

**BEFORE THE UNITED STATES DEPARTMENT OF AGRICULTURE  
DATA QUALITY OFFICIAL**

BLACK HILLS FOREST RESOURCE  
ASSOCIATION

Petitioner

**Data Quality Act Challenge to U.S. Forest  
Service  
Correction of Information Presented in  
General Technical Report dated March 23,  
2021**

v.

U.S. FOREST SERVICE

September \_\_\_\_, 2021

Agency.

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**REQUEST FOR CORRECTION OF INFORMATION**

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USDA Forest Service  
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**I. Requestor/Petitioner**

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Organizational affiliation of person requesting correction: The BHFRA is a non-profit trade association of forest products manufacturers, forestry and timber harvest professionals, and concerned citizens in the Black Hills of South Dakota and Wyoming. Its mission is to advocate for responsible forest management that assures healthy forests and healthy communities for current and future generations. Holsinger Law, LLC, counsel for BHFRA, is submitting this Request on BHFRA's behalf.

## **II. Basis for Request for Correction of Information**

This Request for Correction of Information ("Request") is submitted pursuant to Section 515 of the Treasury and General Government Appropriations Act of FY 2001 (Public Law 106-554) ("Data Quality Act," or "DQA"), and the "Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information disseminated by Federal Agencies" (67 Fed. Reg. 8452 (Feb. 22, 2002)) ("OMB DQA Guidelines") and "Final Information Quality Bulletin for Peer Review (70 Fed. Reg. 2664 (Jan. 14, 2005))" ("OMB Peer-Review Guidelines") issued by the Office of Management and Budget ("OMB"), as well as USDA Peer Review Implementation Guidelines (2005),<sup>1</sup> and "Improving Implementation of the Information Quality Act" of the U.S. Department of Agriculture<sup>2</sup> ("USDA Guidelines"), which is also applicable to the U.S. Forest Service ("USFS").<sup>3</sup>

## **III. Introduction**

BHFRA hereby submits this Request related to the USFS final general technical report "A Scenario-Based Assessment to Inform Sustainable Ponderosa Pine Timber Harvest on the Black Hills National Forest General Technical Report" dated February 2021 and published March 23, 2021 (GTR-422)<sup>4</sup> ("GTR"). The GTR is said to "provide[ ] the context, rationale, and

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<sup>1</sup> <https://www.ocio.usda.gov/document/usdas-peer-review-guidelines>

<sup>2</sup> <https://www.ocio.usda.gov/policy-directives-records-forms/information-quality-activities>

<sup>3</sup> <https://www.fs.fed.us/qoi/>

evaluation of harvest level scenarios across a range of mortality and growth rates in the Black Hills...[and] provide[ ] scientific information that can inform discussions concerning future harvest levels on the Black Hills National Forest."<sup>5</sup>

The GTR was commissioned by the BHNF with set objectives, sideboards, and direction to the researchers (formally and informally) of what relevant information to consider and which information to exclude. As a result, and as discussed herein, the GTR is a deeply flawed document. The GTR authors rely on a simple equation: *sustainable harvest = growth – mortality*. But an equation is only as good as its inputs. And the inputs used in the GTR are deeply flawed. By relying on a fraction of the acres available for estimating timber resources, utilizing a significantly lower growth rate than actuality, and exaggerated mortality rates, the GTR misrepresents actual conditions of timber resources on the Black Hills National Forest (“BHNF”) and provides flawed information to decision makers. Reliance on the GTR has resulted in dramatic declines in timber harvest levels in the BHNF. This decline is counterintuitive to science that supports active, healthy and well-managed forests. Instead, the declining timber sales exacerbate pine beetle (“PB”) infestation and wildfire risk amongst these the worst wildfire seasons in the United States in recorded history. In addition, they harm BHFRA, its members, and the communities that depend upon active forest management. The Rushmore Forest Products mill in Hill City, South Dakota has already closed due to declining timber sales from the BHNF. That facility employed approximately 150 people in a community of 1,000 with a substantial minority population. To add insult to injury, this closure came amidst historic high prices for lumber. At least one additional mill is also likely to close in the first

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<sup>4</sup> Graham, Russell T.; Battaglia, Mike A.; Jain, Theresa B. 2021. A scenario-based assessment to inform sustainable ponderosa pine timber harvest on the Black Hills National Forest. Gen. Tech. Rep. RMRS-GTR-422. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 61 p.  
<https://doi.org/10.2737/RMRS-GTR-422>

<sup>5</sup> <https://www.fs.usda.gov/rmrs/sites/default/files/documents/GTR-422%20one-pager.pdf>

quarter of 2022 if the USFS does not retract the GTR and follow the best available science on the BHNF.

BHFRA respectfully requests the USFS retract the GTR. If the agency decides to later correct and re-release it, that release must be consistent with the tenets of quality, objectivity, utility, and transparency in the DQA.

#### **A. Background**

The BHNF is managed pursuant to the BHNF Land and Resource Management Plan 1997 Revision Phase II Amendment dated March 2006 (“RMPA”).<sup>6</sup> The RMPA aims to offer the allowable sale quantity (“ASQ”) of 181,000 ccf [1 ccf = 100 cubic feet.] of sawtimber from suitable lands per decade. RMPA at I-14. The RMPA was prepared in accordance with the National Forest Management Plan (“NFMA”) and the National Environmental Policy Act (“NEPA”). As the RMPA states:

NFMA requires that resource plans and permits, contracts, and other instruments issued for the use and occupancy of National Forest System lands be consistent with the Forest Plan. Site-specific project decisions must also be consistent with the Forest Plan, unless the Forest Plan is modified by amendment.

