



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

Rocky Mountain Region / Black Hills National Forest

October 2023

Soils and Watersheds

Comments and Responses on Draft Assessment



Trees in a forest management area, Black Hills National Forest.
Photo courtesy of Black Hills National Forest Historical Collection, Leland D.
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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 soils and watersheds 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

Comment	Responses
<p>Grazing by domesticated animals and wildlife are not a "human" disturbance.</p>	<p>Wildlife removed from human-related disturbance throughout the assessment. Domestic livestock retained as human related disturbance due to the historic human introduction to the area.</p>
<p>Proper grazing activities are not considered a disturbance on the landscape and can often be beneficial in supporting productive watersheds and wildlife habitat by increasing plant diversity and animal species while reducing the threat of wildland fires and controlling invasive weeds. (grazing on public lands- The American Farm Bureau Federation https://www.fb.org/issues/other/grazing-on--public-lands/)</p>	<p>The assessment will be updated to reflect <u>improper</u> grazing management as a disturbance where appropriate.</p>
<p>Again, the Black Hills National Forest is describing grazing as a disturbance. The WDA does not support the language used in the assessments describing livestock grazing as a disturbance on the landscape. Proper livestock grazing management has the ability to increase soil productivity and mitigate wildland fire occurrences and severity by reducing fuel loads.</p>	<p>Grazing as a disturbance on the landscape for soils and watershed function is one of twelve indicators of watershed conditions and function in the US Forest Service Watershed Condition Framework. The Forest acknowledges that the disturbances can have both negative and beneficial effects to forest ecosystems and watershed functions.</p>

Comment	Responses
<p>Many livestock dams trap snowmelt and runoff and are not reducing flow to rivers or streams. Unless the Black Hills National Forest has data showing impacts to aquatic resources, small dams used for livestock watering should be removed from the discussion.</p>	<p>The Forest has data supporting the assessment. Forest data includes watershed GIS datasets, particularly streamflow and water impoundments, documenting partial to complete reduction in streamflow or capture of spring flow for a vast majority of the small impoundments on the Forest. Site inventories and assessments for individual springs, streams, and wetlands are also maintained by forest watershed personnel and include groundwater dependent ecosystems (GDE) and wetland surveys, watershed improvement needs assessments, and restoration projects. This data will be included in future decision making as the Forest moves into plan revision.</p>
<p>County Comprehensive Plans (CCP) for Wyoming Counties (Weston County and Crook County) have been left out of the list of counties with CCPs. Weston and Cook County CCPs should be included in the document. Wyoming Conservation Districts with Land Use Plans overlapping the Black Hills National Forest should be included and referenced in the assessment(s).</p>	<p>Thank you for providing this information and suggested plan inclusions for future analysis.</p>
<p>This section briefly describes instances when disposal of public lands may occur. The WDA does not support removing or reducing animal unit months (AUM) on forest service lands. If areas for disposal occur, we support continuation of equal numbers of AUMs for grazing livestock.</p>	<p>Thank you for expressing your concern. Livestock grazing management is addressed within the Rangeland Management assessment.</p>
<p>This reviewer is discouraged the Black Hills National Forest has not had a soil scientist on its payroll for a decade, perhaps a generation, or more. Hydrologists are not soil scientists. The Bureau of Land Management has a soil scientist in about every field office, in addition to hydrologists. The Black Hills National Forest must rise to the need.</p>	<p>Thank you for expressing your concern. We agree that specialist specific to their field of experience are a benefit to the Forest.</p>

