



Insects, Disease, and Invasive Species

Comments and Responses on Draft Assessment



Black Hills aerial photo of mountain pine beetle impacts, 2009 (Photo credit USDA Forest Service)

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Introduction: Assessment Response to Comments

The Black Hills National Forest received a variety of public comments on draft assessments published in June 2022. Some commenters have expressed support for the draft assessments, while others have expressed concerns.

Those who express concern about the draft assessments often state that they believe the assessments do not go far enough in addressing the challenges facing the Black Hills; do not address the needs of local communities; or do not utilize the best available scientific information. Those that support the draft assessments often state that they are pleased with the level of detail and analysis that went into the assessments. They believe it will provide a good foundation for the need to revise the land management plan.

The Forest Service has reviewed all public comment received on the draft assessments and used this feedback to revise assessments where appropriate. The table below is a detailed summary of public comment received related to insects, disease, and invasive species as well as the agency's response to each item. Many responses indicate where the revised assessment has been modified to better explain each item, or incorporate new information as provided by cooperators or the public.

Each comment and response table is provided not as a matter of regulatory compliance, but as an effort to demonstrate the Black Hills National Forest's commitment to transparency early in the plan revision process. Some comments below have been generalized or combined with similar comments to provide a more efficient response. No attempt has been made to retain a link between each comment and individual, organization, or entity that provided it.

Response to Comments

Public Comment	Response
<p>Assessment is weak on impacts from invasive weeds following logging activities. Incorporate Black Hills National Forest Noxious Weeds Ecological Risk Assessment Report by Jack Butler.</p>	<p>Thank you for your comment. The draft assessment contains a citation and reference for the “Black Hills National Forest Noxious Weeds Ecological Risk Assessment Report” written by Wayne Landis. We believe this is the same report suggested by the commenter as Jack Butler was one of the principal investigators.</p>
<p>Grazing section mentions a list of activities that spread and establish invasive species. Avoid lists like these because they are not comprehensive (recreation, wildlife, etc. also spread). Recognize positive role grazing can play on reducing presence and spread of some invasive plants.</p>	<p>There are many vectors to spread and establishment of invasive species. The assessment also discusses impacts from recreation and other potential mechanisms. The Forest Service recognizes the role grazing can have as a tool for reducing weeds. The assessment acknowledges that livestock can help prevent the spread of some invasive species infestations.</p>
<p>This assessment needs information in the need for change section.</p>	<p>Thank you for your comment. A need for plan changes section has been added to the revised assessment.</p>
<p>The assessment should expand explanation of terrestrial invasive species which simply shows subjective areas of Good, Fair, Poor condition across Black Hills National Forest.</p>	<p>The purpose of the assessment is to provide a snapshot of current conditions. Map 7 shows watersheds with known locations of terrestrial invasive species. We look forward to working with stakeholders and the public to better identify the existing condition and potential plan content during the forthcoming plan development and NEPA phase of plan revision.</p>
<p>Why is the introduction of non-native cool season grasses listed under Insects and Disease?</p>	<p>Thank you for your comment. The revised assessment includes a change to the section title on page 8.</p>
<p>The bullet statement: “For all proposed projects or activities, determine the risk of noxious weed introduction or spread and implement appropriate mitigation measures and treatment” (Standards 4301). This is a good example of how good words in the Forest Plan can mean nothing when it comes to project design and implementation on the ground.</p>	<p>We look forward to working with the public on the development of standards, guidelines, and other plan content during the upcoming plan development stage of this process.</p>