Between 2017 and 2019, the Forest Inventory and Analysis (“FIA”) branch of the USFS collected data for the BHNF.<sup>7</sup> The FIA data was released to the public January 27, 2020.<sup>8</sup> During the collection of data by FIA, and after an initial internal report from Rocky Mountain Research Station (“RMRS”) to the BHNF, “The Black Hills National Forest leadership asked the [RMRS] to assess trends in standing volume, growth, mortality, and the implications of various harvest levels to better understand sustainable harvest options.”<sup>9</sup> In April 2020, the RMRS produced a

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<sup>6</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd592921.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd592921.pdf).

<sup>7</sup> FIA collects and houses the USFS data used in the GTR and the BHFRA report referenced herein.

<sup>8</sup> <https://usfs-public.box.com/v/BlackHillsFIAData>.

draft report entitled “Timber Growth and Yield in the Black Hills National Forest: A Changing Forest,” which was a general technical report (“Draft GTR”). As stated above, the final GTR was published March 23, 2021. Both drafts of the GTR were prepared by Russell T. Graham, Mike A. Battaglia, and Theresa B. Jain, Research Foresters (Silviculturists) with the RMRS, USFS.

## **B. GTR is Based on Incorrect Assumptions and Inappropriate Use of Data, Which Produces Inaccurate Scientific Information**

Although General Technical Reports are intended to be centered in science and the scientific process, the GTR contains numerous errors grounded in faulty data, analysis, and assumptions. Many of these errors were identified in comments to the authors but were not addressed in the final report. Some of these errors include:

1. The authors of the GTR fail to analyze the overall subject they were tasked with addressing. This is true across multiple issues including: A) By excluding available timber resources and B) through a series of faulty assumptions and arbitrary exclusion of available timbered acres.

Within the GTR and the authors’ “reconciliation of comments” (“Reconciliation”),<sup>10</sup> they regularly cite their task of establishing a sustainable harvest program for the BHNF. That task from the BHNF to the authors, as provided in the GTR, is:

- a) What impact does the current 2019 forest condition (i.e., standing volume, mortality, and growth) have on the out-year timber program of harvesting at current levels compared to other harvest level scenarios using probable growth and mortality estimates?
- b) What is a sustainable timber harvest estimate for the BHNF using the

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<sup>9</sup> <https://www.fs.usda.gov/rmrs/science-spotlights/sustainable-timber-harvest-black-hills-national-forest>

<sup>10</sup> USFS Reconciliation of Comments for RMRS-GTR-422: A Scenario-Based Assessment to Inform Sustainable Ponderosa Pine Timber Harvest on the Black Hills National Forest (June 24, 2021), available at: [https://www.fs.usda.gov/rmrs/sites/default/files/documents/Reconciliation\\_comments\\_FINAL\\_210707.pdf](https://www.fs.usda.gov/rmrs/sites/default/files/documents/Reconciliation_comments_FINAL_210707.pdf).

2019 NRS-FIA data assuming rational tree mortality and growth rates informed by those of the past?

c) What would be the standing inventory volume necessary using reasonable growth and mortality estimates to sustain a sawtimber allowable sale quantity (ASQ) of 181,000 CCF?

However, as pointed out in comments submitted by BHFRA and others, the authors failed to incorporate any spruce trees into their estimates. This is evidenced by the authors in their reconciliation document, when responding to the comment of suggesting inclusion of spruce, with their response of “Ponderosa pine was the species that was of most concern given the most recent MPB and wildfires. For RMRS-GTR-422, we were asked by the BHNF to just focus on this species.”

The task, as written, makes no mention of excluding spruce trees from their estimates. Spruce contributes to the ASQ in the current RMPA and is expected to continue contributing to the harvest program into the future. As the authors regularly frame the issue as what timber inventories and growth are necessary to meet the ASQ, exclusion of spruce resources becomes a critical oversight.

Further, the authors felt spruce was important enough to include from previous inventories in table 1 which were used to compare to current numbers showing only ponderosa pine. In its comments, BHFRA highlighted the inconsistency and recommended excluding spruce from previous inventories or including it in present inventories. In response, the authors stated “RMRS-GTR-422 was intended to address the sustainability of ponderosa pine sawtimber. However, we recognize that white spruce could

contribute to ASQ and the timber sale program. In table 4, we highlight which years included white spruce and ponderosa pine in the volume estimates versus those that only report ponderosa pine.”<sup>11</sup> Again, the authors acknowledged that spruce contributes to the ASQ in their response to comments, but they continued to exclude it from any analysis in the GTR. Exclusion of spruce trees from the analysis in the GTR is contrary to the standards of the DQA and would be firmly grounded as arbitrary and capricious in a NEPA document used for these discussions and decisions.

