Errata

1. Omit report references to the IPNF Fire Management Plan. The IPNF Fire Management Plan is no longer valid. The original, primary, reference was removed prior to completion of the EA, however, specifically, one sentence still remains: “The fire management plan (FMP) outlines activities and procedures to meet the objectives.” (Page 3 of the Fire and Fuels Resource Report). Omit any and all other references to the Fire Management Plan found in the Fire and Fuels Resource Report.

2. The term “Appropriate Management Response” has evolved with the updated Guidance for Implementation of Federal Wildland Fire Management Policy (February 13, 2009); “Appropriate” should be dropped as it was confusing to the public. Instead, fire management agencies “Respond to wildland fire”. Specifically, remove reference on Page 3, under heading IPNF Forest Plan, page 36 under heading Fire Suppression, and page 37 under heading Fuel accumulation, fire suppression, fire behavior and FRCC of the East Fork of Meadow Creek Fire and Fuels Resource Report.

Addendum

This portion of the document will serve two purposes:

1) Modify the description of the Analysis Area, beginning on page 6 of the Fire and Fuels Resource Report, as follows. Specifically, the portions in italics below are additions to the original document and further describe the spatial and temporal boundaries of the analysis area for direct, indirect and cumulative effects to the fire and fuels resource.

2) Address potential changes to the fire and fuels analysis based on the new proposed action for the East Fork of Meadow Creek Supplemental Environmental Analysis (EA); specifically as related to the purpose and need of reducing the risk of unwanted fires in the project area.

1) Analysis Area

The East Fork of Meadow Creek Project (EFM) proposes vegetation treatments on National Forest System lands in the vicinity of Camp Nine and Fern Creek, north of the junction of Forest Road 2547 and County Road 34 (Meadow Creek Road) in the East Fork of Meadow Creek drainage on the Bonners Ferry Ranger District of the Idaho Panhandle National Forests in Boundary County, Idaho.

The spatial boundary of the area analyzed for direct, indirect and cumulative effects on the fire and fuels resource is the project area of the East Fork of Meadow Creek which encompasses approximately 7,800 acres in the upper Meadow Creek watershed stretching from Wall Creek to the east, and Rock Creek to the west. Approximately 7,220 acres are National Forest lands and 640 acres are privately owned. This area was used to analyze current fuels conditions, fire history, fire regime condition class, as well as current and expected fire behavior and other effects on the fire and fuels resource. Fire history dates back
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to the late 1800s, and previous activities, dating back several decades (generally to the 1960s) were utilized to help determine cumulative effects. The term ‘project area’, used throughout this document, is synonymous with the fire and fuels ‘analysis area’.

As mentioned, there are multiple objectives for the project area landscape, but the most important from a fire hazard perspective, which is not clearly outlined in the purpose and need, is public safety. The Camp Nine and Meadow Creek areas (which are part of the Boundary County wildland urban interface) are becoming increasingly populated and egress routes in the event of a fire could be cut off in case of extreme fire behavior (such as crown fire). This is especially true along Forest Road 2547, as it is rough and most suited for slow travel by four-wheel drive vehicle. There is much private land and many residences along this route.

In addressing the other, more clearly defined objectives, reducing surface, ladder and canopy fuels will reduce (not eliminate) the potential for high-intensity fire and moderate to severe fire effects in this municipal watershed. This will be described in more detail; however, it is a fairly simple concept. In general, reduced surface fuels means less intense surface fire. Reduced ladder fuels means fewer avenues for fire to move from the surface into the tree crowns. Fewer trees means spaced canopies and less crown fuels, therefore less chance for fire to move from one tree crown to the next and sustain a crown fire.

The analysis area for fire and fuels is approximately 7800 acres; however, the proposed action (Alternative 2) would treat just over 1500 acres of National Forest System lands within the East Fork of Meadow Creek project area (19% of the total acres). This action would be accomplished through intermediate treatments of the overstory, such as commercial thinning, as well as some even-aged harvesting – seed tree and shelterwood in order to best improve stand and landscape health and vigor, as well as achieve the desired species compositions. Ground-based, skyline, and some helicopter harvest methods are being proposed. In addition, post-harvest fuels treatments would occur in order to “treat” natural and activity fuels contributing to fire hazard. This would occur in all stands – underburning is being proposed on 650 acres – including all of those stands generally characterized as dry-site or where fire would best be suited based on residual timber site-preparation for planting. Biomass utilization by the purchaser of the timber sale would be encouraged prior to post-harvest fuels treatments, especially on those acres planned for grapple-piling followed by pile burning.

Similar activities would occur if Alternative 3 were selected and implemented, however on less than half the acres (700 acres – 9% of the project area).

2) Modifications to the Proposed Action

Project Purpose and Need for Action:

The purpose and need (project goals) for the East Fork of Meadow Creek project area are to:

1. Maintain and improve the overall forest health and resilience.
2. Reduce the risk of unwanted fires in the watershed.
3. Reduce the risk of sediment reaching the stream systems.
Original Proposed Action (Alternative 2):

- Vegetation treatments on approximately 1520 total acres; Even-aged (110 acres) & Intermediate harvest (1410 acres).
- 1250 acres ground-based systems, 118 acres skyline systems, 152 acres helicopter.
- Activity fuels treated with one or a combination of the following: prescribed fire, mechanical grapple piling w/pile burning, and whole-tree yarding.
New Proposed Action (Alternative 2):  
- Dropped from the original proposed action: Unit 9 (Helicopter; 152 acres), Unit 36 (12 acres), Unit 81 (5 acres), Unit 82 (4 acres), Unit 83 (25 acres), a portion of Unit 37 (24 acres), and a portion of Unit 69 (3 acres).
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- This modification removes a total of 225 total acres of treatment, which includes 73 acres of commercial thinning followed by grapple-piling and pile burning on generally dense cool and moist forests, as well as 152 acres of commercial thinning followed by underburning in dry-site forest types. The latter is a generally contiguous area occurring adjacent to Forest Service Road #2488. This 152 acre Unit (9) has been affected by missed fire return intervals.