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Zebra mussel recently was detected in Lake Pactola.	Thank you for your comment. The revised assessment includes this change in Table 2.
Smooth Brome hampers the ability of pine to regenerate and crowds out native forbs and grasses.	The revised assessment includes mention of this point. Thank you for your comment.
If acreage of invasives was 180,000 acres in 2015 as reported in the assessment, we project it is a larger acreage today.	Changes have been made to the revised assessment to incorporate more recent data where available.
We note the discussion about climate change. Regarding Mountain Pine Beetle, the forest already did go through a recent epidemic without the mitigating factor of extreme cold.	The draft and revised assessments include discussion about climate change under Landscape Influences on Ecosystems within the Forest.
The Crook County Natural Resource Management Plan includes the following and the Forest Service should be as consistent with their management prescriptions as allowed by law: Priority #11 Federal agencies should support the prevention and management of aquatic nuisance species (i.e., zebra mussels, quagga mussels) and other invasive species on waters within Crook County.	The Black Hills National Forest recognizes the important relationships with neighboring counties in Wyoming and South Dakota regarding invasive aquatic organisms and looks forward to further work throughout the plan development process. The Crook County Natural Resources Management Plan has been added as a reference in the revised assessment. The revised assessment recognizes the need to work with county resource agencies to provide a well-coordinated effort for ANS (Aquatic Nuisance Species) detection.
The Crook County Natural Resource Management Plan includes the Priority #15 - Federal agencies should rehabilitate forests and rangelands damaged by wildfires as soon as possible for habitat, wildlife, and to reduce the potential for erosion and introduction of invasive or noxious weeds.	The Black Hills National Forest will continue to rehabilitate and restore lands impacted by wildfire. Crook County Natural Resources Management Plan added in references, and we look forward to state and county coordination on this important issue.
More information needs to be collected to develop objectives and treatments effectively and accurately.	Plan development will include objectives and desired conditions and we look forward to more specific engagement on this topic.
More efforts need to be focused on the ips beetle as impacts merit more concern than what is identified in this document.	Ips beetle is an important invasive species, and its impact is disclosed and summarized in the revised assessment.

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<p>Coordination with State Agencies - The Forest Service admits that they have a lack of data and surveys as it pertains to invasive species. The agency should work closer with county weed and pest agencies or comparable federal and state agencies to assist with the identification of available data and management of insects, diseases, and/or invasive species.</p>	<p>The Black Hills National Forest recognizes and appreciates the work from counties and states to help identify, prioritize, treat, and rehabilitate areas impacted by invasive species. We look forward to continuing this discussion during the upcoming plan development phase. We are interested to see where efforts from states can be integrated into forest plan monitoring for weeds and pests. This coordination will better serve the constituents of these states as well as the broader public that enjoys the Black Hills National Forest.</p>
<p>The assessment references the impact of exceedingly cold temperatures on mountain pine beetles (MPB) but does not take into consideration the effect of high temperatures.</p>	<p>Most MPB research on temperature has been conducted on winter low temperatures and impacts on range and reproduction. We look forward to working with stakeholders and the public to evaluate best available scientific information regarding mountain pine beetles as we move into the plan development phase of the process.</p>
<p>Commenters encourage the use of native plant seed mixes in all restoration work. Noxious and invasive species are slowly replacing native forage for elk and other species and impacting forest resources. Native plant communities provide the highest nutritional value for wildlife.</p>	<p>Thank you for your comment. We look forward to working with stakeholders and the public for plan components that may address this concern during the upcoming plan development stage of the process.</p>
<p>Assessment needs more recognition of cheatgrass. Cheatgrass is identified in Ecological Integrity of Forested Ecosystems assessment as being present but not a major concern. This invasive can increase fire severity by increasing fine fuel loads and shortening the fire return intervals.</p>	<p>Thank you for the comment. Addition information on Cheatgrass increasing fire severity, fuel loads shortening fire return intervals incorporated into the report.</p>
<p>The maps are too broad of scale and the symbology makes interpreting them difficult. It is unclear with the attached maps (1-7) on what is causing the vegetation damage.</p>	<p>We are sorry that some members of the public may have had difficulty interpreting the maps. We did not see enough concern to justify reworking the maps at the assessment phase. More detailed maps will likely be produced with the draft Environmental Impact Statement stage, and we will strive to make them useful to a broad audience.</p>