Comment	Responses
<p>The documentation from the 1874 expedition shows the Black Hills National Forest streams flowed in late July and early August of 1874. Why? The ecosystem did not have millions of excessive, artificially fire-protected trees pulling moisture out of the soil. This reinforces my sustainable timber, and now, hydrology ecosystem carrying capacity argument in, Timber, above. The Black Hills National Forest hydrologist MUST determine and expound on a range of acceptable timber that sustains year-round stream flow. Hydrologists are not doing their job if they are incapable of determining such a range of acceptable timber per watershed to retain stream flow year-round. This assessment brings me to an assessment that the Black Hills National Forest ought to be managed by watersheds: for timber, grazing, recreation, wildlife, and hydrology.</p>	<p>Thank you for expressing your concern. Management goals and objectives will be addressed as the Forest moves through plan revision. The Forest strives to use the best available science when assessing appropriate management of both timber and aquatic resources.</p>
<p>The Figure 5 is near perfect, only needing an expansion including the Wyoming Black Hills National Forest. The Black Hills National Forest receives 50% of its annual precipitation from mid-March to mid-June.</p>	<p>Thank you for the recommendation.</p>
<p>The Black Hills National Forest hydrologists need soil moisture sensors that relay data to managers so that managers may close trail segments in order to reduce erosion.</p>	<p>Management tools and techniques are determined at more of a project level assessment but thank you for your recommendation of tools to use.</p>
<p>The need to focus firstly on valued natural resources such as soils and water that are the foundation of all ecosystems on Black Hills National Forest, and secondly on commodity production that flow from Black Hills National Forest ecosystems. Fresh thinking must put water and soil/geology resources (along with plant, animal, and all life) at the heart of high-quality existence of Black Hills National Forest into the future. Production of a commodity nature (e.g., timber harvest, livestock grazing, recreation, mining) must take second seat to protection and conservation of natural resources and ecosystems.</p>	<p>The Forest balances the management of these public lands for multiple uses and works to please all Forest visitors and users.</p>
<p>Black Hills National Forest notes in the assessment that Watershed Condition Framework (WCF) ratings were developed in 2010. Indicators were based on 2010 data that have not been updated across all WCF parameters. Like many other assessments, Best Available Science may have been used but results are questionable and/or inadequate due to age (more than 10 years old) or change in scope.</p>	<p>Thank you for your comment. We agree that updated information in all resource areas would be beneficial to this effort, however the 2012 Planning Rule encourages National Forests to use existing data for the assessment phase.</p>

*Black Hills National Forest
Response to Comments—Soils and Watersheds*

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<p>Black Hills National Forest notes in the assessment that Watershed Condition Framework (WCF) ratings were developed in 2010. Indicators were based on 2010 data that have not been updated across all WCF parameters. Like many other assessments, Best Available Science may have been used but results are questionable and/or inadequate due to age (more than 10 years old) or change in scope.</p>	<p>The Forest agrees that updated or more current data would be helpful in assessing current conditions. We also agree that the best available science was used to provide the most accurate information at the time of the assessment.</p>
<p>To improve these waters for use by humans and other Black Hills plants, animals, and aquatic species. The assessment provides some discussion of Needs for Change in the Conclusions. Unfortunately, the best recommendation for improvement is to follow Best Management Practices (BMPs). Black Hills National Forest should revisit Needs for Change and present ideas beyond applying existing BMPs.</p>	<p>Thank you for your review of the assessment and recommendation to look beyond best management practices when protecting our soil and water resources.</p>
<p>One area of great concern is Wetland Restoration. The description in the assessment is broad and fits with estimates of the need for wetland restoration on Black Hills National Forest.</p>	<p>Wetland restoration efforts could be done on a project level following Forest Plan guidance.</p>
<p>Black Hills National Forest needs a fresh focus on stewarding natural resource and intertwined ecosystem components and functions. Planning areas should develop goals for these and fit management/commodity activities in them in format and scope that lead to upward trends in soils and water condition. Monitoring, analysis, reporting and feedback into stewardship of resources and ecosystems, as well as continued management activities, must consistently occur.</p>	<p>Thank you for your recommendations. As the Forest moves into plan revision objectives and guidelines will be addressed for the protection of resources.</p>
<p>Add acknowledgement and safeguards for retaining the hydro-buffering qualities of non-vascular plants, particularly native pleurocarpous bryophytes like <i>Hylocomium splendens</i>, <i>Rhytidium rugosum</i>, and <i>Pleurozium schreberi</i> for steep slopes and streambank stabilization.</p>	<p>Consideration for safeguards of specific species and their unique habitat can be addressed on a project level basis.</p>
<p>Logging activities have caused significant and debilitating compaction of soils across the Forest. Directives in the Revised Forest Plan must include more strict objectives and guidelines to ensure that soils are given time to recover from management activities and not disturbed to such an excessive degree in the future. A reduction in roads across the system would help, but it will take a long time for soil health to improve.</p>	<p>Thank you for your recommendations. As the Forest moves into plan revision objectives and guidelines will be addressed for the protection of resources.</p>

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Response to Comments—Soils and Watersheds*