Additional exclusions of available resources, within the GTR, can be found in the decision to utilize only a subset of the suitable base. First, this assumes the suitable base will never change over the 80 years of estimates in the GTR despite the current RMPA undergoing a formal revision process to account for such changes, amongst other things. Additionally, this effectively excludes extensive amounts of timber that are not withdrawn statutorily or by the current RMPA and are available for harvest. Although the acres available outside the suitable base would not contribute to the ASQ, they do contribute to a sustainable program. This is especially true given the overstocked nature of many of these acres, as the BHNF has acknowledged and was recently highlighted in a joint letter to the BHNF from the State Foresters of Wyoming and South Dakota. *See* attached **Exhibit A** attached hereto and incorporated by this reference. In fact, the BHNF is already harvesting, to some degree, outside the suitable base. This issue was raised by BHFRA and others in comments and, the authors’ responses indicated they were directed to look

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<sup>11</sup> *See* Reconciliation at 84.

exclusively at the subset of the suitable base they used. We find no language in the task from the BHNF to the authors that would direct or indicate the authors should exclude other areas of available timber that are available to contribute to the timber sale program on the BHNF.

2. The GTR, at its core, is projecting sawtimber (trees 9 inches and greater diameter at breast height (“DBH”)) resources on the BHNF using three variables, including growth.<sup>12</sup> However, the GTR does not use sawtimber growth rates to project sawtimber growth. Instead, it relies on much smaller trees down to 5 inches. On page 28 of the GTR it states, “The growth rates were the average annual gross growth as a percentage of the standing live volume for merchantable ponderosa pine trees > 5 inches d.b.h. (table 4). Growth rates for the > 9 inches d.b.h. were not used due to the lack of historical data.” These smaller trees are often suppressed under the canopy of the sawtimber trees and, as a result, do not accurately reflect true sawtimber growth rates.

Importantly, FIA has been tracking annual sawtimber growth rates on the BHNF since 2000. These actual sawtimber growth rates were presented to the GTR authors in comments from BHFRA that were affirmed by FIA staff with a written review. In that review, the FIA affirmed that: “[I]t is possible to reproduce the [growth] estimates” and that those estimates “yield an unbiased estimate [of sawtimber growth]”. At the same time GTR authors claimed there was a lack of reliable historical (pre-2000) data regarding sawtimber growth

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<sup>12</sup> All three variables are: starting timber inventory, gross growth rates as a percent of inventory, and mortality rates as a percent of inventory.

rates, they ignored the previous 19 years of available sawtimber growth rates on the BHNF which were provided in comments submitted by BHFRA and subsequently affirmed by FIA. Alison Hill, USFS Research Program Manager for the RMRS stated via email that, “I know our authors have seen the report.” Despite having seen the report and acknowledging the need for better information, the authors of the GTR did not use or otherwise disclose the existence of the sawtimber growth rates from 2000-2019 and, instead, relied on growth rates for trees down to 5 inches in diameter that included areas outside the Black Hills such as the “short pines” region in northwest SD.

3. The authors of the GTR do not adequately disclose or discuss uncertainties with or implications from their chosen methods or data relied upon for their results. Scientific documents typically include a methods section which should include, among other things, a description of the methods for data collection, data analysis, errors associated with means, and other information that aids in establishing relevance of the science or any concerns that should be considered in application. This section is noticeably absent from the GTR. As a result, the GTR fails to indicate that only 253 trees were used when calculating growth for the BHNF in 2019,<sup>13</sup> fails to disclose any methods or rationale for excluding other trees which had repeated measurements for establishing growth or why/how those 253 trees were chosen from an FIA database with 2,400 FIA tree records of live growing stock trees and associated growth measurements. Without this critical information, the results

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<sup>13</sup> See April 30, 2021 USFS Timber Stakeholders Chat Transcript at page 4, available at <https://usfs-public.app.box.com/s/soqb4u5tlv6djnvs10q0m7lxdaxzn1/file/648972344880>.

in the GTR are potentially flawed and biased and are subject to misuse and misinterpretation.

4. The GTR draws from partial datasets, mixing and matching in a manner that is not scientifically supported. On page 18 of the GTR, when discussing the historic (pre-2000) data, the authors make the statement, “This doesn’t negate the data from [historic] periodic inventories, since it is the best available information from that time, *but it does suggest that users of this older data need to be careful in its interpretation and not use it to quantify trends.*” (emphasis added.) However, the GTR authors rely almost entirely on that historic data to not only identify trends in tree growth but to then project those trends into the future—all the while ignoring more recent and accurate information on sawtimber growth rates on the BHNF. In other portions of the GTR, the authors assert that historic data is not appropriate for use and make assumptions regarding, among others, future mortality rates based on data from other regions of the United States.
5. As part of the background and rationale supporting the flawed conclusions in the GTR, the authors cite a near 50 percent decrease in timber resources on the BHNF from the all-time high for timber resources in 1999 to the estimate for 2019 (figure 11). This comparison is substantially flawed because the GTR only reviewed timber resources on approximately 60 percent of the acres used for the 1999 estimate. Although the GTR provides footnotes in reference to figure 11, the GTR does not include any substantive discussion of the differences in land area or what impact that may have on proper interpretation

or application of the information in the figure. This issue was also highlighted, by numerous parties, in comments to the authors. By not differentiating these acreages, the GTR is, at best, confusing to any reader and, at worst, misrepresenting important data to decision makers.

