Copper King
Fire Spread Probability
9/5 - 9/18/2016

MAP	Location and Management Intent	Recommended Actions
1	Fire threatens the residences in the Thompson River drainage. If fire crosses the Thompson River and moves to the west, the fire will threaten the Ashley Creek watershed (municipal water supply for Thompson Falls).	If fire crosses the ACM road, consider evacuation of the Thompson River corridor (Area #1 as referenced in the Population Protection Plan). Develop additional MAPs for longer term management of the incident.
2	This MAP is located along the south side of Hwy 200 from Weeksville northwest to the confluence of the Thompson River and Clark Fork River. When the fire has crossed this MAP and cannot be contained/controlled in the next operational period. If the fire crosses the MAP in a significant spread event, opportunities to slow or delay fire spread to the south will be effective due to prevailing winds, aspect, and topography. Protection of the public.	1. Identify opportunities for fire suppression tactical actions to the south. 2. Assess and consider implementing structure protection for structures south of Highway 200, including Eddy Mountain Lookout. 3. Assess the current area closure for possible expansion to the south. 4. Assess potential impacts to utility corridor and railroad. 5. Coordinate with County Sheriff for possible implementation of evacuation plan. Utilize 0-8hr evacuation map.
4	Fire threatens to cross the ridgeline above and to the north of Buckeye Creek. This has the potential to threaten residences in the Thompson River drainage and the Ashley Watershed to the west.	1. Keep fire from becoming established to the north of ridge. 2. Consider evacuation of residences at the confluence of Buckeye Creek and Thompson River.
5	Fire threatens to move east of the prominent ridge defining the western edge of the Munson Creek drainage. A fire established in Munson Creek will increase the threat to homes along Highway 200.	Consider holding fire using air resources to keep fire from making aggressive runs up to indirect line to the east.
6	Fire gets established in Munson Creek which may threaten the Buffalo Bill residential area which creates further and more complex suppression operations.	1. Using air resources keep fire from making aggressive runs up to indirect line (MAP 7) to the east. 2. Consider firing strategic locations across the indirect line (MAP 7).
7	This MAP extends northeast from Highway 200, southeast of Munson Creek. It ties in with Rd 5587 at the junction with Rd 18311 and follows Rd 5587 to the junction of Rd 7587. It then follows Rd 7587 and extends northeast utilizing existing roads and topography tying in with the Little Thompson River. When the fire has crossed the MAP and cannot be contained/controlled in the next operational period. Slow or delay the fire from spreading east toward the communities of Weeksville and Buffalo Bill. Control opportunities east of this MAP are limited until Weeksville Creek which is in places a narrow drainage with areas of heavy fuel concentrations. Crew on-the-ground tactical actions east of this MAP will likely not be effective given the continuous fuels, steep/inaccessible terrain, and lack of safety zones. Slowing or delaying the fire spread will likely be through the use of aerial resources.	1. Consider preparation of Weeksville Rd for possible burnout operations. 2. Assess and prepare road in Buffalo Bill Creek to Rd 7512 to the confluence of Mudd and Loneman Creeks for utilization as potential control line. 3. Notify residents in Weeksville and Buffalo Bill Creek and implement structure protection plans.
8	This is the north ½ of the indirect line that is the closest northern and eastern control edge that firefighters and equipment have ground access to. The control line is used to protect private and state forest industry lands.	If fire threatens indirect control line, consider firing off the line.
9	This MAP is located along the west side of the Thompson River from the Copper King Campground northeast to the Little Thompson River. If the fire crosses the MAP in a significant spread event, opportunities to slow or delay fire spread to the northwest will be effective due to prevailing winds and topography. Protection of the public is a priority. When the fire has crossed the MAP and cannot be contained/controlled in the next operational period.	1. Identify opportunities for fire suppression tactical actions to the west. 2. Consider checking fire spread utilizing aerial assets. 3. If fire cannot be kept out of Ashley Creek, minimize fire intensity to less than 4ft flame lengths where possible. 4. Coordinate with County Sheriff on possible implementation of pre-evacuation plan. Utilize 0-8hr evacuation map.
10	Fire threatens Weeksville Creek and Buffalo Creek residential area.	Keep fire east of Weeksville Creek. If the fire crosses to the east, develop additional MAPs for longer term management of the incident.
11	This MAP begins where MAP 10 ties in with Mudd Creek and follows Mudd Creek north to the confluence of the Little Thompson River. It then follows the Little Thompson River north to the confluence with the Thompson River then extends north along the 9991 Rd just north of Chippy Creek. To slow or delay the fire spread from spreading to the north/northeast impacting DNRC and private lands. Provide timely notification of fire situation to the public and DNRC. When the fire has crossed the MAP and cannot be contained/controlled in the next operational period.	1. Assessment and implementation of structure protection east of the Little Thompson River as necessary given fire spread and conditions. Utilize 0-8hr evacuation map. 2. Assess potential control opportunities to the north and east. 3. Assess opportunities to prevent undesired fire effects to whitebark pine stand near the 18437 Rd.
12	To slow or delay the fire from reaching structures to the north of Loneman Creek. Actions to the east of Buffalo Bill Creek will be effective given current weather, fuels and topography. Actions to the NE of road 7512 will not be as effective given the current weather, fuels, and topography. When the fire has or is anticipated to reach or cross the MAP within the next 48 hours.	1. Implement structure protection for DNRC lease structures located to the N of Loneman Creek. 2. Consider improving 1035 road and if needed construct dozer line to connect roads from the north side of Corona Divide to road 5584 (Chippy Creek Fire). 3. Consider implementing burn out and holding operations to secure line and prevent fire spread to the east. 4. Coordinate with County Sherriff for possible implementation of evacuation plan. Utilize 0-8hr evacuation map. 5. Implement structure protection south of Loneman creek and west of the 1025 road.
13	To slow or delay the fire from reaching structures E of road 1025 and S of Cedar Creek. Slow or delay fire spread as it approaches whitebark pine plantation located N of North Fork Creek in section 26. Actions E of road 1025 and S of Cedar Creek and north of Corona Divide will likely be successful given the current weather, fuels, and topography. When the fire has or is anticipated to reach or cross the MAP within the next 48 hours.	1. Coordinate with County Sheriff for possible implementation of evacuation plan. Utilize 0-8hr evacuation map. 2. Assess structure protection needs for those structures east of road 1025. 3. Consider using aircraft to slow fire spread toward whitebark pine plantation located N. of North Fork creek in Section 26. 4. Consider notification of permitees with allotments near the headwaters of the Little Thompson River. 5. Coordinate potential fire closure expansion with cooperators. 6. Notify CSK Tribes concerning potential fire spread on tribal land.
14	This MAP starts on the ridge just north of the confluence of the Thompson River with the Clark Fork River. It follows the ridge north to trail 1102 between Mt Silcox and Roundtop Mountain and follows the trail northeast to Rd 603 in the West Fork of the Thompson River. It then follows trail 426 to Marmot Peak. If the fire crosses the MAP in a significant spread event, opportunities to slow or delay fire spread to the west/northwest will be effective due to prevailing winds and topography. Prioritize protection of the public and minimizing undesired fire effects in Ashley Creek. When the fire has crossed the MAP and cannot be contained/controlled in the next operational period.	1. Identify opportunities for fire suppression tactical actions to the west. 2. Utilize strategy and tactics that minimize undesired fire effects (<4ft flame lengths) within the Ashley Creek watershed. 3. Assess and consider implementing structure protection for those structures north of Highway 200, including the Mt Silcox Electronic Site. 4. Coordinate with County Sheriff for possible implementation of pre-evacuation plan. Utilize 0-8hr evacuation map.