Comment	Responses
<p>There is an overall lack of using South Dakota Department of Agriculture and Natural Resources (DANR) and Natural Resources Conservation Service (NRCS) soils data throughout this assessment. The US Forest Service should use these data sources.</p>	<p>Thank you for your recommendation. These data sources are useful in our future analysis.</p>
<p>There are a few missing impaired waterbodies that should possibly be on the list. Not sure about jurisdiction for something like Center Lake. Maybe because it is in Custer State Park maybe they are not listing it. Cold Brook in the southern hills is listed for temperature and I do not see it on the list. There are also several streams and some lakes/reservoirs that are listed as impaired in the IR that are not on list in the report.</p> <p>Conditions and activities on upstream watersheds in the Black Hills National Forest may affect conditions in adjacent downstream HUCs.</p>	<p>Thank you for your research into impair water bodies of the Black Hills. The Forest agrees that all listed streams and waterbodies within the Forest administrative boundary (including private inholdings) or those that are near/adjacent to US Forest Service (FS) lands and receiving waters from the USFS lands are a contributing factor.</p>
<p>Recommend using the mapping tool on the Drinking Water website. It shows all drinking water systems. assessment contains only 7 of the roughly 150 systems.</p>	<p>Thank you for providing reference to this resource.</p>
<p>Page 25 first paragraph, in listing of non-consumptive use – Hydropower should be included.</p>	<p>Thank you for providing this additional non-consumptive use example for assessment of the Black Hills watersheds.</p>
<p>Page 30 - 2nd paragraph – not certain what “thermoelectric water users” are or what thermoelectric water users utilize water in the Black Hills National Forest. One may be electric producers like Black Hills Corporation, but their water rights are from groundwater.</p>	<p>Clarification and removal of thermoelectric water users has been made within the assessment.</p>
<p>Healthy watersheds are vital to everyone in the Black Hills. According to this assessment, “Preventing extreme wildfires is key to helping achieve fire resilient ecosystems.” We agree. According to the conclusions “Fire regime is rated Poor almost everywhere because of high fuel load, vegetation changes, and fire frequency, intensity, and severity,” and “[the Forest Health] indicator is low in the Black Hills National Forest because the insects and disease sub-indicator is “Poor” in nearly every sub-watershed.”</p>	<p>Thank you for your review of the assessment.</p>

Comment	Responses
<p>Timber harvest and prescribed fire are the two main available treatments to help reduce the potential for extreme fires and mountain pine beetle epidemics (which contribute to extreme fires) and achieve desired conditions. This assessment is much more assertive, and appropriately so, on reducing the potential for extreme fires and mountain pine beetle epidemics than the Forested Ecosystem Ecological Integrity and Timber assessments.</p>	<p>Thank you for your review of the assessment.</p>
<p>We recommend beefing up Need for Change #2 to include identifying specific changes in Vegetation variability that would improve fuel composition, fire frequency, fire severity, and fire pattern. We also recommend adding something to #1 about identifying plan components that would allow timber sale receipts to be used for road maintenance and improve hydrologic conditions.</p>	<p>The Fire and Fuels Assessment addresses the variables and indicators provided to address changes in vegetation variability. Timber sale receipts and their uses are assessed on a project action level.</p>
<p>In general, this assessment and the aquatic and riparian assessment imply that disturbance is usually bad. Disturbance needs to be put in context. This is a good place for a discussion about the difference in pulse verses prolonged disturbance, or the magnitude and timing of disturbance and how these types play out with channel evolution, recruitment of riparian plants. etc.</p>	<p>The intent of the assessment is to address current conditions on the Forest and determine any need for change in the Forest Plan during revision. Additional scientific supporting information would be found later in the plan revision process. Thank you for providing this information.</p>
<p>In general, the Forest Service has done a poor job of discharging their responsibility of monitoring these important factors. Long-term data sets are needed to determine trends especially of key factors of forest health. For example, Forest Service supports very few stream gages or monitoring wells.</p>	<p>The Forest agrees with the importance of monitoring to assess the health of its resources and makes every effort to incorporate this data into our decision making.</p>
<p>First utilize NRCS data bases, tool kits, programs, and State of South Dakota websites, Environmental Protection Agency (EPA), Fish and Wildlife Service (FWS) information. Some of this data is already collected and available for use and the author has not spent the time to look into it.</p>	<p>Thank you for providing these data sources.</p>
<p>The artesian spring area is defined by areas where the Madison Limestone and the Minnelusa outcrop, generally around the periphery of the Black Hills National Forest and where the Inyan Kara Group outcrops. Artesian springs are an important and substantial source of water for rivers and streams. The outcrops receive recharge but springs upwell through overlying formations.</p>	<p>Thank you for the provided information on outcrop recharge. The best available science for these formations is intended to be used during future decision making.</p>

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Response to Comments—Soils and Watersheds*

