



Forest Planning Team
GMUG National Forest
2250 Highway 50
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June 1, 2018

Dear GMUG Planning team,

Please accept the following scoping comments on behalf of The Wilderness Society, High Country Conservation Advocates, Conservation Colorado, Rocky Mountain Wild, Great Old Broads for Wilderness – Northern San Juan Chapter and Grand Junction Chapter, Western Colorado Congress, Western Environmental Law Center, San Juan Citizens Alliance, Sheep Mountain Alliance, Ridgway Ouray Community Council, Western Slope Conservation Center, and Defenders of Wildlife on development of a revised forest plan and associated environmental impact statement for the Grand Mesa, Uncompahgre, and Gunnison (GMUG) National Forest. *See* 83 Fed. Reg. 14243 (Apr. 3, 2018) (Notice of Intent, including Purpose and Need (Needs for Change) and Proposed Action). We are excited to be participating in this plan revision process and the opportunity to develop the management vision for and direction of the GMUG National Forest, a true gem in the National Forest System.

The Wilderness Society (TWS) is a leading conservation organization working to protect wilderness and inspire Americans to care for our wild places. Founded in 1935, and now with more than one million members and supporters, TWS has led the effort to permanently protect 109 million acres of wilderness and to ensure sound management of our shared national lands. We work closely with diverse interests who care about the future of our national forests and provide scientific, economic, legal, and policy guidance to land managers, communities, local conservation groups, and state and federal decision-makers. In doing so, we hope to ensure the best management of our public lands. Our members and supporters nationwide and, in particular, our 17,000 members and supporters in Colorado, are deeply interested in forest planning as it pertains to the conservation, restoration, and protection of wildlands, wildlife, water, recreation, and the ability to enjoy public lands for inspiration and spiritual renewal.

High Country Conservation Advocates (HCCA) is located in Crested Butte, Colorado and has over 900 members. HCCA was founded in 1977 to protect the health and natural beauty of the land, rivers, and wildlife in and around Gunnison County now and for future generations. For over 40 years HCCA has engaged on public lands issues. HCCA is a grassroots organization that collaborates with local stakeholders and policymakers, applies sound science, educates, and upholds the environmental laws affecting our community.

We appreciate all the hard work that the staff on the GMUG National Forest is putting into the plan revision process. We look forward to continuing to work with you as the forest plan revision process moves forward. Thank you for considering these comments. If you have questions, please do not hesitate to contact us to discuss.

Sincerely,

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Conservation Colorado is a grassroots organization that educates and mobilizes people to protect Colorado's environment and quality of life. We focus on reducing dirty fossil fuels and increasing clean, renewable energy; solving the climate change crisis; protecting public lands, clean air and water for everyone; and empowering citizens to engage in the democratic process. We collaborate on key environmental issues to find success at the state and federal levels.

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Rocky Mountain Wild is a conservation organization based in Denver Colorado that works to protect, connect, and restore wildlife and wild lands in the Southern Rocky Mountain region. Rocky Mountain Wild's team of conservation biologists, GIS specialists, and attorneys are active participants in the scientific community; they present at conferences, write reports and articles, and engage in direct research to fill the gaps in the scientific record as needed. At Rocky Mountain Wild, we always use the best available science to achieve our conservation goals. Rocky Mountain Wild works to identify, protect, and restore functioning and resilient habitats through its Healthy Habitats program. Rocky Mountain Wild's engagement in the GMUG Forest Plan Revision process is part of its Healthy Habitats program.

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Great Old Broads for Wilderness is a national organization, led by women, that engages and inspires the activism of elders to preserve and protect wilderness and wild lands. Broads gives voice to the millions of older Americans who want to protect their public lands as Wilderness for this and future generations. We bring experience, commitment, and humor to the movement to protect the last wild places on Earth. The Northern San Juan chapter of Great Old Broads for Wilderness is engaged in advocating for protection and expansion of wilderness across the GMUG and specifically in the Uncompahgre Forest. We also support policy and management practices that enhance ecosystem integrity and resiliency, protect wildlife corridors and habitat, and utilize our nation's public lands in ways to mitigate climate change rather than compounding the problem.

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Western Colorado Congress (WCC) is located in Grand Junction, Colorado with chapters representing members in Garfield, Mesa, Montrose, Delta, and Ouray counties. Founded in 1980 with more than 1,000 members, WCC brings people together to build power by grassroots organizing and developing leaders. For more than 35 years WCC has been committed to engaging local voices across Western Colorado who believe the responsible management of our public land protects our communities' heritage, sustains healthy wildlife and habitat, supports a strong and sustainable economy, and preserves our quality of life for generations to come.