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<p>The assessment states, “For updated reports of engraver beetle (<i>Ips</i> spp) occurrences, check the most recent forest health protection report (FHP).” The draft assessment does not cite this name.</p>	<p>The revised assessment does not use this report as a citation.</p>
<p>Narrative identifies outbreaks of Sulphur cinquefoil but only show a trace amount occurring in the Black Hills according to table 1.</p>	<p>No change was made to the revised assessment. Data provided only indicated trace amounts.</p>
<p>Kentucky bluegrass, smooth brome, and timothy will take extensive action to reduce populations. Even if you reduce populations for a few years, how will you manage it from coming back.</p>	<p>We look forward to addressing specific management actions and objectives during the plan development stage of the process.</p>
<p>It is not appropriate to compare the Great Basin cheat grass to the Black Hills cheat grass. The desert great basin zone of 6-12” annual precipitation with a sagebrush dominated ecosystem compared to the Black Hills in the Great Plains region listed by the Forest Service as 15-26” precipitation zone dominated by mixed prairie and ponderosa pine.</p> <p>The Black Hills National Forest needs to look at bulbous bluegrass spreading across the region. As a short-lived perennial with no grazing nutrition, it should be analyzed just as closely if not more than the annual cheat grass.</p>	<p>The revised assessment addresses comparison to Great Basin cheat grass.</p> <p>At the time of revising the assessment, we do not believe that bulbous bluegrass is a listed noxious weed in Wyoming or South Dakota (South Dakota State University Extension website updated June 23, 2023). However, we look forward to working with county and state partners to further understand the impacts of bulbous bluegrass which can become problematic in rangelands. Thank you for bringing this to our attention.</p>
<p>The assessment should explicitly discuss current management strategies that address climate change and adaptation. Are any invasive species particularly vulnerable to climate change-induced range contractions?</p>	<p>Climate change is primarily addressed in Landscape Influences on Ecosystems within the Forest. Additional information on climate change is included in the stand-alone climate change vulnerability assessment.</p>
<p>Citation needed - https://nca2018.globalchange.gov/chapter/22/.</p>	<p>Thank you. This citation was added for Climate Change Vulnerability in the revised assessment.</p>
<p>Figure displaying treatment acres shows decline. Is there any assessment of acres infested? How about through time? Is any of this effective?</p>	<p>Slight updates have been made to the revised assessment that update Figure 1 through 2022. Table 1 displays acres infested for common invasive weed species.</p>

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The assessment does not add evidence for the next phase of management plan revisions. Does this indicate we should keep things the way they are?	Assessments are intended to capture the status and trends of major topics. Management actions will be considered during the plan development stage of the process.
The state-listed noxious weeds for Wyoming and South Dakota should be listed in the assessment. Absinth wormwood (<i>Artemisia absinthium</i>) is SD state noxious and bull thistle (<i>Cirsium vulgare</i>) both occur widespread in the Black Hills National Forest and should be mentioned.	Thank you for the comment. The revised assessment has been updated.
Henbane in the Black Hills in <i>Hyoscyamus niger</i> .	Table 1 addresses Henbane, or <i>Hyoscyamus niger</i> and displays 952 acres infested.
The assessment should consider the list of invasive compiled from the Black Hills Invasive Plant Partnership (BHIPP). That will show a better need of why the forest needs to continue to build their noxious weed program. Some of these weeds mentioned in the BHIPP specifically on the forest but not in the assessment: Known isolated patches of <i>Centaurea jacea</i> , <i>Salvia pratensis</i> , <i>Hieracium aurantiacum</i> , <i>Ranunculus acris</i> , and <i>Cichorium intybus</i> . Found and treated <i>Hieracium caepitosum</i> and <i>Hieracium piloselloides</i> .	Thank you for your comment. Priority species identified by the Black Hills Invasive Plant Partnership (BHIPP) have now been added to assessment where appropriate. We look forward to working with BHIPP to develop potential management actions during the plan development stage of this process.
This document should lay out the evidence (either positive or negative) regarding the effectiveness of current management strategies. If current methods work, it should be evident. If not, evidence should support a proposed new management framework in the next phase of revision.	Thank you for your comment. Assessments are intended to document resource the status and trends. Effectiveness monitoring and management framework may be considered during the upcoming plan development stage of the process.
According to the Insects and Disease Assessment (pg. 9), there will be warmer temperatures, leading to earlier snowmelt, a longer growing season, increased fire frequency, higher fire intensity, and less extreme winter cold temperatures. There are no citations for any of that.	Thank you for this observation. A citation added for Climate Change Vulnerability in the Black Hills Document.