Comment	Responses
<p>The artesian springs are groundwater fed, so they are more stable. But actually, most vulnerable to expanded Madison pumping for municipal growth.</p>	<p>Thank you for providing this additional information for our consideration.</p>
<p>The only health-related constituents of concern in groundwater are naturally occurring radionuclides (i.e., radon, radium, thorium, and uranium) and manufactured radionuclides (i.e., technetium, plutonium, neptunium, and americium). Comment: Should include Iron and Arsenic here which are common in wells of the central core.</p>	<p>Thank you for providing this additional information for our consideration.</p>
<p>Well water is used for most consumptive water uses. Disagree with this. Household use is low in consumptive use while irrigation use is very high. Maybe what you mean is water withdrawn from an aquifer doesn't return to that aquifer but may not be consumptively used by loss to the atmosphere</p>	<p>Consumptive withdrawals consist of irrigation withdrawals along with other uses of well water.</p>
<p>Two of the large dams, Deerfield Lake and Pactola Reservoir, are managed and operated by the Bureau of Reclamation (USBR). Probably worth mentioning that Pactola and Canyon Lake are listed in the Army Corps of Engineer (USACE) inventory of dams as "high" hazard dams.</p>	<p>Thank you for providing this additional information.</p>
<p>No reference or catalog of existing water rights. What streams have historic water rights and how much of the streams flow is allocated.</p>	<p>This data was not included in the assessment and can be obtained through the state resource agencies. Additional analyses will be conducted during the National Environmental Policy Act (NEPA) phase of plan revision on key issues.</p>
<p>Water rights is a known data gap for the Black Hills National Forest. Comment: We do not agree with this statement. The State system is pretty well documented and maintained. Do you mean the reserve rights claimed by the Forest Service for administrative purposes?</p>	<p>The US Forest Service has an agency-wide water rights database which is being updated to reflect water uses on National Forest System (NFS) lands and to correct inconsistencies between Black Hills National Forest records and state data.</p>

Comment	Responses
<p>Fires provide several important benefits to a watershed including burning small shrubs and trees to keep overall fuel loads lower which decreases the risk of larger more intense fires. This is a gross generalization in need of clarification in terms of degree and type of fire etc. Fire can be good or bad. Author needs to clarify what type of fires is being described. In addition, there should be discussion about the immediate effects on soils by intense wildfires. Hydrophobic conditions, mass movement of soil and ash after fires should be discussed. These types of events occurred after the Jasper and Grizzly Gulch wildfires. There has been much written about damage done to municipal watersheds in Colorado after intense wildfires.</p> <p>In addition, there should be discussion about the immediate effects on soils by intense wildfires. Hydrophobic conditions, mass movement of soil and ash after fires should be discussed.</p> <p>There needs to be more discussion and description of the impacts of high intensity wildfires causing severe erosion events.</p>	<p>The Forest agrees that fire can be beneficial and harmful to the soil and water resources. As specific events occur appointed management programs have been developed known as the Burned Area Emergency Response to address these types of concerns.</p>
<p>With knowledge of the benefits of small, more frequent fires and the impairment caused by large crown fires, more recent fire management efforts include helping forests return to historic fire regimes through fuel reduction practices and controlled fires (Parrish et al. 1996). Why were forest management treatments not mentioned. Again, there are many studies out there that detail the benefits of forest management in watersheds.</p>	<p>Forest management and fire management are addressed in their own separate reports.</p>
<p>However, there is not a lot of data to help untangle the major risk factors that lead to high intensity fires. Data such as fuel moisture, conditions of fuels, relative humidity, wind, temperature, and fire behavior are more sparse than desired, as well as a lack of more detailed accounts of fire history. There is tons of data and research that details the major risk factors that lead to high intensity fires. This is incorrect and conflicts with previous statements above and below which lists many of these factors (factors are also listed in the fire and fuels assessments). There is sufficient data to make general conclusion about major risk factors. Many of the attributes cited are available through weather stations, correlated with fire history.</p>	<p>This information has been updated in our assessment.</p>