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The Western Environmental Law Center uses the power of the law to safeguard the public lands, wildlife, and communities of the American West in the face of a changing climate. We envision a thriving, resilient West, abundant with protected public lands and wildlife, powered by clean energy, and defended by communities rooted in an ethic of conservation. WELC works close to the ground, with offices around the West and close relationships with local partners. As a public interest law firm, WELC does not charge clients and partners for services, but relies instead on charitable gifts from individuals, families, and foundations to accomplish our mission. WELC integrates national policies and regional perspective with the local knowledge of our 185+ partner groups to implement smart and appropriate place-based solutions.

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Defenders of Wildlife (Defenders) is a national non-profit conservation organization founded in 1947 focused on conserving and restoring native species and the habitat upon which they depend. Defenders has a strong interest in forest planning under the 2012 Planning Rule and is committed to working with the Forest Service to develop and implement forest plans that effectively meet the conservation objectives of the rule. The following comments are submitted on behalf of Defenders' more than 1.8 million members and supporters nationwide.

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Sheep Mountain Alliance represents over 800 members and supporters who live, work, and recreate within the environs of the GMUG National Forest. Since we were founded in 1988, SMA has worked extensively with the Forest Service towards collaborative land management and conservation solutions. SMA is a grassroots citizens' group whose members are deeply invested in protecting the future of our public lands, watersheds, wildlife habitats, and wilderness.

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San Juan Citizens Alliance (SJCA) is headquartered in Durango, CO and has over 1,000 members in southwest Colorado. SJCA was founded in 1986 and advocates for clean air, pure water, and healthy land – the foundations of resilient communities, ecosystems and economies in the San Juan Basin. SJCA extensively engages in federal land management plans and projects in the San Juan Mountains proposed by the Forest Service and BLM.

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The Ridgway Ouray Community Council (ROCC) is a nonprofit community organization whose mission is to build, nourish and protect the health and spirit of our community and environment. ROCC is dedicated to quality of life issues that will help shape the future of Ouray County.

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The Western Slope Conservation Center is a 41-year-old grassroots organization based in the North Fork Valley of western Colorado. It currently represents over 600 current members who live on the Western Slope and across the state. The organization began in 1977 when neighbors joined together to advocate and steward the North Fork and Lower Gunnison Watersheds. Over the years, our work broadened to meet the varied needs of our rural communities and spectacularly diverse landscape.

# Contents

## I. Introduction

The GMUG is a gem in the National Forest System. Located in western Colorado, the GMUG contains some of the most spectacular mountain and canyon scenery in the Rocky Mountains and extensive wild lands, including over 900,700 acres of Forest Service Colorado Roadless Areas (CRA). Together, the GMUG's wilderness and roadless lands provide essential wildlife habitat, outstanding backcountry recreational opportunities, jaw-dropping scenery, and clean air and water. In addition, the forest serves as the headwaters for the Gunnison, North Fork of the Gunnison, Uncompahgre, San Miguel, and Dolores Rivers that all flow into the Colorado River. The GMUG's mountains and streams attract people from local communities and afar to hunt, fish, paddle, hike, ski, camp, horseback ride, bird-watch, study nature, and drive for pleasure. This eco-based tourism is a critical component of the counties and municipalities within the GMUG region. For instance, over 40% of employment in San Juan, San Miguel, Hinsdale and Ouray Counties is in sectors within travel and tourism sectors, while timber employment is imperceptible and mining/energy employment is 0.1% in Ouray County and about 6% in Hinsdale County.[1]

In these comments, we identify and provide information on places that deserve recognition for their conservation values, including areas that should be recommended for wilderness, or established as another type of administrative conservation designation or conservation-oriented management area. We provide detailed information on these areas, and how if designated they would contribute to the region's biodiversity, ecological integrity, water resources, scenery, and outdoor recreation. In addition, we offer comments on select topics that affect the forest's wildness. These include forest and fire management, transportation infrastructure, and sustainable recreation. For these topics, we offer a summary of the policy framework, identify significant issues, offer recommendations for the environmental analysis, and, in some cases, offer specific plan components that we think are necessary and useful for meeting the sustainability, diversity, and integrated resource management provisions in the 2012 planning rule.

While not exhaustive, we believe the information contained in this letter and the appendices represents the best available scientific information, which the agency is required to utilize.[2] We ask that you regard it as such, or clearly document why you disagree, while providing the scientific basis for your analysis and conclusions.

