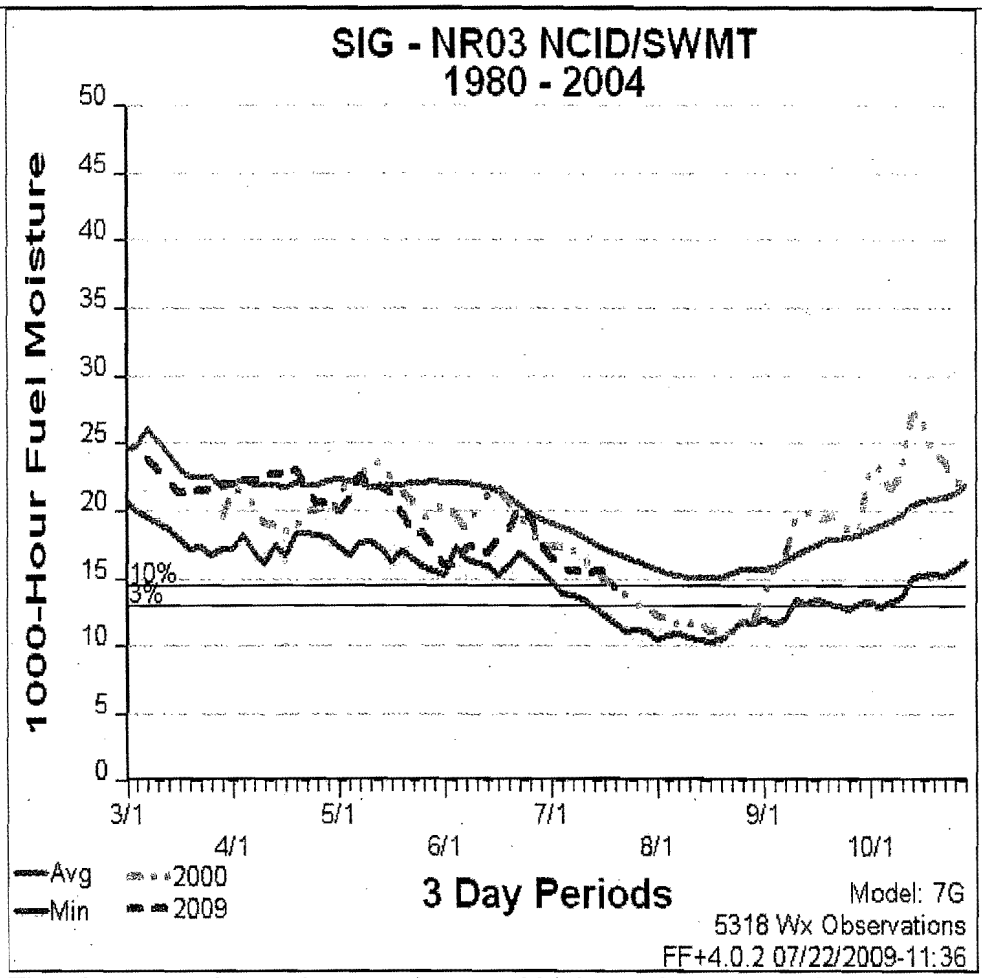
National Significance	No

Assessment:

Maps (Topography, Fuels, Aerial photos, Values, Administrative, etc.)	See Appendix A and Wildland Fire Decision Support System (WFDSS) for related maps. See Stevensville Ranger District for Management File containing related documents as well to the ftp site: ftp://ftp.nifc.gov/Incident_Specific_Data/Northern Rockies 2009/
Fire Weather Forecast (Include current fire weather forecast and fire weather forecast zone.)	**Forecast Office is Missoula, MT – Fire Weather Forecast Zone 109** For the most current fire weather forecast please refer to the following website: http://nimbo.wrh.noaa.gov/mso/ Missoula Wx

Current/Forecasted Fire Danger





The above graphs apply to north central Idaho and southwest Montana. The ERC graph indicates that seasonal conditions are well above average and approaching the 97th percentile. This is reflected in the Bitterroot N.F. Special Interest Group (SIG) as well. The lower graph indicates that 1000 hour fuels are dryer than average for this time of year and are at the 10th percentile. Both indices are tracking conditions that were experienced during the 2000 fire season.

ERC values will continue to increase and 1000 fuel moistures will decrease as the season progresses. Given the seven-day fire weather forecast, the change in these two indices will be relatively gradual.
Much of the brush and herbaceous material remains yet green for this time of year especially at the higher elevations. Seasonal curing will make these fuels available and will contribute greatly to potential fire spread. This curing will occur quickly and will have to be monitored closely.

Fuels (Fuel Models with description and transitions.)	There have not been any large fires in the recent past in the Kootenai Fire planning area, which has resulted in some areas containing a heavy dead and down component. Kootenai and Bass Creeks both contain Engelmann spruce and ponderosa pine as well as a heavy brush component in the very bottom. The south facing slope of Kootenai Creek is a mix of ponderosa pine, Douglas-fir with some open areas with light grass and small brush. The avalanche chutes contain brush, primarily alder, and

	herbaceous plants. The timber type transitions to lodgepole pine and then subalpine fir/whitebark pine on the Kootenai face as elevation increases. Some of these areas contain heavy loads of dead and down material. The timber on the lower portion of Brooks Creek face is primarily ponderosa pine, much of which has had some fuels treatment within the past 10-15 years. The ponderosa pine transitions to a Douglas-fir/lodgepole pine mix, about midslope and then to lodgepole pine. Much of the lodgepole pine contains heavy dead and down material, especially on the upper one third of the slope. Fuel models 8, 10, GS2 and TL4 were used for the RERAP modeling. The FS PRO model utilized the fuel layer in the Landfire Database. A heavy snowpack and late melting has lead to late curing of much of the brush and herbaceous material, particularly at higher elevations. As a result these fuels have not supported surface fire spread thus far.
Hazards and Safety Concerns	**Smoke Management/Air Quality** ▪ **Human Factors** -Repetitive functions on long duration incidents lead to inattention and fatigue, which can increase the opportunity for accidents. -Visiting resources may not be familiar with local terrain, weather conditions that may affect the safety of operational missions. ▪ **Operations/Safety Issues** -Snags are a safety issue when operating in previous/currently burned areas where management actions may be taking place. -There are safety zones in the fire area but all hazards must be mitigated before using them. The snag hazard should be mitigated before using. -There are safety zones in the fire areas, some of those safety zones are identified in old burn areas. These safety zones will require snag/hazard tree mitigation before use. ▪ **Travel** -The road into the fire area is slow and narrow and visitor vehicles can conflict with fire traffic and parking. -Outfitters and Guides, recreationalists, hunters should be notified of trail/area closures in a timely manner, and trails should be posted appropriately -The road leading to St. Mary's Lookout is one way in/one way out. Single lane roads and very few turnouts. ▪ **Environmental Factors** - The fire area has abundant wildlife, including black/brown bears, snakes, and other large mammals. All firefighters need to be informed on fire/snag safety and food protocols when camping out. - Favor actions that allow for well identified and posted escape routes, mapped and identified medivac opportunities, minimal exposure to steep rocky slopes and offer good anchor points and identify opportunities for burnout/holding. -Be aware of rolling material and debris near steep slopes.