Comment	Responses
<p>Several years were particularly active or had very severe fires including 1890, 1911, 1931, 1959, 1960, 1974, 1985, 1996, 2000, 2001, 2002, and 2007 (Mattox 2009, Mattox 2012). It seems there has been a least one active year between 2012 and 2022, Is this information current?</p>	<p>This information has been updated in our assessment.</p>
<p>The mountain pine beetle (MPB) (<i>Dendroctonus ponderosae</i>) has minimal effects on the watersheds of the Black Hills National Forest. Maybe qualify by saying in the long term the effects are transitory.</p>	<p>This information has been updated in our assessment.</p>
<p>There is no discussion about pine beetle treatments and how these treatments further opened up forest canopy which resulted in more fine herbaceous fuels. The increase in fine fuels may change fire ignition and fire behavior which in turn may influence watersheds. Refer to Fire and Fuels assessment page 5. Some cross checking and cross referencing with other assessments should be done.</p>	<p>Thank you for your recommendation. Further assessment of mountain pine beetle can be found in the Insects, Disease, and Invasive Species Assessment.</p>
<p>The flow regime can change dramatically in both the short and long term when vegetation changes occur (clear-cutting, roads and infrastructure, fire, land use changes). This is certainly true and should be considered as an important benefit to timber harvest and stand management.</p>	<p>Thank you for your feedback and encouragement of further analysis.</p>
<p>Water regulation includes flow regime, thermal and light inputs, sediment flux, and chemicals, nutrients, and pathogens (Binder et al. 2017). Regulation is a word that implies humans are actually controlling water in some way. Only dams and diversions in my mind would come into this category for surface water.</p>	<p>The intent of this section is to address the direct effects of water regulation on a watershed.</p>
<p>Maintain enough water in perennial streams to sustain existing stream health. Return some water to dewatered perennial streams when needed. Comply with Section 505 of the FLPMA and 36 CFR 251.56 when issuing and re-issuing authorizations for water storage and diversion facilities (Forest-wide Standard 1210). This most important management action that the Forest Service can take to improve flow conditions is to maintain more open overstory and thin or control by fire the dense regrowth of Ponderosa Pine.</p>	<p>Thank you for your recommendation in management actions for the Forest to consider.</p>

Comment	Responses
<p>Minimize soil compaction by reducing off-road vehicle passes, by skidding on snow, frozen or dry soil conditions, or by off-ground logging systems (Forest-wide Guideline 1104). The all-terrain vehicle (ATV) or utility task vehicle (UTV) usage and its rapid expansion is probably the biggest threat to soils, erosion, sedimentation and stream health right now. Also, do not discount the airborne dust.</p>	<p>Thank you for providing your thoughts on additional impact stressors to our soil resources. The Recreation Assessment also addresses ATV and UTV usage on the Forest.</p>
<p>Historically, the landscape was a more open, savanna type landscape, and mature Ponderosa Pine stands were more widely spaced (less canopy density). This statement only applies to some of the Black Hills as is evidenced by Custer's photos. There are significant areas that were covered with even aged black bark or immature timber. See Dodge's report as part of the 1875 Jenny expedition</p>	<p>Thank you for providing the historical reference to landscapes of the Black Hills.</p>
<p>More water is expected to be lost than average to evapotranspiration during warmer summers, further stressing ecosystems. Since most water resources in the Black Hills National Forest are groundwater fed, there may be opportunities for water managers to alter current water operations. Comment: What operations? Seems like there should be a better term. Do you mean specifically to manage or enhance water resources? If so, enhancing recharge by managing overstory growth would be very helpful.</p>	<p>Updated to "water resources" within the assessment.</p>
<p>Mining operations and prospecting are not as prevalent as they once were, but they are still ongoing. There are three companies that are either actively drilling or planning exploration for gold mining in the Black Hills National Forest. Suggest this sentence be revised. Also, large areas are now under ownership or mining claims for lithium in Black Hills National Forest pegmatites. Forest Service has limited control or say in regard to mineral mining for those minerals under the 1872 mining law unless undue degradation can be proven and this is a difficult thing to prove given past legal history.</p>	<p>This information has been updated in our assessment.</p>
<p>Sediment and organic matter from stream and riparian habitats increase soil nutrients and rebuild wetlands (Binder et al. 2017). Comment: Should include the issue of continued expansion of groundwater pumping for municipal demand will at some point cause the diminishment of flow to springs.... a really important component of Riparian systems.</p>	<p>Thank you for providing this additional thought for consideration in our future assessments and as we move into plan revision.</p>