## II. Distinctive Roles and Contributions

Under the 2012 planning rule, plans must "reflect[] the unit's expected distinctive roles and contributions to the local area, region, and Nation, and the roles for which the plan area is best suited, considering the Agency's mission, the unit's unique capabilities, and the resources and management of

[1] Headwaters Economics, Economic Profile System Summary Report, page 6 Exhibit 1. See https://headwaterseconomics.org/tools/economic-profile-system/about/ for more information on the Economic Profile System.
[2] 36 C.F.R. § 219.3.

other lands in the vicinity."[3] While the section addressing distinctive roles and contributions starting on page 1 of the scoping notice provides a good description, it is missing two important items. The first is the fact that the GMUG contains six fourteeners, 56 thirteeners, and some of the most iconic alpine scenery in the nation, making it a mecca for backcountry explorers and mountain climbers. Second, because the GMUG is extensive and contains considerable wild lands, a unique capability of the GMUG is its capacity to provide, in combination with other public lands, a network of quality habitat within a region of increasingly urbanized private lands.[4] The forest plan should recognize these two important distinctive roles and contributions.

***Recommendation:*** **Recognize as distinctive roles and contributions the alpine peaks and backcountry opportunities that distinguish the GMUG from the surrounding landscape, and the capability of the GMUG to contribute to landscape scale network of protected lands derived from its large roadless base.**

## III. Overall Plan Framework

Overall, we are supportive conceptually of the organizational framework presented in the scoping notice. As we read it, the scoping notice is essentially proposing dividing the forest up into thematic management areas: natural processes dominate, special areas and unique landscapes, backcountry, recreation focus areas, high development, and general forest. Presumably, desired Recreation Opportunity Spectrum allocations will be overlaid as will suitability to provide further direction to these larger management area allocations. We generally find this structure to be straightforward and intuitive, although wonder if it makes sense to divide the forest into geographic areas (e.g., Grand Mesa, Uncompahgre Mountains) as people relate to the forest through physiographic zones. Doing so would allow the GMUG to describe its management vision and strategy for each.[5]

We are confused and concerned by the third bullet under Part III in the scoping notice ("It should be the exception, rather than the rule, that additional, specific place-based direction will be needed"). Having less management areas can work, but only if specific place-based direction is imposed where needed to ensure compliance with the substantive obligations of the planning rule at 36 C.F.R. §§ 219.8 – 219.10. Such direction could come in the form of overlay zones (for instance, imposing conditions for certain species such as modified fences in wildlife corridor zones; specific plan components for ecosystem types). In addition, we urge that the GMUG utilize standards. We are seeing a trend generally away from using standards and guidelines in plans presumably in an effort to increase flexibility. However, reducing constraints at the programmatic level demands more environmental analysis at the project level which

[3] 36 C.F.R. § 219.2(b)(1); *see also id.* § 219.7(f)(1)(ii) ("Every plan must . . . [d]escribe the plan area's distinctive roles and contributions within the broader landscape . . . .").
[4] This concept was included in the 2007 proposed plan at 13, available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsbdev7_003194.pdf.
[5] The GMUG recently used geographic zones in its Spruce Beetle Epidemic and Aspen Decline Management Response project. See Final Environmental Impact Statement at 19.

can lead to longer project development timelines and unnecessary inefficiencies. As noted by professor of forest policy and FACA committee member Martin Nie in a 2014 article,

> Not only do law and regulation require standards, but they can also lead to efficiencies in forest planning. They can also be advantageous from a political perspective, as they resonate with a cross section of planning participants, most of whom want a greater degree of certainty, structure, and predictability in forest management.[6]

The Forest Service should make suitability determinations not just for commercial timber, but also for restoration-focused vegetation management, hazardous fuels vegetation management, motorized vehicle use, energy development, road building, and other forest uses or activities. Suitability determinations should be based on both legal constraints and on practical or technical constraints or potential conflicts. We provide additional comments on suitability in subsequent sections on specific topics.

We urge the use of explanatory text to provide useful background information and communicate the forest's management approach. The Gila National Forest in its preliminary draft plan[7] provides a very useful narrative for each topic that includes not only background information and a summary of the forest's management strategy but also a listing of references that are considered best available science.

We urge the GMUG to consider adding a section to the plan that addresses management uncertainty in the face of climate change. We recognize that this is unchartered territory to an extent, but also shows the importance of using the planning process to manage risk under various climate scenarios. The Gila National Forest started to explore this avenue in its conceptual draft plan[8], and might serve as a good example (or a good partner) in pioneering this concept.