	▪ **Aviation Operations** -Unnecessary aircraft missions should be avoided, to minimize risk, cost, and to minimize impact on wilderness values. Fire supervisors must constantly assess the necessity of missions, and avoid using aircraft "just because they are there". -Coordinate dipping and recon operations with Salmon & Bitterroot Dispatch centers. ▪ **Smoke Management/Air Quality** - Smoke modeling using the Smoke Impacts Spreadsheet (SIS) has been completed and the results indicate that this fire has the potential to impact residents and visitors should the fire continue to increase in size. -Frequent communication with the Regional Air Quality specialist is recommended. -Results of the SIS modeling is found in the Appendix B of this document. - Smoke from the fires may impact residents and visitors particularly at night where smoke tends to settle into the valley bottoms. -On-going communications with the Regional Air Quality specialist is required.
Resource Availability	National PL-2. Northern Rockies Geographic Area PL-2 No Geographic or Zone MAC groups are active. Currently there is very little fire activity in the geographic area and no resource shortages are anticipated in the near term. In the event the current Type 3 organization needs to fill, staff or support positions, resources should be available locally to meet that need.
Short-Term Fire Behavior Prediction	Continued hot and dry conditions will allow for active fire behavior throughout the forecast period. Sunday and Monday temperatures will remain high and RH's remain in the 20's. Cloud cover and a low Haines will moderate fire behavior to a limited extent. Fire behavior at mid slope and above will consist of single and group tree torching with short range spotting. Short crown runs are possible in areas of continuous timber cover. On the lower slopes, fire behavior will be the same as described above, as well as surface spread through open timber and grassy/brushy areas. Winds are forecasted to be diurnal, upslope/upcanyon during the day and down slope/down canyon at night. The only caveat is that there is a chance of wet thunderstorms each day during the forecast period. Thunderstorm generated winds could dramatically increase fire behavior. Conversely, wet thunderstorms could limit fire behavior and spread. As herbaceous and grass fuels cure, more favorable surface spread conditions are expected. Surface spread has been limited to lower slopes due to high live moistures at higher elevations. Winds are expected to be the key to any large fire growth especially as fall type cold fronts impact the fire area. This may allow extended crown fire runs where fuels, slope and wind align. Fire movement will continue laterally up canyon and down canyon along the slope. The fire will continue to back down to Kootenai Creek.

Short-Term Fire Behavior Observed	Fire spread at mid slope and above has been primarily through single and group tree torching with short range spotting. There have been some short crown runs on favorable slopes and aspects. On the lower slope, fire spread has also included backing surface fire in timber, open grass and brush. Group torching and short crown runs have occurred in the afternoons when conditions are favorable, generally dry bulb >85 degrees; Relative Humidity < 30%.
Medium Term Fire Simulation (RL2, RL3)	Rare Event Risk Assessment Process (RERAP) modeling shows that the fire is likely (80% probability) to reach the Brooks Creek face (MAP 3) prior to the season ending event. Once established on the Brooks Creek face RERAP modeling indicates that there is a better than average (65% probability) chance of the fire reaching an identified Value at Risk (private property) prior to the end of the season. RERAP information is included in the Fire Behavior Appendix.
Medium Term Fire Growth (RL2, RL3)	RERAP modeling, combined with persistence fire growth modeling, indicate that the Kootenai Creek fire is likely to reach private property and exhibit significant area growth before the season ending event.
Fire Spread Probability RL3	The 14-day Fire Spread Probability Spatial Model (FSPro) run of 7/22/08 shows that the Kootenai Creek fire has a >80% probability of reaching MAP 3. Additionally, it indicates a 20-40% probability that the fire would impact private property at the base of the Brooks Creek face during the projection period. The analysis should be re-run if the fire exceeds the current probability extent, reaches any MAP, or travels in an unanticipated direction. The run file is available in WFDSS and in the Fire Behavior Appendix.
Value Inventory	Public and Private Infrastructure: See attached Appendix C See also Value Inventory on Page 17 of this document.
RAVAR	The Rapid Assessment of Values at Risk (RAVAR) run of 7/22/09 indicates a 5-20% probability of the fire impacting 20+ identified major values at risk within the 14-day projection time. Based on the RAVAR run the fire has the potential to grow to 3,391 acres in >80% FSPro Zone and up to 10,618 acres in the 20-40% FSPro Zone.
Stratified Cost Index (SCI)	No requests have been made.
Air Quality	The Selway-Bitterroot Wilderness is a Class 1 attainment area where very little deterioration of air quality is allowed. All other areas on the Bitterroot National Forest are Class 2 where only moderate deterioration of air quality is allowed. Missoula is the closest non-attainment area that fails to meet national ambient air quality standards for particulate matter 10 microns in size and particulate matter 2.5 microns in size (PM10 and PM2.5) during some portion of the year, although all land management activities on the Bitterroot National Forest occur outside the non-attainment boundary. The greatest potential for the Forest to affect air quality would be from smoke (wildfires, prescribed fires, and campfires) and road dust. The USFS shall notify the Department of Environmental Quality and the Montana-Idaho Smoke Monitoring Unit of all wildfire events within 72 hours following completion of a Response Level 2 or Strategic Implementation Plan.