Comment	Responses
<p>In the assessment, recreation, municipal, and industrial usage are all addresses at length while irrigation is only mentioned in passing and on occasion. We would suggest inclusion and study of all surface water rights emanating from streams and rivers originating on the National Forest. A full inventory of the water rights whose watersheds are largely contained within the National Forest should be included in the final Forest Plan.</p>	<p>The US Forest Service has an agency-wide water rights database which is being updated to reflect water uses on NFS lands and to correct inconsistencies between Black Hills National Forest records and state data.</p>
<p>In the Best Available Science section, there is no reference or inclusion of information or data bases, on-line tools, and programs that have been created by USDA, NRCS.</p>	<p>The Forest recognizes the abundance of scientific information available and intends to use the best available as it relates to the proposed management action.</p>
<p>Mass wasting. Statement that there is little data is not accurate. According to the local Black Hills National Forest geologist there is a good deal of info. about locations of mass wasting events.</p>	<p>This information has been updated in our assessment.</p>
<p>Erosion Hazard identified as a data gap. NRCS has these areas mapped and Black Hills National Forest has used this data in the past. All of this can be easily queried from NRCS soil web mapper and other data bases. Refer to https://websoilsurvey.sc.egov.usda.gov</p>	<p>This information has been updated in our assessment.</p>
<p>Why not address the illegal off-road use that is rampant through law enforcement, education and coordination with community and user groups. This is the major source of soil compaction and erosion that is currently occurring.</p>	<p>More information on this topic can be found in the Recreation Assessment.</p>
<p>The reviewers found the repeated references about the lack of data to be unsubstantiated. The term data is lacking, appears repeatedly throughout the document. Given the tools and resources available, soils and watershed data can be easily obtained. Meaningful, insightful analysis and data queries can be done in a very short time. This assessment does not adequately address the subject matter given the research and reams of information that is easily accessed. We have found this pattern in other assessments but nowhere is it more apparent than in the soils and watershed section. In fact, some of the most well documented and researched local conditions can be found in the material covered in this assessment, yet the author repeatedly states data is lacking, field data collection is needed, or more data is needed.</p>	<p>Additional information has been included in the assessment. The Forest acknowledges the abundance of data available from outside agencies.</p>

Comment	Responses
<p>The assessment does not adequately address the Wyoming side of the Black Hills National Forest. This is reflected, among other places, in the maps presented, as Wyoming is omitted.</p>	<p>The Wyoming portions of the Forest will be considered in all portions of the future plan revision process.</p>
<p>The Department recommends that this assessment also discusses the merits of re-establishing beavers in relation to soils and watersheds and prioritizes their reintroduction as a restoration technique.</p>	<p>Thank you for providing this additional recommendation for a management action to consider. Actions such as these are typically considered on a project level basis.</p>
<p>In Wyoming, water rights are similar to those of many western states where the right is based on priority or prior appropriation; that is, whoever first put the water to beneficial use has the priority right to the water (Jacobs et al. 1995). Water rights in Wyoming are regulated by the State Engineer. The Forest Service has the authority to grant special use authorizations, which are legal documents e.g., permit, term permit, lease, easement) that allow occupancy, use, rights, or privileges on National Forest lands. The implementing regulations that guide how the Forest Service administers special use authorizations can be found in the Code of Federal Regulations (CFR) at 36 CFR Parts 25, 261, and 295.... Recommended Language: Article 8, Section 1 of the Wyoming Constitution states, "The water of all natural streams, springs, lakes or other collections of still water, within the boundaries of the state, are hereby declared to be the property of the state." Therefore, any impoundments or diversion of waters of the State will require proper permitting. The proponent is advised to contact the SEO [State Engineers Office] with specific plans for alterations or diversions to or from any stream channel in the State of Wyoming prior to commencing work.</p>	<p>Thank you for providing this detailed assessment of water rights for the State of Wyoming. The information provided will be reviewed for future development of the revised Forest Plan.</p>
<p>Include a more detailed breakdown of the WCF scores for each sub-watershed so that it is clear what indicators are contributing to the ratings in each sub-watershed.</p>	<p>This information has been updated in our assessment.</p>
<p>Include more details on what water quality data were used to complete the WCFs to draw the conclusions included in the assessment.</p>	<p>The most current data will be considered during the forest plan revision process in more detail.</p>
<p>Use the 2025 updates to the WCF in the Revised Forest Plan, rather than the 2010 data.</p>	<p>Additional language has been added to the assessment that addresses the reassessment of watersheds in 2025.</p>

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Response to Comments—Soils and Watersheds*

Comment	Responses
In addition to Figures 2, 3, 4, and 5, include figures showing monthly values for each year to better depict changes over time.	Additional citation was added to the assessment.
Review and potentially revise the sentence on page 17 that reads "Surface water quality is also generally good, meeting all the quality standards established for beneficial water uses." The assessment describes a number of waters that are impaired and that do not meet water quality standards.	This information has been updated in our assessment.