6. The authors of the GTR settle on “reasonable” estimate of a mortality rate, representing current rates and into the future, that mirrors the rate in the 2011 report of FIA data by Walters et al. (2013). However, that report represents the impacts of the Jasper, Ricco, Roger Shack, Battle Mountain, and other fires in combination with the PB epidemic which had been running since 2000. Basing immediate and long-term mortality trends on a report that contains mortality from the largest wildfire in recorded history in the Black Hills, three other large fires, and 11 years of pine beetle mortality is illogical when looking at the long-term trends outlined in table 1. There has not been a large fire on the Black Hills National Forest in nearly a decade, and it has been more than 15 years since a large fire burned any significant portion of the suited base. The pine beetle epidemic was declared "over" 4 years ago with only 20 acres of pine beetle damage recorded during the last aerial survey." Despite the most recent mountain pine beetle epidemic being declared “over” 5 years ago on the BHNF, the authors use a mortality rate that makes the assumption the BHNF is currently plagued by a mountain pine beetle epidemic. Recent and relevant data was presented in comments from numerous parties, including State forestry agencies, highlighting this flaw. Contrary to the GTR, there are currently exceptionally low mortality rates on

the BHNF. Further, for a continuous period of more than 40 years, before the mountain pine beetle epidemic, the mortality rate on the BHNF was reported as ranging between 0.16 and 0.26 percent. These rates accurately reflect current conditions but were deemed “unreasonable” by the authors, thus eliminating flexibility for agencies to apply any adjustments to reflect current conditions.

7. By relying on a fraction of the acres available for estimating timber resources, utilizing a significantly lower growth rate and exaggerated mortality rates, the GTR misrepresents actual conditions of timber resources on the BHNF and provides flawed information to decision makers with the potential for serious, negative impacts to forest health on the BHNF and the companies and communities that depend upon it.

**C. The GTR is functioning as a decision document.**

While the March 23, 2021 USFS press release states that the “GTR is a scientific document, not a policy or decision document,”<sup>14</sup> the draft and final GTRs have served as the basis for substantive decision-making on the part of the USFS. As a result of the GTRs, timber harvest and sales have been drastically—and contrary to requirements imposed by NEPA and NFMA—reduced in the BHNF. The GTR cannot function as a decision document, in any capacity, without NEPA compliance.

The Final GTR is premised on the faulty assumption that “[t]he current harvest level in the BHNF Forest Plan of 181,000 CCF/yr is not a sustainable option.” Final GTR at ii, 1. As a result, the Final GTR erroneously concludes that “because of declining standing live tree volume, we assumed that harvest levels would not be able to increase but rather there may be a

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<sup>14</sup> <https://www.fs.usda.gov/rmrs/science-spotlights/sustainable-timber-harvest-black-hills-national-forest>

need to decrease harvest levels to identify a reasonable sustainable harvest of sawtimber for the short- and long-term.” *Id.* at 29.

The USFS has indicated its decision to decrease timber harvest and sales in stakeholder meetings, verbal communication, and correspondence with BHFRA. Furthermore, the sole document provided for consideration during the stakeholder meetings and correspondence was the draft GTR. The BHNH held stakeholder and local government official meetings on the GTR on April 3, April 10, May 1, and May 15, 2020.<sup>15</sup>

As an example, the Draft GTR was the only document provided for discussion during the April 3, 2020 meeting. During the April 3, 2020 meeting, Jennifer Eberlien, Acting Regional Forester, made the following statement:

We’re collecting the data and presenting it that we all agreed would be collected. We’re sharing that data with all the stakeholders to get that additional input. The data that will be presented, that you’ve already seen, will be presented and discussed today represents scientifically and statistically supportable information that we’re gonna use.... [discussion on research station data collection/sharing]. So we agreed that the data and the subsequent analysis would inform our decision-making today and that, today, starts, marks the start of this process.”

April 3, 2020 meeting between 9:30 and 12:30 minute marks.<sup>16</sup>

There are numerous other examples in those stakeholder meetings of USFS officials making similar statements about the FS making “decisions” based on the GTR. The April 10, May 1, and May 15 meetings contained similar discussion of using the data (from the GTR) to inform the decision-making process going forward and numerous instances in which USFS officials made similar statements regarding the USFS making “decisions” based on the Draft GTR. We understand no other information was provided during the stakeholder meetings to “help inform a decision” other than the Draft GTR.

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<sup>15</sup> <https://www.fs.usda.gov/detail/blackhills/landmanagement/resourcemanagement/?cid=fseprd731012>

<sup>16</sup> <https://usfs.adobeconnect.com/pf84e9rqbh6f/?launcher=false&fcsContent=true&pbMode=normal>

On April 15, 2020, the Black Hills National Forest Advisory Board (“NFAB”) was tasked to develop a recommendation for a maximum sustainable harvest level, based solely on the recommendations in the draft GTR.<sup>17</sup> The recommendation was to be based on the FIA data set released in January 2020 and the conclusions in the GTR based upon it in addition to other considerations and assumptions.<sup>18</sup>

On September 16 and on October 21, 2020, the NFAB provided two recommendations. The first advised that “given the scope of changes that have affected the BHNF, and the requirement that Forest Plans should be revised every fifteen years...the BHNF [should] begin the Forest Plan revision process as soon as possible.”<sup>19</sup> The second recommendation was that the BHNF not reduce the sawtimber sale program below the ASQ of 181 million cubic feet (181,000 ccf) of sawtimber for USFS fiscal years 2022-2027.<sup>20</sup>

*i. Timber Harvest and Sales have Decreased*

A graph generated from USFS cut and sold reports depicts dramatic declines in timber sales subsequent to the release of the GTR. See attached **Exhibit B** attached hereto and incorporated by this reference. Exhibit B shows the total timber sale volume sold versus the ASQ since the current RMPA was adopted (annual targets are not shown on this graph). Timber sales starkly decreased subsequent to the preliminary draft GTR delivered to the BHNF and further after publication of the Draft GTR in April 2020.