Objectives:

Strategic Objectives	**As identified in the Forest Fire Management Plan and Wildland Fire Decision Support System:** **FMU 1 (WUI) and FMU 2 (Roadless)** For the majority of fires in FMU1, suppress those that have the potential to damage timber and/or property under current or predicted fire behavior and intensities. Under conditions where the objective of protecting timber and property values can be met, consider fire responses that will meet resource objectives. In all cases, firefighter and public safety will be provided for at all times. • Make the health and safety of firefighters and the public the highest priority at all times. • Protect identified natural and cultural resource values at risk. • Plan and conduct fire management activities that protect identified private/public resources. • Utilize fire to maintain and/or improve healthy, dynamic ecosystems that meet land management goals.
Incident Objectives (RL3)	**As identified in the daily Incident Action Plan:** Ensure all actions reflect a commitment to firefighter and public safety through the development of tactical operations commensurate with values at risk, probability of success and the use of the least number and types of firefighting resources necessary to successfully accomplish the mission. Be creative, decisive and exercise good judgment in decision making. Make reasonable and prudent decisions to accomplish the agency/agencies mission while minimizing exposure to hazards for the safety and welfare of all personnel on the fire and the general public. Coordinate any remaining tactical operations with assigned Resource Advisors. Establish all your tactical operations within the boundaries of the identified strategy, utilize existing road and trail systems, changes in vegetation, fuels and weather and natural barriers to minimize the suppression-related impacts on the natural and cultural resources and any other identified improvements that occur within the fire area. Monitor cumulative fatigue, ensure all assigned firefighting personnel receive adequate rest, and any operational period in excess of 16 hours requires documentation and measure initiated to reduce fatique. Ensure prompt and accurate communications that fosters discussions and encourages interactions with the local cooperators and private landowners. Minimum Impact Management Techniques (MIMT) will be used as much as

	possible to reduce suppression impacts. All questions concerning potential resource impacts related to strategic or tactical operation will be handled through the assigned Resource Advisor. **Operational Objectives (7/24/2009)** • Keep fire north of Kootenai Creek • Keep fire from moving east of the main avalanche chute
Management Requirements (RL 1, 2 & 3)	Have lakes pre-approved prior to dipping activities taking place (Resource Advisor). Provide for Environmental Management System (EMS) protocols. Follow & coordinate smoke management with MT/ID Air Quality Bureau Aviation flight paths should try to stay south of Kootenai Creek (if safe to do so) and stay as far away as possible from the cliff north of the trail for the 1st half mile of the canyon to minimize impact to the Peregrine Eyrie sites which are active at this time. To avoid impacting bull trout, bucket dips should not occur in Kootenai Creek downstream of the Wilderness boundary. Ensure the bucket is debris/weed free prior to operations occurring, especially if using Lappi Lake or other high elevation lakes in the area. Track wilderness intrusions/landing into wilderness areas and keep on file for reporting INFRA coordinator/Resource Advisor. Obtain permission from District Ranger/Forest Supervisor prior to using chainsaws or other mechanized/mechanical equipment in the wilderness. Tactical actions should incorporate MIMT guidelines/tactics and selected tactics should minimize long term impacts to the wilderness resource when safe and appropriate. Ensure costs are commensurate with values at risk. Hunting season starts September 15 (Montana). Reassess trail/area closures based on fire behavior.

Course of Action

Preplanned Response	The Kootenai Creek fire lies within the Selway-Bitterroot Wilderness. Preplanned response considerations for the Kootenai Creek fire include proximity to private land, Energy Release Component (ERC) above 90th percentile, and time of season (early in the fire season), as documented by the Wildland Fire Decision Criteria Checklist. Because the fire was likely to threaten private property, the District Ranger made the decision that suppression was the appropriate management response.
Planned Response (RL 2 and 3)	Though the Kootenai Creek fire started in an area wherein managing fire for resource benefit is emphasized the likelihood that the fire would reach values at risk.
Planning Area (RL2 and 3)	The Kootenai Creek Fire planning area is approximately 35,150 acres and encompasses both the Kootenai and Bass Creek watersheds.
Management Action Points (RL2 and 3)	See attached chart. Management Action Points (MAPs) are spatial, temporal or environmental. When these management actions point are reached, some type of decision or tactical action is initiated. See table below for incident specific MAPs.
Resources Needed to Manage the Fire (RL2 and 3)	The Kootenai Fire organization will increase/decrease in capability based on fire complexity analysis according to the needs and threats by the fire during the duration of the incident. The current organization is as follows: ▪ ICT3 (and miscellaneous overhead), 20 FFT2's, 1 Type 3 Helicopter (as needed) ▪ LTAN/FBAN/TSHP support as needed.
Estimated Costs (RL2 and 3)	Estimated costs as of 07/25/2009 are $88,000. Costs are being tracked in I-Suite. Estimated costs by MAP are listed in table below.
Reference Budget (RL3)	N/A
Stratified Cost Index (SCI)	Not requested from WFDSS.
Historic	N/A
Calculated	N/A
Contingency Actions (RL3)	Triggers for considering a higher level organization include repeated accidents or major injuries, major threat to developed area structures, aircraft accidents, inability of present organization to protect values at risk, failure to follow management intent, long term road closures or local economic disruption, etc. If the fire threatens or crosses any of the MAPs, reassess the complexity analysis.

Management Actions (see associated Management Action Point map)
All actions must consider current and expected fire behavior

Management Action Points (MAPs)	Implementation Criteria	Management Intent	Resources Recommended	Estimated cost	Recommended Tactical Actions	Notes:
MAP 1 Kootenai Creek	Fire becomes established on the south side of Kootenai Creek. The fire has the potential to move further east and/or south.	• Keep fire within the National Forest Boundary • Fire spread to the south and/or east results an unwanted increase an incident complexity. • Consider Unified Command	• Initial Attack with locally available air resources. • Consider activation of ***Air Group:*** -1 Type 3 Helo -2 Type 1 Helo -1 ATGS/HLCO • Additional hand crews may be required.	$60,000-200,000/ day	• Aggressively initial attack any fire south of Kootenai Creek. • Utilize air resources and ground forces if fire behavior allows. • Closely monitor conditions for activation of MAP 5 • Conduct Public Meeting	
MAP 2 Avalanche chute located east of the fire (7/24 perimeter)	Fire crosses the Avalanche chute and becomes established east of the chute. Fire has the potential to move further east in the Kootenai Creek drainage and/or onto Brooks Face.	• Keep fire within the National Forest boundary. • Fire spread to the south and/or east results an unwanted increase an incident complexity. • If fire is well-established, review predicted weather/fire behavior and consider initiation of MAP 3 tactical	• Initial Attack with locally available air resources. • Consider activation of recommended Air Group.	$60,000-200,000/ day	• Aggressively initial attack any fire east of the avalanche chute w aviation resources. • If fire is well-established, review predicted weather/fire behavior and consider initiation of MAP 3 tactical actions. • Conduct Public Meeting	