Copper King FSPro Description

Description: This is NOT a progression map! This analysis accounts for the fact that weather forecasts are often reliable for only a few days, but we need to take into account potential fire growth for a longer period of time so proper planning can take place. This analysis is called an ensemble – it combines the growth footprint for 3,000 individual fires from the current sources of heat on the Copper Creek Fire perimeter using the same initial three days of forecast weather and 11 days of weather records based on the historical record from the selected weather station. Thompson Falls RAWS was used for the energy release component (ERCs for fuel model G), an index which essentially tracks seasonal dryness and therefore how available fuels are to carry fire. Hot Springs RAWS was used for winds as it has been the most representative of wind speed and direction on the fire.

How to use this map: One of the best ways to use FSPro is to evaluate the probability of the fire impacting important values and assets within the next two week period. This data is meant to inform the strategy for the fire rather than the tactics, although this information can be helpful in prioritizing actions that take place on the ground. Those areas within the >80% probability band burned most often and those areas in the <0.2% probability band burned the least often when the 4,000 individual fire footprints were sandwiched together.

Interpretation: This is a 14-day FSPro analysis covering the period from 9/5 – 9/18/2016 using three days of forecast weather and 11 days of climatology from the Thompson Falls RAWS. Scattered and intense heat from recent IR that has been confirmed on the ground were used as ignitions. The remainder of the fire perimeter is either not showing any heat from IR or is assumed to not have additional spread due to distance of mop-up from the fire's edge. Average fire size is about 3,000 acres based on 3000 simulations. Based on this analysis, it is highly unlikely the fire will reach the Weeksville Road in the next two weeks. There is a moderate chance (<60%) the fire will cross the divide between Munson Creek and Spring Creek in the next 14 days. There is <20% chance the fire will cross Rd 5857, as this road is considered a barrier to surface fire spread and therefore the fire would have to spot across. This analysis does not include any suppression nor fire spread from rollout.

Incident Management Team
Northern Rockies
Greg Poncin's National Incident Management Team

MAPs
GRIDCODE
80 - 100%
60 - 79%
40 - 59%
20 - 39%
5-19%
0.2 - 4.9%
<0.2%
Fire Perimeter 9/4/2016

MAP 11a
MAP 9
MAP 8
MAP 14
MAP 7a
MAP 10
MAP 12
MAP 13
MAP 1
MAP 3
MAP 5
MAP 6
MAP 2

NORTH
0 1 2 Miles