Since the release of the GTR, the BHNF has consistently failed to meet timber harvest targets in the forest plan. Only purposeful reliance on the GTR can account for these failures. Other National Forests that failed to meet their targets had breaking wildfires or circumstances

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<sup>17</sup> It was also tasked to provide a recommendation as to the need for, and timing of, a forest plan amendment.

<sup>18</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd738034.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd738034.pdf).

<sup>19</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd760068.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd760068.pdf).

<sup>20</sup> [https://www.fs.usda.gov/Internet/FSE\\_DOCUMENTS/fseprd884475.pdf](https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd884475.pdf).

related to COVID-19, e.g., where the USFS offered timber for sale but it was not bid on. No such issues faced the BHNF. **Exhibit C**, attached hereto and incorporated by this reference is a chart showing Fiscal Year 2020 timber sales compared to timber targets from several National Forests including the BHNF. As Exhibit C depicts, timber sales from certain National Forests exceeded targets, despite wildfires or decreased bids (e.g., Bighorn National and Medicine Bow-Routt National Forests). Decreased sales in the BHNF were the result of the GTR—not wildfires, budget or the results of COVID-19. Instead, the USFS held multiple meetings aimed at discussing reductions to the timber sale program in the BHNF. The decrease was almost exclusive to the BHNF, despite COVID-19 impacts being greater in other National Forest areas.

#### **D. National Forest Advisory Board Recommendation**

In a similar manner as when the BHNF commissioned the GTR from the RMRS, the BHNF also tasked the NFAB to provide the Forest a recommendation on a sustainable timber sale program, as discussed previously herein. The working group leading the data analysis and drafting of the recommendation included members from South Dakota and Wyoming forestry agencies including State Forester Greg Josten who chaired the working group, a Certified Forester, Certified Arborist and state legislator, and two individuals representing environmental group interests on the NFAB. After nearly seven months of thorough data analysis, including current and historic FIA data, the NFAB formally approved a recommendation to the BHNF that a sustainable sawtimber sale program should be 181,000 ccf annually (the current ASQ) and identified timber resources that could be used to increase the program. The NFAB recommendation was approved four to five months before the GTR was finalized but was not utilized by the authors of the GTR or mentioned.

Importantly, the NFAB implemented the same sustainability equation used by the authors of the GTR. However, the NFAB recognized some of the same shortcomings in historic FIA data and, instead, relied on the sawtimber growth rates of more than 3 percent as validated by FIA and more reasonable mortality rates based on recent surveys and data. Although the NFAB presentation highlights the mortality rate used in their recommendation was increased from their previously approved rate as a compromise to gain support from various interests, but the increase was not based on science.

At the least, authors of scientific reports such as GTRs should acknowledge and describe other works in the same subject area. Scientific publications should not have the luxury of ignoring and not acknowledging opinions that are counter to the authors own. By not acknowledging the existence of the NFAB recommendation, the authors do not provide the reader adequate context and information to make informed decisions.

#### **E. BHFRA Report**

Consultants Steve Scharosch (Abacus Enterprises), Dr. Mike Huebschmann (Huebschmann & Associates), and Tom Montzka (Straight Arrow Consulting) prepared a report dated July 15, 2020, which was entitled “Review of Black Hills National Forest 2017-2019 Augmented FIA Inventory Results” for the BHFRA (“BHFRA Report” or the “Report”), attached hereto and incorporated by this reference as **Exhibit D**. This report has been independently produced and reviewed by all three of the well-qualified consultants (all hold M.S. or PhD degrees and whose clients have included the US Forest Service). The results are supported by hard copies of EVALIDator runs and other available information. On August 3, 2020, Ben Wudtke, Executive Director of BHFRA, provided the BHFRA Report to Alison Hill, USFS Research Program Manager for the Rocky Mountain Research Station via email and asked

that this new information be included as an addition to BHFRA's comments on the Draft GTR. On August 3, 2020, Ms. Hill stated: "I know our authors have seen the report. ¶ I understand you want us to accept this new comment under our public/stakeholder comment period; but as you know the comment period is closed." See **Exhibit E**, "Email Correspondence re BHFRA Report," attached hereto and incorporated by this reference. Ms. Hill continued in her email, "Can you tell me if the report underwent a rigorous review and what that review entailed?" Ms. Hill's question regarding review indicates that the FS may be inclined to accept certain types of information or information from certain individuals/groups after the comment deadline.

## **V. Findings of the BHFRA Report**

As stated previously herein, the BHFRA Report reviewed the same FIA data used in the GTR. The Report noted, however, that "[n]umerous issues, concerns, and uncertainties were uncovered" which "cast doubt on the accuracy of the reported inventory results." Report at 4. The BHFRA Report and NFAB recommendation accurately reflect conditions in the BHNF and should be relied upon as the best available science.