Management Action Points (MAPs)	Implementation Criteria	Management Intent	Resources Recommended	Estimated cost	Recommended Tactical Actions	Notes:
		actions.				
MAP 3 Divide ridge between Kootenai Creek and Brooks Face	Fire has crossed the Kootenai Creek/Bass Creek divide ridge and is threatening or has become established on Brooks face.	• Keep fire within the National Forest Boundary • Coordinate all suppression actions with local, county and state officials. • Update Fire Complexity Analysis	• Brooks Group: -1 DIVS -1TFLD -1 SOFR -2 DOZB -2 Type 3 Doz -2 Type 1 IHC -4 Type 6 Eng -2 Type 2 WT If time allows: Substitute dozers for low-impact machinery (skid-steer clippers) and handline. Structure Protection Group: -1 STPS/DIVS -2 TFLD or STEN -2 SOFR -5 Type 3 Eng -5 Type 6 Eng -2 Tactical WT	$30,000/ Day $12,200/day	• Construct and burn indirect line from Kootenai Creek to Bass Creek as directed by Incident Commander. • Closely coordinate with Stevensville Rural Fire Department, Ravalli County Sheriffs Office and Montana DNRC. • Time tag any evacuations. • Conduct Public meeting • Close Bass Creek Trail • Consider activation of Structure Protection Group	

Management Action Points (MAPs)	Implementation Criteria	Management Intent	Resources Recommended	Estimated cost	Recommended Tactical Actions	Notes:
MAP 4 Divide ridge between Kootenai Creek and Bass Creek	Fire crosses the divide ridge and becomes well established north of the divide ridge and south of Bass Creek.	• Keep fire within the National Forest Boundary • MAP 1 and MAP 2 remain the higher priorities	• Initial Attack with locally available air resources. • Consider activation of the recommended Air Group.	$60,000-200,000/ day	• If possible, suppress spot fire(s) with aerial resources. • Once fire is established, disengage. • Close Bass Creek Trail	
MAP 5 Fire is established south of Kootenai Creek	Fire becomes established south of Kootenai Creek on north aspect below St Mary. Potential for large fire growth is evident.	• Keep fire within the National Forest boundary • Coordinate all suppression actions with local, county and state officials. • Update Fire Complexity Analysis	St Mary Group: -1 DIVS -1TFLD -1 SOFR -1 DOZB -1 Type 3 Doz -1 Type 1 IHC -4 Type 6 Eng -1 Type 2 WT. Structure Protection Group: -1 STPS/DIVS -2 TFLD or STEN -2 SOFR -5 Type 3 Eng -5 Type 6 Eng -2 Tactical WT	$20,00/day +Aviation $12,200/day	• Contain fire within road system along St Mary Face utilizing road system and natural barriers • Closely coordinate with Stevensville Rural Fire • Department, Ravalli County Sheriffs Office and Montana DNRC. • Time tag any evacuations. • Update SIP • Consider activation of Structure Protection Group • Close St Mary Trail • Close road system along St Mary Face	

Management Action Points (MAPs)	Implementation Criteria	Management Intent	Resources Recommended	Estimated cost	Recommended Tactical Actions	Notes:
MAP 6 Fire is threatening or has crossed the divide ridge between Kootenai Creek and Big Creek (St Mary)	Fire behavior and/or fire location dictates a need for structure protection.	• Keep fire within the National Forest boundary. • Fire spread to the south and/or east results an unwanted increase an incident complexity. • Update Fire Complexity Analysis • Update SIP			• Update SIP	
MAP 7 New Fire Starts in the Planning Area	New fire starts within Kootenai Fire Planning Area	• Manage fire in accordance with Response Level 1 • Determine appropriate response with Duty Officer			• Prior to initial attack, determine if the fire will be managed independently or as part of the Kootenai Creek Fire Planning Area	

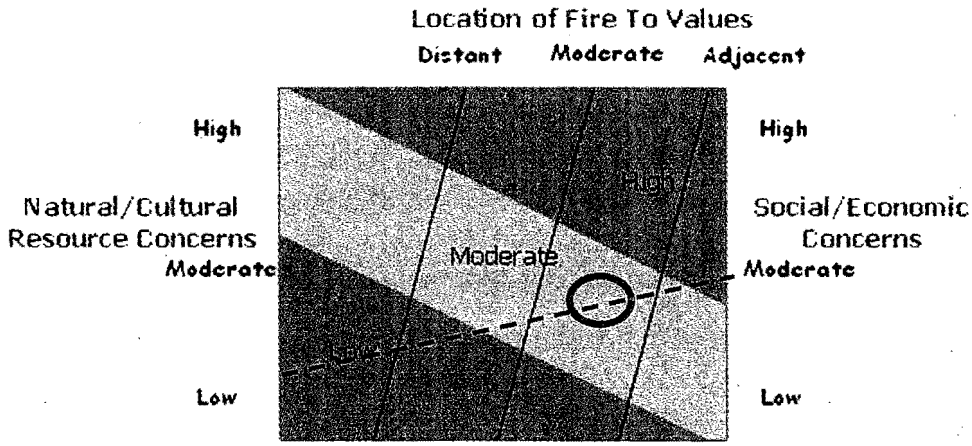
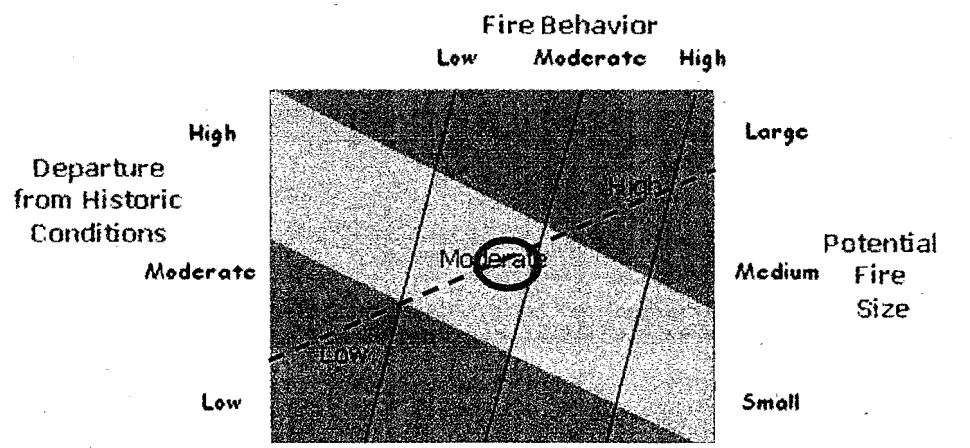
Type II IMT = $250,000/day