Lastly, we ask that the GMUG consider adding a Wildland Urban Interface management area (generally ½ mile or less in width) with its own set of plan components. The WUI has distinct management challenges and opportunities related to recreation, fuels management[9] and other intermix/cross-boundary issues, and having specific direction for this zone will provide more clarity and focus around forest management activities to both forest managers and communities.[10]

## IV. Designated Areas

[6] Martin Nie and Emily Schembra, *The Important Role of Standards in National Forest Planning, Law, and Management,* 44 Environmental Law Reporter 10282 (2014).
[7] *See* USDA Forest Service. 2018. *Preliminary Draft Land Management Plan for the Gila National Forest.* Southwest Region. March 2018. For instance, see the section on wildand fire starting on page 103. *Available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd573667.pdf.*
[8] *Ibid.* Starting on page 157.
[9] For example, see Cohen 1999 and Cohen 2007.
[10] *Ibid.* at 183. The Gila proposed a WUI management area in its preliminary proposed draft. While it clearly needs more development, the idea makes sense.

The planning rule requires the GMUG National Forest to determine whether, where, and how to establish (or recommend for establishment) conservation areas as part of the plan revision. These types of conservation areas include, but are not limited to, lands recommended for wilderness designation,[11] eligible Wild and Scenic rivers,[12] and other designated areas.[13] While the first two categories of designated areas are prescribed by the Wilderness Act and Wild and Scenic Rivers Acts, respectively, the last category is purposely broad and intended to apply to other areas or features within the planning area that have unique and special character or purpose.[14]

The requirement to consider a suite of conservation-oriented designations is one of the most important aspects of the plan revision process. First, it presents a rare opportunity to provide administrative protection to some of the most spectacular and ecologically important undeveloped lands on our national forests. These areas provide clean drinking water, habitat for imperiled wildlife, physical, mental, and spiritual renewal for millions of Americans, and a buffer to the impacts of climate change. Second, it enables us to create a network of inter-connected protected areas that will help forests achieve the overarching ecological sustainability, species diversity, sustainable recreation, and climate change adaptation requirements of the 2012 planning rule.[15] Indeed, the best available scientific information demonstrates that designated and connected conservation reserve systems are critically important in conserving biological diversity and ecological processes and in mitigating system stressors.[16]

For the reasons described in this letter, in our January 17, 2017 pre-assessment letter[17], in our December 8, 2017 letter on the draft assessment report, and in Chapter 15 of the Assessment Report (starting at 35) there is a need and opportunity to recommend areas suitable for inclusion in the

[11] 36 C.F.R. § 219.7(c)(2)(v).
[12] *Id.* § 219.7(c)(2)(vi).
[13] *Id.* § 219.7(c)(2)(vii).
[14] *Id.* § 219.19. The planning rule defines a designated area as "An area or feature identified and managed to maintain its unique special character or purpose." Designated areas can be created by statute or through an administrative process including the development or revision of a plan. "Examples of administratively designated areas are experimental forests, research natural areas, scenic byways, botanical areas, and significant caves."
[15] The planning rule guides the development of plans that: "will guide management of [National Forest System] lands so that they are ecologically sustainable and contribute to social and economic sustainability; consist of ecosystems and watersheds with ecological integrity and diverse plant and animal communities; and have the capacity to provide people and communities with ecosystem services and multiple uses that provide a range of social, economic, and ecological benefits for the present and into the future." *Id.* § 219.1(c). The rule's specific requirements at § 219.8 through § 219.10 include: maintaining and restoring aquatic and terrestrial ecosystem integrity; facilitating connectivity within and across landscapes so that wildlife have room to roam;[15] maintaining the diversity of plant and animal species; contributing to the recovery of federally listed threatened and endangered species; conserving proposed and candidate species; maintaining a viable population of each species of conservation concern within the plan area; and connecting people to nature and the outdoors.
[16] *See* pages 13-14 of Appendix E (describing ecological benefits of protected natural areas).
[17] Submitted January 17, 2017 by The Wilderness Society, Defenders of Wildlife, High Country Conservation Advocates, Wilderness Workshop, Rocky Mountain Wild, Great Old Broads for Wilderness, Western Colorado Congress, Ridgway Ouray Community Council, Sheep Mountain Alliance, Quiet Use Coalition, Conservation Colorado and Rocky Smith.