- Alternative 3 would be reduced by 75 acres of the original (portion of Unit 9).
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Figure 2. Proposed Action (Alternative 2) for the Supplemental EA to the East Fork of Meadow Creek Project.
Note: Removal of Unit 9, 39, 81, 82, 83, and portions of Unit 37 and 69

The fire and fuels analysis evaluated the effects of the alternatives on general fire behavior, fire severity, development and maintenance of low-crown fire potential and reducing the risk of unwanted fires in the project area. Unwanted fires being those of generally high-intensity (long flame lengths, i.e. crown fire) and severity (those which cause resource damage, i.e. high tree mortality or soil damage); often, unwanted fires are those which have a high resistance to control by suppression forces. Three indicators used to measure the effectiveness of the alternatives on
the purpose and need were flame length (in feet), probability of torching (percentage) and crowning index (winds in miles/hour necessary to initiate and sustain crown fire). In addition, the Fire Regime Condition Class was also evaluated for the Current Condition (Alternative 1), the Proposed Action (Alternative 2) and the No Roads Alternative (Alternative 3).

As would be the case for the original action alternatives, the ‘new’ Alternative 2 (reduced by approximately 225 acres from the original) would also reduce surface flame lengths to less than 4 feet (level of direct attack by ground forces). Canopy cover would be reduced by approximately half (depending on type of overstory removal) within treatment units. This would result in a large increase in canopy base heights and a reduction in canopy bulk densities to a level where the probability of torching approaches zero and the winds necessary to sustain crown fire are near unrealistic. In addition, ladder fuels would be reduced either through biomass utilization or through post-harvest activities (increasing the void between the understory and overstory – effectively increasing canopy base heights), and reduce surface fuels (activities would reduce small woody and coarse woody debris through biomass utilization, grapple-piling, or prescribed underburning). Reducing fuels to modify fire behavior in one area implies fire effects will be ‘ameliorated’ to a greater extent than just the treatment area (Finney, 2001)\(^1\) – as a fire moves into a treated area it slows down or the intensity lessens modifying movement across the landscape and also providing an area where suppression forces can be most effective.

The initial entry would have an immediate effect on the probability of torching – reducing it to zero in the treatment year for approximately 20 years because the canopy base heights will be increased so dramatically. The increase in the crowning index would remain effective for decades into the future, until regeneration becomes incorporated enough into the mid and overstory as to facilitate fire spread (Fire and Fuels Report, page 29).

**Summary**

The purpose and need related to fire hazard and fuels reduction is to *Reduce the risk of unwanted fires in the watershed*. Both of the original action alternatives – Alternative 2 (Proposed Action) and Alternative 3 (No New Roads) – would meet this purpose and need, however, Alternative 3 to a lesser degree, as fewer acres would be treated and there would be greater discontinuity of treatments across the landscape.

As Figure 2 shows, Alternative 2 as modified for the Supplemental EA would still provide fuels treatment and fire hazard reduction across the landscape – modifying the way a larger scale fire

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would move through the area as a whole. Fires generally move from southwest to northeast and the location of the fuels treatment units offer a ‘protection’ from fire movement in the heading spread under this direction to the upper elevations of the project area. These treatments would not offer fire-proofing – the treated units could still burn in a wildfire – but expected fire behavior would be reduced, generally to a level which would offer assistance to fire suppression (allowing resources to arrive on scene and initiate direct attack).

However, less treatment acreage would understandably result in less direct fire hazard reduction. Removing Unit 9 from treatment under the revised Alternative 2 would leave a relatively large patch (152 acres) of dry-forest untreated along a heavily traveled forest system road. If a fire started in or moved into that area from elsewhere, fire behavior would be expected to be consistent with that predicted for untreated fuels in Alternative 1. However, the proposed change affects less than 200 acres of a 7800 acre landscape. As the new Proposed Action would treat nearly 90% of the original, and over twice the acreage of Alternative 3 (1300 acres vs. 620 acres for Alternative 3), the purpose and need to reduce the risk of unwanted fires in the watershed would still be met if the ‘new’ Alternative 2 were chosen for implementation.

Lastly, there would still be an expected landscape fire regime condition class improvement under the refined Alternative 2. Although Unit 9, 152 acres which would not be harvested or underburned, would have contributed to the overall landscape fire regime condition class, as it is dry-forest which has missed fire return intervals. However, an improvement trend in fire regime condition class from the current condition departure is still expected (though it was not analyzed) and would fall somewhere between the original Alternative 2 and Alternative 3 (see below).

Overall, the FRCC ratings for the analysis are:

- **Current Condition (Alternative 1):** Landscape FRCC 2 – Departed 49%
- **Proposed Action (Alternative 2):** Landscape FRCC 1 – Departure 32%
- **No Roads (Alternative 3):** Landscape FRCC 2 – Departure 39%

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