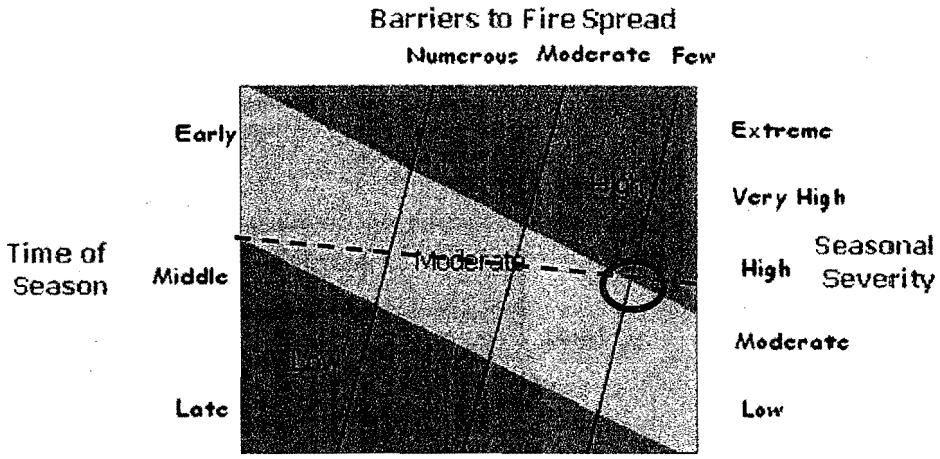
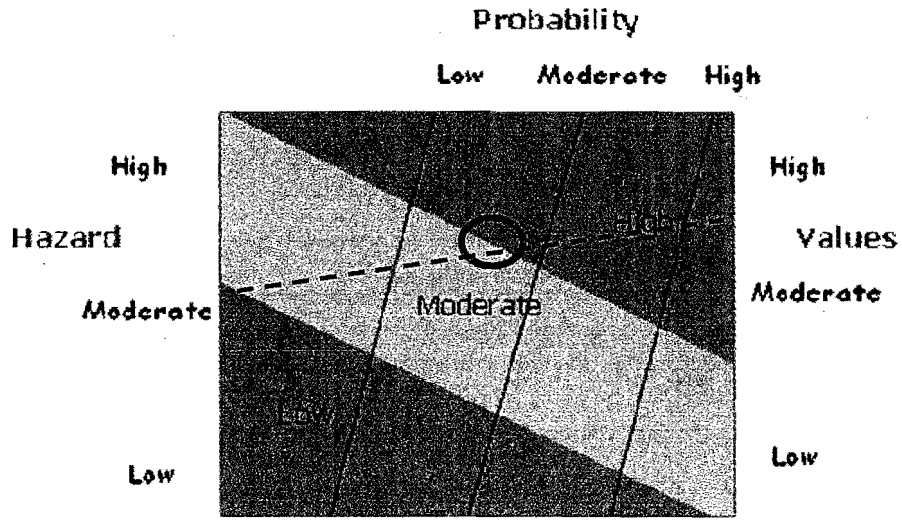
Values at Risk Actions (see associated Management Action Point map)
All actions must consider current and expected fire behavior

Management Action Points (MAPs)	Implementation Criteria	Actions (RL2 and 3)	Resources Recommended	Estimated cost to implement	Actions with Date Completed	References:
V1 – MAP 2 Pictographs in Kootenai Creek	If fire behavior indicates that V1 could be threatened within 24 hours	No water or foam. Wrap with fire shielding	2 Firefighters	$ 1100		
V2 – MAP 7 Look-out Tree	If fire behavior indicates that V3 could be threatened within 24 hours,	Construct handline around tree. Remove duff at base of tree.	3 Firefighters	$1100		
V3 – MAP 2/3 Old Sawmill cabin remnant	If fire behavior indicates that V2 could be threatened within 24 hours	Consider wetting or foaming structure, burn out operations, and/or drop tank w/pump and sprinklers				
V4 – MAP 7 Rocky Mountaineers Shelter	Within 24 hours of a fire threat	Wrap the shelter	3 Firefighters	$1100		
V5 – MAP 7 Log Dam	If fire behavior indicates V5 will be threatened within 24 hours.	Remove vegetation. Deploy soaker hose.	3 Firefighters	$1100		
V6 – MAP 1/5 Historic cabin Ruin	If fire behavior indicates that V6 could be threatened within 24 hours,	Wrap cabin, remove vegetation. Sprinklers approved if needed	3 Firefighters	$1100		
V7 – MAP 1/5 Historic Cabin	If fire behavior indicates that V7 could be threatened within 24 hours	Wrap Cabin, remove vegetation. Sprinklers approved if needed.	3 Firefighters	$1100		

Management Action Points (MAPs)	Implementation Criteria	Actions (RL2 and 3)	Resources Recommended	Estimated cost to implement	Actions with Date Completed	References:
V8 – MAP 1/5 St Mary's LO	If fire behavior indicates that V7 could be threatened within 24 hours	Monitor				St. Mary's is surrounded by a large rock cirque basin and should be evaluated if it needs to be wrapped.
V9 – MAP3/7 Bass Creek Cabin (not eligible for historic register)						
V10 – MAP 3/7 Private structure located in-holding north of Bass Creek			1-STLD/TFLD 1-T6 Engine 5-FFT2	$4250/day		

Validation:

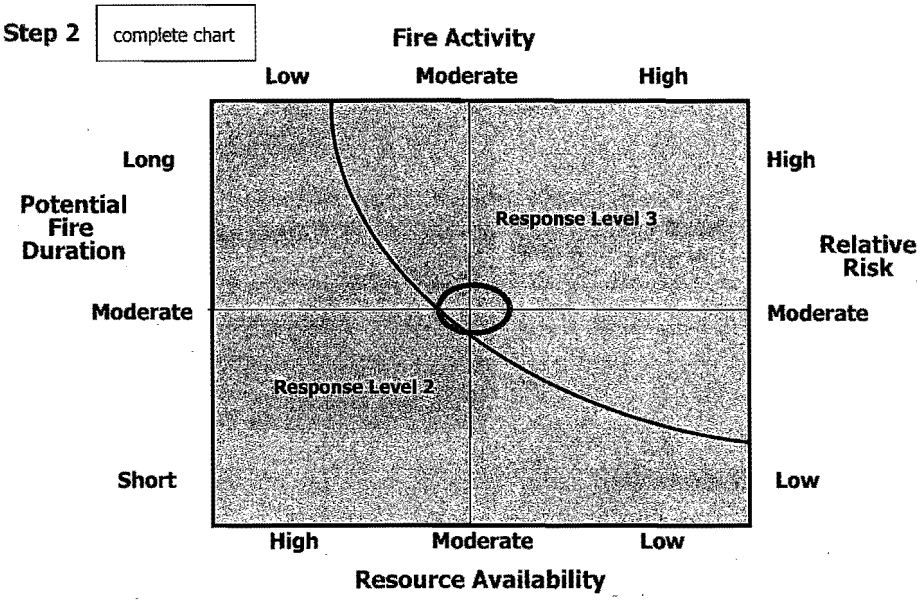
Medium Term Simulation (RL2)	The FSPro 14 day dated 7/22/09 is the most current.
Relative Risk Assessment (RL1, RL2 and RL3)	**Complete Steps 1 -3:** Connect the left and right variables with a line. At the top of the chart, select the appropriate value; follow the line beneath this value down to its 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.
STEP 1 Values	 Rationale: - Location of Fires to Values: Wilderness, Stevensville - Moderate to High Social/Economic concerns. - Natural/Cultural Resource Concerns: moderate, Peregrine Falcon, Pictograph and Historic Cabins.
STEP 2 Hazard	 - Fire Behavior: Moderate due to "normal" yearly conditions. Time of year allows for increase in fire activity as fire season peaks. - Departure from Historic Conditions: near historic conditions within wilderness with departure from norm increasing as fire moves east - Potential Fire Size: Large

STEP 3 **Probability**	 Rationale: • Barriers to Fire Spread: few, • Time of Season: Late July with more than 30 days left to an end of season event or fire danger decline • Seasonal Severity: Above normal conditions with an expected increase in seasonal severity.
Relative Risk	 - Probability: Moderate-High - Hazard: Moderate-High - Values: Moderate-High

Step 1 Are response needs exceeding preplanned actions? **No** = Stay in Response Level 1 **Yes** = Go to Step 2

Step 2 complete chart

Response Level Progression Chart



Response Level 3 is indicated, although on the low side. This seems to be reasonable given the fire location, however, the fire has the potentially to escalate to RL3. This plan is an attempt to capture that potential escalation.

Decision Summary

Response Decision	
Initial Response Decision Rationale	
Signature (RL1)	N/A
Response Decision (RL2)	N/A
Response Decision Rationale (RL2)	N/A
Signature (RL2)	District Ranger Date: District Ranger Date:
Response Decision (RL3)	
Response Decision	

Rationale (RL3)	
Signature (RL3)	

Reports

Fire Report (RL1, RL2 and RL3)	To be completed by Stevensville Ranger District for their records.
FACTS Report	To be completed by the Bitterroot NF

Periodic Assessment/Validation

Assessment Frequency: Daily, as long as fire remains active & Type 3 organization/personnel are committed to the ground; to be reconsidered if conditions change. (To be documented in WFDSS by the District Ranger).

Validation Date(s): Asses daily based on fire location and SIP

Name/Title	Date	Objectives	Planning Response Level	Incident Manager Level
Cary Taylor/ICT 3	7/24/09	Keep fire north of Kootenai River	RL-2	ICT3
		Keep fire from moving east of	RL-2	ICT3

INCIDENT NAME: Kootenai Creek				NUMBER: P1E2K3											
ESTIMATED COSTS															
	RATE		MAP 1		MAP 2		MAP 3		MAP 4		MAP 5		MAP 6		
CREW		#	COST	#	COST	#	COST	#	COST	#	COST	#	COST		
Type I (Haz rate)	7193					2	14386			1	7193				
Fed Type 2	7878														
AD Crew	3984														
Inmate Crew	1800														
Helitack	2490														
Camp Crew	1716														
Contract T2	9004														
Overhead non-haz	553					3	1659			3	1659	1	553		
Overhead Hazard	645	2	1290	2	1290	6	3870	2	1290	5	3225	6	3870		
Casual	163														
Buying Team	2654														
Dispatch/Expand	384														
National Guard	300														
Airfare	800														
Buses	832														
Caterer (ea pers)	48														
Repairs															
Fuel Truck/ No Fuel	1500														
Fuel Truck w/op&fuel	3636														
Garbage	60														
Generator/Electricty	769														
Land Use	200					1	200					1	200		
Mechanic w/truck	1192														
Ambulance	850														

Office Service	1900												
Office Trailer	500												
Pickups, Vans	130												
Showers(Avg. Daily	2925												
Toilets	80												
Portable Water	1312												
Refer	312												
Cache Items(pers)	50						20	1000					20	1000
Phones	2000												
Pickup w/Opr	250												
Pickup Agency	72												
SUV/Pickup Rental	85												
EQUIPMENT		**#**	**COST**	**#**	**COST**	**#**	**COST**	**#**	**COST**	**#**	**COST**	**#**	**COST**
Engine Fed T3	1357											5	6785
Engine Fed T4	1307												
Engine Fed T6	1169					4	4676			4	4676	5	5845
Engine Cont T3	2082												
Engine Cont T4	2002												
Engine Cont T5	1920												
Engine Cont T6	1742												
Dozer Contract	1672					2	3264			1	1672		
Dozer Fed w.opr	1456												
Faller Module	1465												
Faller w/Saw & Trans	650												
Dozer Contract	1672												
Transport	1120												
Water Tender Contract	1440					1	1440			1	1440	2	2880
Potable Water	1312												

AIRCRAFT													
*Retrieve daily aviation & retardant cost from the Aviation Business System (ABS) web site: http://www.fs.fed.us/business/abs/reports.php			200,000		200,000				200,000				
DOI - AMD Aircraft													
SEAT - Exc Use	1984												
SEAT - CWN	2386												
GRAND TOTAL/DAY			**201290**		**201290**		**30495**		**201290**		**19865**		**30495**
Remarks: Costs reflect local resources with no travel costs incurred.													