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<p>We recommend adding a “Need for Change” section, with a top priority to “update forest plan direction to significantly reduce the potential for future mountain pine beetle epidemics”.</p>	<p>Thank you for your comment. A <i>Potential Need for Forest Plan Changes</i> has been added to the revised assessment.</p>
<p>The estimate of over 180,000 acres of invasive species infestation is outdated. The 2018 - 2020 Invasive Species Action Plan states "It is estimated that the Black Hills is currently infested with 372,000 acres of noxious weeds (BHRL Project)."</p>	<p>The assessment was revised using updated data from the 2018 - 2020 Invasive Species Action Plan.</p>
<p>Mountain pine beetle discussion should include the impacts of the last epidemic 1996-2016 and also the efforts made by the agencies, local and state governments, organizations, and private property owners to battle this infestation.</p> <p>Would suggest that the Black Hills Regional Mountain Pine Beetle Strategy Collaborative Accomplishments 2012-2017 (BHRMPB report) in this assessment.</p>	<p>Thank you for your comment. The revised assessment includes the Mountain Pine Beetle Strategy Collaborative and the accomplishment report and considers this information best available scientific information.</p>
<p>Probably the most important lesson is that agencies need to address mountain pine beetle outbreaks early to prevent them from exploding in size. The Black Hills National Forest waited until 2012, which was the peak of the epidemic to get fully engaged in addressing the mountain pine beetles issues through the Mountain Pine Beetle Response Project (MPBRP).</p>	<p>Thank you for your comment.</p>
<p>Mountain pine beetle outbreaks, especially over large areas are an indicator that tree stocking levels are too high.</p>	<p>Thank you for your comment.</p>
<p>The notion that periodic mountain pine beetle epidemics are necessary to achieve high ecological integrity is absurd! Mountain pine beetle epidemics represent a failure of forest management.</p>	<p>Thank you for your comment.</p>
<p>Under Invasive Species, the Black Hills National Forest Invasive Species Action Plan FY 2018-2020 has more recent data and should be used. In 2018 only 3,671 acres were treated.</p>	<p>The revised assessment uses data updated per Black Hills Invasive Species Action Plan 2018-2020.</p>

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<p>Total acres of known acres of invasive weed species in Table 1 totals 371,924 acres and contradicts the 180,000-acre estimate given earlier in the assessment.</p>	<p>Thank you for this comment. Sources and numbers of acres updated to make document consistent and more accurate are part of the revised assessment.</p>
<p>Native cool season grasses, didymo, and red-rimmed melania paragraphs do not belong under the Insect and Disease Stressors portion of the assessment. If they are left in, you should adjust the heading to include invasive species stressors.</p>	<p>The heading in the revised assessment has been adjusted to better reflect this comment.</p>
<p>Other Invasive weeds that are currently in the Black Hills that pose a more immediate threat to the ecosystem than cheatgrass and should be mentioned. These invasive weeds are identified in Black Hills National Forest Invasive Species Management Plan 2018-20 along with the invasive plant priority management list developed by the Black Hills Invasive Plant Partnership.</p>	<p>Thank you for the comment. Changes were made to the revised assessment that recognize priority plants identified by the Black Hills National Forest Invasive Species Management Plan 2018-20.</p>
<p>A "What If?" section does not belong the assessment, it has no relevance to the current state of the forest service.</p>	<p>Thank you for your comment. This section has been removed from revised assessments.</p>
<p>Under the heading Invasive Species “Treat at least 8,000 acres...” is listed within a bullet point. This assessment should state how many acres are currently getting managed? Funding is well short of the 8,000-acre target.</p>	<p>Figure 1 displays acres of plant species managed through 2022. We agree there is often a disconnect between forest plan objectives and funding levels to carry out specific programs. We look forward to working with stakeholders and the public to identify reasonable objectives during the plan development stage of forest plan revision.</p>
<p>South Dakota Weed and Pest Commission has the authority to designate state and local noxious weeds. South Dakota Department of Agriculture and Natural Resources, along with county weed & pest boards have the authority to enforce state weed & pest laws. South Dakota Game, Fish, and Parks Commission has the authority and responsibility for managing ANS in the state's waterways.</p>	<p>Thank you for your comment. The revised assessment includes changes made to reflect correct agency responsibilities.</p>

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<p>The assessment should also include grazing permittees who rely on range conditions and carry capacity for their livelihoods with sportsman, outdoor recreation, and off highway vehicle (OHV) users.</p>	<p>Thank you for your comment. Some sections of the revised assessment were removed to better focus the attention on status and trend of the resource. We agree that all users mentioned in this comment have a role to play in the prevention of spread and potential mitigation measures for invasive species. Users are impacted in different ways that can include direct economic impacts.</p>