Black Hills Forest Resource Association

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Attn: Sawbuck Forest Management Project
Mystic Ranger District
8221 South Hwy 16,
Rapid City, SD, 57702

This letter is in response to the request for comments from the Black Hills National Forest (BHNF) on the Sawbuck Vegetation Management Project (SVMP). The Black Hills Forest Resource Association (BHFRA) and its members appreciate this opportunity to provide comments in response to the notice for comments on the scoping notice for the SVMP.

Treatment Area and Types

BHFRA strongly believes in the need for precommercial thinning (PCT) on the BHNF and the need to be increasing the acres treated each year. However, the need for PCT activities should not obscure the need for other types of treatments. We note the SVMP is proposing approximately three precent of the project area for commercial thinning despite MA 5.1 (Forest Products Production Emphasis) covering 85 percent of the project area. We recognize not all those 114,000 acres contain stands ideal for commercial thinning, but after looking at aerial imagery we strongly believe there is considerably more opportunity and need for commercial thinning beyond what is proposed. Although no stand development maps were found in the online scoping materials, we believe substantial opportunities exist on grounds suited for traditional harvest systems and wouldn't need the funding component of steep-slope operations. A site visit with purchasers may be helpful for both parties and BHFRA would welcome such a visit.

We strongly urge the BHNF to reconsider the proportions and types of treatments proposed in the SVMP and reprioritize commercial thinning activities in the project area. The importance of our request is elevated given the extremely low volume under contract of companies here in the Black Hills.

Prescribed Fire

Just as BHFRA firmly believes there is a need for precommercial thinning, we also support prescribed burning on the BHNF. We have appreciated past conversations regarding how to implement those activities to the benefit of the forest, the public, and forest products

companies. We also believe prescribed fire can be a beneficial tool to aid precommercial thinning goals. However, we have also seen instances where prescribed fire has not benefited the public or the forest – those losses have been more prominent in forested stands not mechanically treated first and in post-fire areas where substantial amounts of regeneration have been consumed in the fire.

To ensure beneficial outcomes on the landscape, the BHNF should:

1) Thoroughly describe the desired conditions in all stands where prescribed fire may occur
2) With clear limitations on overstory mortality and
3) Requirements for replanting acres burned in post-fire areas before burning additional acres in post-fire areas. This has previously been found in other BHNF projects, including the Hell Canyon Maintenance Burn Project and
4) A clearly described plan of pausing and reviewing prescribed fire activities if observed conditions are not meeting desired conditions.

The issue of ensuring seedling viability following prescribed fires is of increased importance in Management Areas such as 5.1.

Goshawk

We encourage the BHNF to include the findings from Graham et al (2015)[1] in any potential discussions of goshawks that may be located in the project area. Big picture, Graham (2015) aims to correct long-running assumptions that goshawks require buffer areas of high density forest. Graham, with Reynolds, (2015) writes, "Also, Reynolds and others (1992) recognized that high forest canopy cover was an essential component of goshawk habitat, especially in the older structures. As such, their canopy recommendations only applied to older vegetative structures, which, at fine scale, could be less than 0.25 acres (.01 ha) in size (emphasis added). This is an important concept when designing… forest conditions that are resilient to mountain pine beetle activity and yet capable of supporting goshawks and their prey."

Graham (2015) goes on to recommend a silvicultural system that, "Using Reynolds and others (1992) as a template,… create[s] and maintain[s] forest conditions for the goshawk and its prey…" Over a period of 100 years, the stand conditions under that developed recommendation never exceed 78 sq. ft. basal area.

[1] Graham, R. T., Bayard de Volo, S., & Reynolds, R. T. (2015). Northern Goshawk and its prey in the Black Hills: Habitat assessment. United States Department of Agriculture, Forest Service, Rocky Mountain Research Station. Accessed at: https://research.fs.usda.gov/treesearch/48665#

NLEB

We believe the BHNF should strongly consider the positive effects on northern long-eared bat populations along with the exceptionally low likelihood of directly harming any individuals due to the reduced presence across the US resulting from the fungal infection white nose syndrome. Extensive documentation shows NLEB benefit from forest management activities and we believe that the proposed activities in the SVMP, along with increased commercial activities to thin dense stands would provide long-term benefits to the species.