Strategic Risk Assessment
Kootenai Creek Fire
Bitterroot NF.

Reference the attached Kootenai Creek 215r Strategic Safety Analysis for Hazard Identification and Mitigation

Primary (Current) Course of Action-Confinement

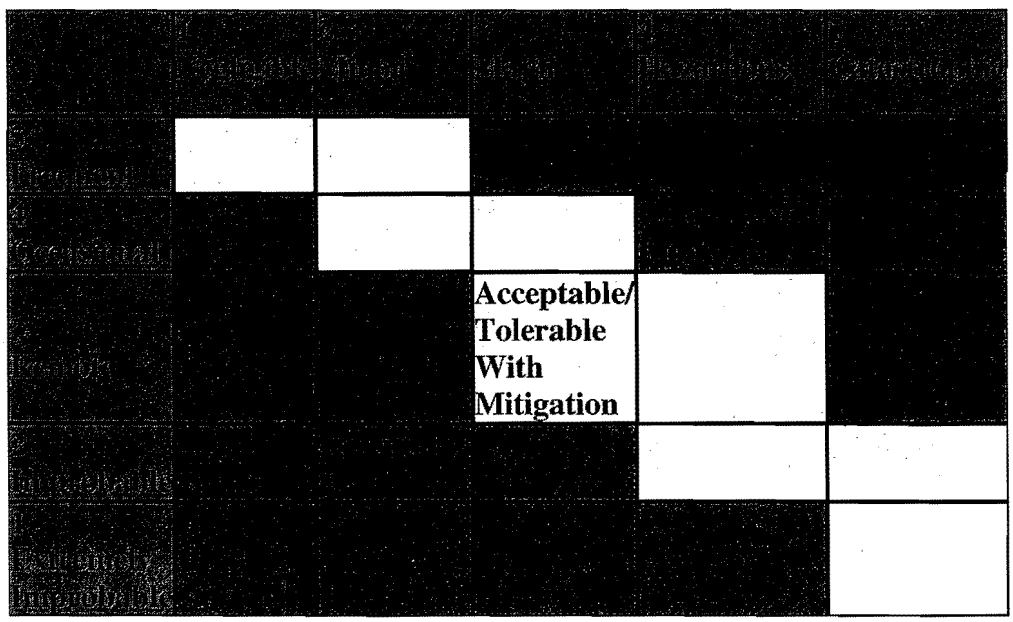
Management Intent:
Suppress Fire/minimize firefighter exposure.

Strategy:
The fire is currently in confinement/monitor status utilizing air and ground resources as needed to support natural barriers. Utilize IR imagery/remote cameras on a scheduled basis to maintain situational awareness of current conditions.

Decision Point:
Fire is located rugged terrain and confined by Kootenai Creek to the south, the Kootenai creek/Bass Creek to the north, the Avalanche Chute to the east and wilderness to the west.. If fire crosses Kootenai Creek (MAP 1) or Avalanche Chute (MAP 2), move to Alternate Plan: Indirect Attack.

Tactical Action:
Depending on weather and fuel conditions, action may include, monitoring, aerial delivered water drops and handcrew suppression efforts. Recognize that access is limited to Kootenai Creek trail.

Exposure
Exposure is currently limited to one or more pilots and approximately 20 ground firefighters(s).



Risk vs Gain

Current fire behavior is in line with FMU Objectives for restoring fire into the wilderness. The fire is not considered a risk if it remains within the wilderness. The Risk involved is associated with the fire leaving the forest and threatening private land/structures. Gain is associated with positive fire effects within the wilderness.

Assessment

Firefighter Exposure: Occasional-Catastrophic/RED. Mitigation via standard fireline mitigation actions: Occasional-Hazardous/YELLOW

Aviation Exposure: Occasional-Catastrophic/YELLOW. With mitigation: Remote-Catastrophic/ YELLOW

Probability of Success

Based on the time of year, current fire behavior, forecasted weather and fire history, the Probability of success is marginal (<50%). However, the amount of firefighter exposure is minimal with some concern over helicopter operations.

Alternate Course of Action-Suppression (indirect line)

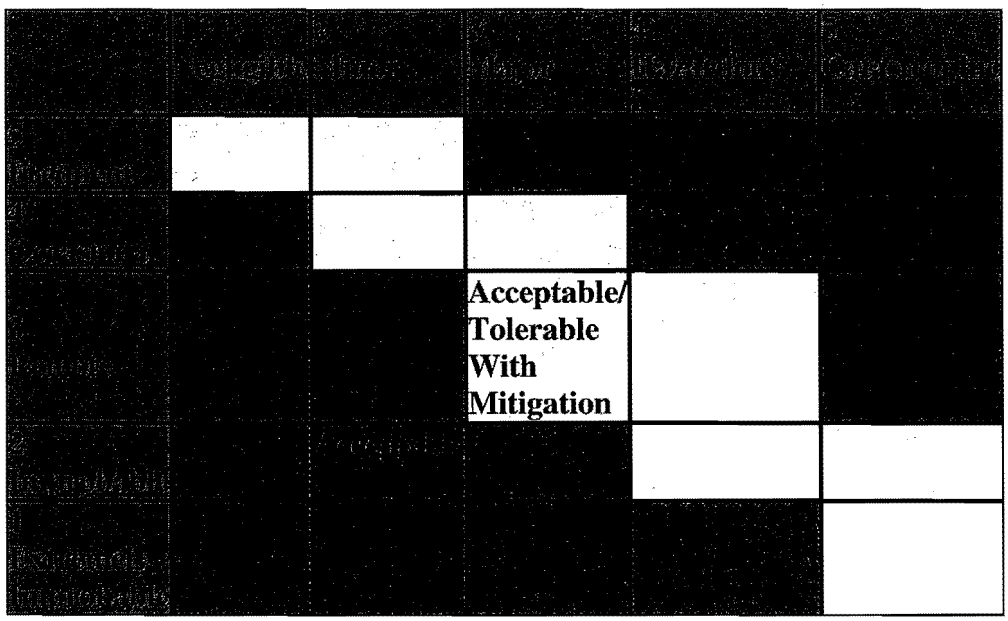
Management Intent:
Prevent fire from impacting private land/structures. Limit firefighter exposure in rugged terrain and focus efforts where the probability of success is high.