National Wilderness Preservation System, eligible Wild and Scenic rivers, and other special designations to protect and connect highly deserving areas and resources, meet ecological needs for species, and enhance sustainable recreation opportunities. We are excited about the possibility of additional conservation areas on the GMUG National Forest. In the sections that follow, we offer recommendations for additional designations, and suggest approaches for analyzing the implications of each in the draft EIS.

### A. Recommended Wilderness Areas and Other Conservation Designations

Wilderness provides the highest level of protection to federal lands. The GMUG is required to inventory and evaluate areas that may be suitable for wilderness, analyze qualifying areas in the various alternatives in the EIS, recommend in the plan decision some, none, or all of the qualifying areas for wilderness designation, and provide management direction designed to protect and maintain the recommended areas' wilderness characteristics.[18] It is important that the forest complete the wilderness evaluation prior to alternative development because the Chapter 70 directives require that the determination of areas to carry forward for analysis in the EIS be "[b]ased on the evaluation and input from public participation opportunities."[19]

Given the GMUG's vast roadless lands, we anticipate that the wilderness inventory and evaluation will identify significant acreage of wilderness-quality lands and expect that the forest will analyze a robust range of alternatives for management of those lands. In addition to the 900,700 acres of Colorado Roadless Areas (CRAs) identified under the revised Colorado Roadless Rule, the forest contains additional roadless lands outside CRAs that will be identified through the Chapter 70 process. In total, there are likely over one million acres of potential wilderness-quality lands on the GMUG that offer an array of ecological and social benefits.

Wilderness and other roadless areas designated for conservation purposes are places where natural processes operate, and thus provide refuge for species, promote biodiversity, and contribute to landscape connectivity. The Forest Service recognized this in several recent planning processes. For example, the Gila National Forest stated that:

> Ecosystem services of designated areas [include] . . . regulating services, such as storage of carbon, water filtration, climate regulation, etc. . . . . For example, designated areas often provide high-quality water, soil, and air resources (DellaSala et al. 2011). Designated areas can play a role in conserving biodiversity and facilitate connectivity (Loucks et al. 2003).
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> . . .

[18] *Id.* §§ 219.7(c)(2)(v), 219.10(b)(1)(iv). Chapter 70 of the Forest Service Handbook (FSH) 1909.12 prescribes this process.

[19] FSH 1909.12, ch. 70, § 73; *see also id.* §§ 70.61, 72 (agency must "communicate the evaluation process to the public" and provide opportunities for public participation "early and throughout the process to provide feedback and input on the . . . evaluation," including providing "[m]aps, analysis, and other documentation . . . to increase transparency and enable feedback and input").

> Designated areas contribute to ecological sustainability . . . , by preserving intact natural systems and their individual components for future generations. Designated areas provide clean drinking water and function as biological strongholds for populations of threatened and endangered species. They provide large, relatively undisturbed landscapes that are important to biological diversity and the long-term persistence of at-risk species. . . . They also serve as bulwarks against the spread of non-native invasive plant species, and provide reference areas for study and research.[20]

The Flathead, too, recognized the value of conservation areas, stating:

> The demand for wilderness goes beyond recreation opportunities. Other values include long-term environmental monitoring, scenic backdrops for tourism, watershed protection, and maintenance of biological diversity.
>
> ….Wilderness is also important for the maintenance of species diversity, protection of threatened and endangered species, protection of watersheds, scientific research, and various social values. Wilderness is part of the national forests' multiple-use management mission.[21]

Similarly, the Rio Grande stated in its recent assessment report that:

> Both designated wilderness and roadless areas can support important ecological roles including a strong emphasis on the conservation of biodiversity. In the Rocky Mountain Region, designated wilderness areas provide habitats for numerous elements of biological diversity which in practice has a strong species-based focus on rare aquatic and terrestrial plants and animals, federally listed threatened and endangered species, Forest Service sensitive species, and examples of unique or uncommon plant communities. Increasing the size of current designated wilderness areas is also an important option that can help support biological diversity and protect habitat for rare and endangered plant and animal species.
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> Numerous assessments stress the importance of wilderness and roadless areas for native fish stocks…These assessments find that current strongholds (most secure and robust populations) are dependent on wilderness and roadless areas. Given the protection of roadless and wilderness, some of our strongest populations for native fishes are in wilderness and other "unroaded" areas of our National Forest System lands.[22]

Wilderness and other undeveloped natural areas also enhance the representation of different ecosystems, thereby preserving refugia for species (Dietz et al. 2015). And they serve as ecological baselines to facilitate better understanding of our impacts to other landscapes and as reference areas