Past peer reviewed literature, along with FWS and FS analysis has found:

- "On the landscape scale, activities to make forested stands more resilient to catastrophic wildfires and insect and disease epidemics are likely to have an overall positive effect . . . ." Black Hills National Forest Draft BA at p. 76.

- "Vegetation management activities that lower tree density may have some positive effects on the bat (78 FR 61055)."

- "Studies have found that female bat roosts are more often located in areas with partial timber harvesting than in random sites, which may be due to trees located in more open habitat receiving greater solar radiation and therefore speeding development of young (78 FR 61060)."

- Cryan et al. (2001) found evidence of timber harvesting, often heavy, within all but three of the roost plots used by the northern long-eared bat in the southern Black Hills. Black Hills National Forest Draft BA at p. 78.

- Broders and Forbes (2004) discusses the negative correlation between roost sites and conifer cover and goes on to state, "A roost site was 24 times more likely to be in a shade-tolerant deciduous tree than a coniferous tree, and trees in the mid-decay classes were 5.2 times more likely to be used than live or recently dead trees."

- "Silvicultural practices could meet both male and female roosting requirements by maintaining large-diameter snags, while allowing for regeneration of forests. (78 FR 61060).

o "Fewer trees surrounding maternity roosts may also benefit juvenile bats that are starting to learn to fly". (78 FR 61055)

- "Cryan et al. (2000) found the relative abundance of reproductive females decreased as elevation increased in the southern Black Hills . . . . reproductive females may be constrained from roosting and foraging in high elevational habitats . . . ." Black Hills National Forest Draft BA at pp. 57-58.

- Northern long-eared bats roosted primarily in crevices in late-decay stage snags . . . . The mean decay stage of roost trees was 5.5 ±2 [1=alive 7=decomposed]. (Cryan 1997, Cryan et al. 2001).

- Cryan et al. (2001) concluded that timber harvest and tree thinning activities are not expected to decrease the long-term suitability of these areas as northern long-eared bat roosting habitat.

- "The effects from ground disturbance and habitat modification resulting from vegetation management treatments are likely to be insignificant in relation to prey availability or foraging habitat." Black Hills National Forest Draft BA at p. 79.

Timber harvest also benefits NLEB prey through habitat improvement which is likely to indirectly benefit NLEBs during the summer roosting season through similar mechanisms as described for prescribed burning (80 FR 18004, Lacki et al 2009).

Many peer-reviewed publications have found understory production and diversity are negatively related to overstory density (Smith 2011, Uresk et al 2000, Uresk and Severson 1989). Because of the limitations imposed on understory plant communities under dense forests, it follows that many other peer-reviewed publications have found understory production and diversity respond positively to forest management activities that reduce forest tree and canopy density (Stoddard et al 2011, Smith 2011, Dodson et al 2008, Logar 2007, Moore et al 2006, Griffis et al 2001, McConnell and Smith 1970). The scientific literature generally concludes that reducing forest canopy cover through mechanical removal reduces competition for resources and, at the same time, increases the abundance of certain critical resources including sunlight and water. These findings follow the described effects from prescribed burning where understory production, abundance, and richness are increased which, in turn, directly benefits prey species of the NLEB. Although it is difficult to quantify the positive effect from timber harvest on NLEB fitness resulting from increased prey availability, NLEB individuals will benefit from increased prey availability during the summer roosting season in areas where forest canopy cover has been reduced.

Other research point to increased insect abundance following implementation of ponderosa pine restoration (harvest/treatment) operations (Zhong et al 2006). Zhong concluded, "Creating a mosaic of heterogeneous landscape through mechanical fuel reduction treatments is an important management strategy to maintain high invertebrate species diversity in ponderosa pine forest ecosystems..."

We appreciate the efforts from the BHNF to analyze projects, such as the SVMP, at landscape scales to find efficiencies in planning. We look forward to working with the

BHNF on the SVMP to improve outcomes on the landscape, and we appreciate the opportunity to comment.

Thank you,

Ben Wudtke
Executive Director

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