As an example of issues found in the GTR, using FIA data, the BHFRA Report determined that, since 2000, the sawtimber trees in the area analyzed in the GTR have been growing at a rate of greater than 3%.<sup>21</sup> This result was later supported in writing by FIA in its September 2, 2020 "FIA Responses to 'Review of the Black Hills National Forest 2017-2019 Augmented FIA Inventory Results' Report," attached and incorporated by this reference as **Exhibit F**. See Concerns 12-13. Growth rates have a profound effect on the results of sustainable timber harvests. However, when presenting the Final GTR, the USFS stated (notwithstanding ample evidence) that 3% growth had never been reported on the BHNF and that that percentage

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<sup>21</sup> BHFRA compiled this information and more in a report it provided to the USFS as discussed more fully below.

was not used in any of their scenarios. Instead, the agency opted for the erroneously lower growth rate from the GTR.

Other significant issues with the GTR described in the Report include:

- Acreage estimates in prior FIA inventories remained fairly constant but began dropping after the BHNF initiated the augmented FIA inventory in 2017 – even though to the best of our knowledge there have been no sizable land sales or exchanges during this period that would have changed acreages as depicted in this more recent FIA-based data.

*[Table re: “Annual % Difference in Reported Acres Compared to Average 2010-2016 Reported Acres, by Inventory Year” omitted herein.]*

- There is a large degree of uncertainty in the estimated volume inventory and growth estimates. For example, looking at the estimated growth of sawlog volume on sawtimber trees; even though the total net growth estimate is a negative value (-28,000 CCF) the 95% confidence limit indicates the actual growth could be anywhere from negative 107,000 to positive 51,000. When making decisions based on such an estimate, it is imperative to recognize the large degree of uncertainty associated with the estimate. FIA staff, in their written review of the BHFRA report, agreed with the importance of disclosing these levels of uncertainty (see review item number 12).
- A gross annual growth rate of greater than 3% is much more defensible as a long-term growth estimate than the 2.5% that was computed using the 2019 augmented data set. The 3% growth rate is grounded on multiple recent observations and mitigates the effects of incorrect acreage estimation in the 2019 augmented data. In addition, gross annual growth estimates derived from 2019 on-line FIA data, using ratio estimates based on an acreage that aligns with the NEPA-approved suitable base acres, is 3.04%. These estimates of 3% and 3.04% annual growth are for South Dakota acres only; also, the augmented data set, even with its deficiencies, indicates gross annual growth is higher on Wyoming suitable base acres than on South Dakota acres, which means a 3% growth rate is likely conservative.
- Forest growth simulations conducted using the USFS Forest Vegetation Simulator (FVS) showed annual mortality rates for suitable base timberlands of 0.23%; less than a quarter of the value used in the draft and final GTR.
- The FIA database flag that indicates whether an FIA plot is contained within the BHNF suitable base acres is being incorrectly applied to the entire cluster of four subplots that comprise an FIA sample point, rather than to each individual subplot. This is at odds with how the timberland flag, accessibility flag, reserved status flag, and growth potential flag are applied – all of which are assigned at the subplot level. Classifying all subplots as a group to either the suitable or non-suitable category could cause significant inaccuracies in acreage and volume estimation. There is no USFS documentation available that details how a cluster of four plots is assigned its suitability flag (by the center of the four-plot

cluster?, by the majority of the sub-plot locations?, by some other means?), nor is there any justification for why this flag should be assigned differently than the timberlands flag, at the subplot level. This context is missing from discussion in the GTR.

- Analyzing the sawlog percent volume defect by tree DBH class in the 2017-2019 BHNF augmented FIA database showed that the 29+” DBH class for ponderosa pine, and **every** DBH class for white spruce had the identical defect percentage value of 11.78%. We can find no USFS documentation explaining why this fixed defect value is being applied, or how it was derived. This context is missing from discussion in the GTR.
- By accelerating permanent plot remeasurements in 2017-2019, the growth period has been halved, resulting in the need to accurately measure diameter growth of 0.25 inch or less. In such circumstances, the relative impact of measurement error increases greatly, and the slightest inaccuracies in field measurement (e.g., the diameter tape placed too high/low, at an angle, over a loose piece of bark, etc.) have the potential to substantially affect growth estimates. This context is missing from discussion in the GTR.

## **VI. Information to be Corrected**

### **A. Description of Information to Correct**

- i. The report to be corrected is: Graham, Russell T.; Battaglia, Mike A.; Jain, Theresa B. 2021. A scenario-based assessment to inform sustainable ponderosa pine timber harvest on the Black Hills National Forest. Gen. Tech. Rep. RMRS-GTR-422. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 61 p. <https://doi.org/10.2737/RMRS-GTR-422>.
- ii. The specific information for which a correction is sought is identified in the BHFRA Report and NFAB recommendation and is summarized as follows:
  - a. Arbitrary exclusions of available timber for harvest on the BHNF from spruce and timberlands outside the suitable base in the current RMPA.
  - b. Incorrect sawtimber growth estimates
  - c. Incorrect application of high mortality rates and labeling of “rational” mortality rates.

- d. Incorrect exclusion of plausible scenarios with observed lower mortality and/or higher growth rates as “unsustainable”.
- e. Incorrect/inconsistent suitable base flag
- f. Thorough explanation of methods, including the use of a fraction of trees with available growth information, among others.

**B. Explanation of Noncompliance with OMB and/or USDA Information Quality Guidelines**

The OMB's April 24, 2019 memorandum "Improving Implementation of the Information Quality Act"<sup>22</sup> states that: “OMB policy emphasizes that, when data are made available to the public, potential users must be provided with sufficient information to understand which agency is responsible for the quality of the data being disseminated, *as well as the data's strengths, weaknesses, analytical limitations*, security requirements, and processing options. (emphasis added). Further, the memo included updated guidance that “Scientific Integrity, agencies should ensure that influential information is communicated transparently by "including a clear explication of underlying assumptions, accurate contextualization of uncertainties, and a description of the probabilities associated with both optimistic and pessimistic projections, including best-case and worst-case scenarios.”