Strategy:
The fire has breached natural barriers described under the confinement course of action. Fire spread models demonstrate fire spread to east/north/south. Direct line is not considered to be a viable option due to safety concerns. Construct indirect line (see map) utilizing ground crews with aerial support.

Decision Point:
Fire has crossed Kootenai Creek (MAP 1) or Avalanche Chute (MAP 2). If fire threatens private land/structures consider MAP 4.

Tactical Action:
Construct fireline/fuelbreaks utilizing handcrews and mechanized equipment. Develop firing plan. Coordinate with local law enforcement and fire officials. Utilize tactical air support to check, direct and delay fire spread as needed to complete indirect line. Develop firing plan to begin at MAP 4.

Exposure
Exposure is based on indirect line construction for 50-100 firefighters, aircraft and mechanized equipment.



Risk vs Gain
Action is in line with FMU Objectives for Roaded/WUI FMUs. The Risk is associated with the line construction tasks (chainsaws, machinery, driving, aviation, etc) and

firefighting efforts. Gain is associated with preventing damage to private/land structures and delaying fire spread until preparations are complete on indirect line.

Assessment

Firefighter Exposure: Remote-Catastrophic/YELLOW. Standard fireline mitigation practices apply. Exposure from fire reduced due to distance from fire.
Aviation Exposure: Occasional-Catastrophic/RED. With mitigation: Remote/Catastrophic YELLOW
Public Safety: Remote-Improbable/YELLOW. Perceived exposure from smoke should be addressed.
Socio-Political Exposure: Occasional/Major. Mitigation through aggressive Fire Information strategy.

Probability of Success

Based on the time of year, current fire behavior, forecasted weather and fire history, the Probability of success is High (>70%). The amount of firefighter exposure will increase as the number of firefighters increase. An indirect approach does (temporarily) remove the fire behavior threat. Exposure is associated with standard fireline construction hazards, which can be easily mitigated. Exposure will greatly increase if/when the fire reaches indirect line as the threat to the public increases. A greater degree of mitigation will be required and ultimately drive an increase in risk.

Incident Strategic Safety Analysis	Operational Period:	Incident: **Kootenai Creek**
Identification of Hazards, Risk Assessment and Residual Risk	Assignment: **Manage fire consistent with Delegation of Authority and identified incident objectives and requirements Primary Strategy: Combination confinement and direct attack. Alternate Strategy: Indirect attack.**	Objective(s): **Keep fire from spreading outside of Wilderness to the east. As conditions allow, utilize direct attack to contain the fire along Kootenai Creek and eastern flank. Allow fire to the degree practical, to burn within the Selway-Bitteroot Wilderness Area.**

Pre-mitigation				Location			Mitigation	Post-mitigation			
Hazards	**Likelihood**	**Severity**	**Risk Level**	**Direct Line**	**Indirect Line**	**Structure**		**Likelihood**	**Severity**	**Risk Level**	**Acceptable? Yes/No**
Weather	Remote	Major	**Yellow**	**X**	**X**		Obtain daily weather and spot weather forecasts. Monitor T-storm cell development.	Improbable	Major	**Green**	**Yes**
WUI	Remote	Catastrophic	**Red**		**X**	**X**	Prepare evacuation plan. Identify management action points for 3 levels of notification (24hr/12hr/2hr). Ensure all residents are informed of plan. Identify management action points that would trigger the construction and burning out of contingency lines when conditions permit. Utilize aviation resources to keep fire in check on North, South and East flanks. Coordinate with local law enforcement and emergency management personnel.	Remote	Minor	**Yellow**	**Yes**
Wildlife	Occasional	Catastrophic	**Red**	**X**	**X**		Brief resources on safe practices when working around bear and moose. Maintain clean camp.	Remote	Hazardous	**Yellow**	**Yes**
Aviation	Remote	Catastrophic	**Red**	**X**	**X**	**X**	Utilize air attack. Flight-follow locally. Ensure ground contacts. Ensure clear targets.	Improbable	Catastrophic	**Yellow**	**Yes**
Transportation	Occasional	Catastrophic	**Red**	**X**	**X**	**X**	Slow down. Post signs. Drive defensively. Monitor hours worked. Limit driving in darkness.	Remote	Hazardous	**Yellow**	**Yes**
Snags/Hazard Trees	Occasional	Hazardous	**Red**	**X**	**X**		Identify, locate, isolate. Fall snags in work areas if practical/safe.	Remote	Hazardous	**Yellow**	**Yes**
Fire Behavior	Remote	Catastrophic	**Red**	**X**	**X**	**X**	Identify fire and weather parameters for disengagement. Only use direct attack during periods of benign fire behavior. Identify escape routes. Ensure adequate safety zones are present. Assign FBAN and utilize pocket cards. Post lookouts and monitor by air attack.	Improbable	Catastrophic	**Yellow**	**Yes**

Camp/Spike Camp	Occasional	Major	**Yellow**	X	X	X	Provide adequate food, water and shelter. Maintain sanitary conditions. Brief personnel on personal hygiene.	Remote	Major	**Yellow**	**Yes**
Human Factors	Occasional	Catastrophic	**Red**	X	X	X	Provide clear Leader's Intent. Communicate. Monitor fatigue and apply work/rest guidelines. Address complacency.	Remote	Hazardous	**Yellow**	**Yes**
Terrain/walking	Occasional	Minor	**Yellow**	X	X		Use briefings and safety messages as opportunities to discuss terrain hazards	Occasional	Minor	**Yellow**	**Yes**
Communications	Occasional	Catastrophic	**Red**	X	X	X	Establish human repeaters in effective locations, use air attack, use local frequencies as assigned.	Improbable	Catastrophic	**Yellow**	**Yes**
Heavy Equipment	Remote	Major	**Yellow**		X		Assign dozer bosses with radios	Improbable	Major	**Yellow**	**Yes**
Operations Section Chief			Date / Time:			Safety Officer			Date / Time:		

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Likelihood/Probability

5 Frequent- Occur Many Times
4 Occasional- Occur Sometimes
3 Remote- Unlikely, But Possible to Occur
2 Improbable- Very Unlikely to Occur
1 Extremely Improbable- Almost inconceivable

Severity/Consequences

5 Catastrophic- Equipment destruction/multiple Fatalities
4 Hazardous- Serious Injury, Major Equip Damage
3 Major- Serious Injury, Serious Accident
2 Minor- Nuisance, Use of Emergency procedures
1 Negligible- Little Consequence