The USDA Guidelines for Regulatory Information apply to “all types of information disseminated by USDA agencies and offices.”<sup>23</sup> The USDA Guidelines require that USDA agencies and offices:<sup>24</sup>

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<sup>22</sup> <https://www.whitehouse.gov/wp-content/uploads/2019/04/M-19-15.pdf>.

<sup>23</sup> *Id.*

<sup>24</sup> <https://www.ocio.usda.gov/policy-directives-records-forms/information-quality-activities>; *see also* <https://www.fs.fed.us/qoi/>.

- i. [S]trive to ensure and maximize the quality, objectivity, utility, and integrity of the information that its agencies and offices disseminate to the public.
- ii. [A]dopt a basic standard of quality (including objectivity, utility, and integrity) and take appropriate steps to incorporate information quality criteria into their information dissemination practices.
- iii. [R]eview the quality (including objectivity, utility, and integrity) of information before it is disseminated to ensure that it complies with the standards set forth in these Guidelines.
- iv. [T]reat information quality as integral to every step in their development of information, including creation, collection, maintenance, and dissemination. [and]
- v. In accordance with OMB guidance, when collecting information that requires OMB clearance under the Paperwork Reduction Act, USDA agencies and offices will demonstrate in the clearance package submitted to OMB that the information collection would result in information that will comply with OMB and USDA information quality guidelines.

The quality standards which USDA agencies must follow “in developing and reviewing information and disseminating it to the public” consist of:<sup>25</sup>

- i. Objectivity

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<sup>25</sup> *Id.*

- USDA agencies and offices will strive to ensure that the information they disseminate is substantively accurate, reliable, and unbiased and presented in an accurate, clear, complete, and unbiased manner.
- To the extent possible, consistent with confidentiality protections, USDA agencies and offices will identify the source of the information so that the public can assess whether the information is objective.

ii. Utility

- USDA agencies and offices will assess the usefulness of the information they disseminate to its intended users, including the public.
- When transparency of information is relevant for assessing the information's usefulness from the public's perspective, USDA agencies and offices will ensure that transparency is addressed in their review of the information prior to its dissemination.
- USDA agencies and offices will ensure that disseminated information is accessible to all persons pursuant to the requirements of Section 508 of the Rehabilitation Act.

iii. Integrity

- USDA agencies and offices will protect information they maintain from unauthorized access or revision to ensure that disseminated information is not compromised through corruption or falsification.
- USDA agencies and offices will secure their information resources by implementing the programs and policies required by the Government Information Security Reform Act.
- USDA agencies and offices will maintain the integrity of confidential information and comply with the statutory requirements to protect the information it gathers and

disseminates. These include: The Privacy Act of 1974, as amended; The Paperwork Reduction Act of 1995; The Computer Security Act of 1987; The Freedom of Information Act; and OMB Circulars A-123, A-127, and A-130.

The GTR fails to comply with these standards—particularly the standard of objectivity. As the BHFRA Report has found, the information in the GTR is inaccurate, unreliable, and biased. As a result, the GTR vastly understates timber growth on the BHNF.

In addition, the GTR does not meet DQA standards for the best available data. Agencies are directed<sup>26</sup> to adopt congressional standards of scientific integrity stemming from the Safe Drinking Water Act (“SDWA”),<sup>27</sup> for agency action based on science, the SDWA standards must entail:

(i) the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices; and (ii) data collected by accepted methods or best available methods (if the reliability of the method and the nature of the decision justifies use of the data).<sup>28</sup>

Furthermore, “each agency [must]...subject ‘influential’ scientific information to peer review prior to dissemination,” and “agencies should strive to ensure that their peer review practices are characterized by both scientific integrity and process integrity. The GTR is clearly influential information as the USFS has been relying upon it to drastically reduce timber harvest levels on the forest. Although there was a comment and peer review process, simply completing the process without proper consideration of the comments does not completely “check the box”.

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<sup>26</sup> OMB DQA Guidelines V3.b.ii.B.ii.C.

<sup>27</sup> 42 U.S.C. § 300g-1(b)(3)(A).

<sup>28</sup> Available at: [http://www.whitehouse.gov/omb/fedreg\\_reproducible](http://www.whitehouse.gov/omb/fedreg_reproducible).

‘Scientific integrity,’ in the context of peer review, refers to such issues as ‘expertise and balance of the panel members; the identification of the scientific issues and clarity of the charge to the panel; the quality, focus and depth of the discussion of the issues by the panel; the rationale and supportability of the panel’s findings; and the accuracy and clarity of the panel report.’ ‘Process integrity’ includes such issues as ‘transparency and openness, avoidance of real or perceived conflicts of interest, a workable process for public comment and involvement,’ and adherence to defined procedures. (*Citing ILSI Risk Sciences Institute, “Policies and Procedures: Model Peer Review Center of Excellence,”* 2002: 4.)<sup>29</sup> OMB Peer-Review Guidelines at 2668-9.

Lastly, the OMB Guidelines require a high degree of transparency for influential information such as the GTR. Transparency equates to disclosure of the “data and methods of analysis” such that replication of results could be achieved.<sup>30</sup> Peer-review of original and supporting data and results “does not necessarily imply that the results are transparent and replicable.”<sup>31</sup>

The GTR fails to meet quality, objectivity, utility and integrity standards of the DQA, the Guidelines and the additional authorities cited herein. Accordingly, BHFRA asks USFS to correct, retract or supplement information referenced in the GTR as discussed in the BHFRA Report and to ensure that all information disseminated by USFS meets the requirements of the DQA and the USDA Guidelines.

### **C. Explanation of the Effect of the Alleged Error**

As discussed herein, USFS is using the GTR as the basis for forest management decisions in the BHNH—primarily forest management decisions decreasing timber harvest and sales.

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<sup>29</sup> <http://rsi.ilsis.org/file/Policies&Procedures.pdf>

<sup>30</sup> OMB DQA Guidelines V(3)(b)(ii).

<sup>31</sup> OMB, *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by Federal Agencies*, [http://www.whitehouse.gov/omb/fedreg\\_reproducible](http://www.whitehouse.gov/omb/fedreg_reproducible).

According to the USFS, “[e]ach year, an average of more than 73,000 wildfires burn about 7 million acres of federal, tribal, state, and private land and more than 2,600 structures.”<sup>32</sup> The USFS acknowledges the increasing severity of wildfires, stating that “over the last few decades, the wildland fire management environment has profoundly changed. Longer fire seasons; bigger fires and more acres burned on average each year; [and] more extreme fire behavior...”<sup>33</sup> A Congressional Research Service paper “Wildfire Statistics,”<sup>34</sup> which was updated on July 15, 2021 as of the date of this Request, also discusses the increasing incidence and scale of wildfires. Mitigation against catastrophic wildfires should be among the highest priorities of the BBNF and the USFS as a whole. Active timber management is the best way to mitigate against such fires. As fires burn, carbon stored in trees and other vegetation combusts, releasing carbon dioxide and other potent greenhouse gases into the atmosphere. This means that as fires increase, so do emissions. For example, in California, the worst days of wildfires in 2020 have generated emissions that are roughly 4 to 8 times higher than the average daily emissions from all economic activity across the state.<sup>35</sup>

On August 7, Denver, Colorado was said to have the worst air quality in the world as a result from smoke from forest fires across the West. In large part, these fires were fueled by unmanaged forests as the result of high levels of management restrictions. In addition to destroying wildlife and wildlife habitat, these wildfires degrade water quality, transportation and even take human lives. Mudslides and flooding in their wake have caused repeated and numerous road and highway closures and have even cost human lives.

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<sup>32</sup> <https://www.fs.usda.gov/managing-land/fire>

<sup>33</sup> *Id.*

<sup>34</sup> <https://fas.org/sgp/crs/misc/IF10244.pdf>

<sup>35</sup> <https://www.wri.org/insights/6-graphics-explain-climate-feedback-loop-fueling-us-fires>

In addition, in the arid West, our precious water resources largely originate on USFS lands. When wildfires occur, soil in burned areas erodes into rivers, streams and reservoirs, impacting not only people, but wildlife and ecosystems according to a June 18, 2021 article by The Nature Conservancy. Wildfires also affect watersheds that are essential for irrigating crops and hurt the agriculture industry. Water supplies may take decades and untold millions of dollars to recover.

These devastating events take their toll not only on the national forests, but also on fire-fighting personnel, the timber industry, infrastructure, private property, and the public. It is well-documented that timber harvest (i.e., fuels management) is necessary to mitigate the spread and destructive impact of wildfires and PB epidemics. As testament to that fact, this year the USDA released a report titled, “Climate-Smart Agriculture and Forestry Strategy: 90 Day Report”, calling for a 2-4 times increase in the number of acres treated annually on FS lands. The USFS’ intention to reduce timber harvest and sales will inevitably serve only to fuel the disappearance of healthy and beautiful national forests, compounding atmospheric carbon and reducing other public land opportunities as a result.

**D. Recommendation and Justification for How the Information Should be Corrected**

BHFRA urges the USFS to withdraw the GTR in order to revise it in accordance with the specific recommendations identified in the BHFRA Report and NFAB recommendation. As the GTR is serving as the basis for significant USFS forest management decisions contrary to NEPA, it is vital that the GTR be wholly characterized by “quality, objectivity, utility, and integrity,” and utilize the most accurate science possible.

**VII. Conclusion**

The GTR is a highly influential document, as the USFS is using it and citing it for substantial land use decisions in the BHNF. As such, USFS must adhere to the standards of quality, integrity, objectivity and utility under the DQA as well as administration standards of scientific integrity and transparency.

The GTR violates the DQA, USDA Guidelines, and OMB guidance cited herein as the information it conveys is inaccurate. Nonetheless, the GTR is serving as the basis for USFS decision-making regarding management of the BHNF. Reliance on this biased and faulty information has and will continue to harm the BHNF. In addition to the damage to the Petitioners, the forests, the timber industry, the public, and the economy will be negatively impacted.

BHFRA respectfully requests the USFS retract the GTR and correct it consistent with the tenets of quality, objectivity, utility and transparency in the DQA.

Respectfully submitted this \_\_\_\_ day of September, 2021.

HOLSINGER LAW, LLC

A handwritten signature in black ink, appearing to read 'K. Holsinger', written in a cursive style.

Kent Holsinger  
*Attorney for Black Hills Forest Resource Association,  
Requestor/Petitioner*