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[20] Gila National Forest Final Assessment Report, pp. 576, 607.
[21] Flathead National Forest Final EIS for the Forest Plan, Volume 2 at 59. Available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566363.pdf.
[22] Rio Grande National Forest Draft Assessment Report Chapter 15, *Designated Areas at* 20*.* Available at https://www.fs.usda.gov/detailfull/riogrande/landmanagement/projects/?cid=fseprd479414&width=full

for ecological restoration (Arcese and Sinclair 1997). Land management plans are required to provide for these and other ecological services.[23] Particularly as climate change alters and makes more vulnerable ecological systems, habitats, and species composition and distribution, there is a need to conserve migratory corridors, representation within protected areas, larger protected tracts, and connections between them (Mawdsley et al. 2009).

Social benefits of designated areas include mental and physical wellness, spiritual and aesthetic appreciation, self-enlightenment, family/social improvement, character-building, and therapeutic services.[24] As the Gila National Forest in its Assessment Report recognized:

> [D]esignated areas can provide important social and economic services, including significant recreational and scenic opportunities, places to connect with nature and spirit, and contribut[ions] to the local tourism industry (Rasker 2006). They also offer the ability to connect with history and provide places for research.
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> . . .
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> Designated special areas contribute to social sustainability by connecting people to their natural and cultural heritage, and providing economic benefits to surrounding communities. They promote the preservation of cultural traditions including historical features that contribute to social wellbeing through education, and provide recreational opportunities.[25]

People value wilderness and other conserved areas even though they may not be able to visit it. This concept was articulated by the Flathead National Forest recently:

> Many people who do not regularly visit primitive, roadless, or designated wilderness areas still value protection of such areas to maintain the opportunity for visits in the future (option value). People also gain benefits simply from knowing that natural areas exist (existence value) and that their protection today sustains them for future generations (bequest value) (Rosenberger & Loomis, 2000).
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> Several studies have shown the importance and value people place on these passive-use benefits of wilderness (Cordell, Betz, Stephens, Mou, & Green, 2008). These values or needs are reflected in the National Survey on Recreation and the Environment, which found that roughly 70 percent of those surveyed responded favorably to the question, "How do you feel about designating more Federal lands in your state as wilderness?" Over 96 percent agreed or strongly agreed with the statement, "I enjoy knowing that future generations will be able to visit and experience wilderness areas."[26]

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[23] *See* 36 C.F.R. §§ 219.8-219.9.

[24] See http://www.wilderness.net/toolboxes/documents/50th/Wilderness_SocialBenefits.pdf.

[25] Gila National Forest Final Assessment Report, pp. 576, 606-607.

[26] Flathead National Forest Final EIS for the Forest Plan, Volume 2 at 59. Available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566363.pdf.

Economic benefits of designated areas derive from both non-market ecosystem services and direct market services. In general, wilderness has a positive effect on local economies. As the Rio Grande National Forest recently documented in its Assessment Report:

> It is a misunderstanding that wilderness creates economic costs for local communities. This idea is often embodied in the 'jobs vs. environment' argument suggesting that there is an inherent tradeoff between economic prosperity and strong environmental protection. In fact, wilderness areas protect the environment and have a positive effect on local economics because they benefit local businesses and their employees, create revenue through recreation dollars, increase property values, and provide invaluable ecosystem services to nearby cities.[27]

The GMUG's Final Assessment Report affirm these findings, explaining:

> With respect to economic sustainability, rural areas with natural resource amenities, like wilderness, experience higher regional economic growth rates than rural areas without natural resource amenities (Deller et al., 2001). Similarly, the West's most popular national parks, monuments, wilderness areas, and other public lands offer a competitive advantage in attracting employees to the region's growing high-tech and services industries (Holmes and Hecox, 2004). Proximity to wilderness is also an important reason why 45% of long-time residents and 60% of recent transplants to the West live in or move to counties containing wilderness (Headwaters Economics, 2012).[28]

Because of these numerous benefits, Americans like wilderness and favor additional wilderness and conservation designations. For instance, a 2014 Hart Research poll conducted for the Center for American Progress showed that 90% of voters support permanent protection of some public lands as wilderness, parks, or wildlife refuges.[29] Regional specific polls and surveys are consistent with this national poll:

- 70% of west slope Colorado residents support efforts to protect additional deserving public lands as wilderness in or near the county where they live.[30]
- 71% agree wilderness-quality lands are more important for recreation, tourism, and wildlife than for energy development. Majority support was found across all geographical regions and party affiliations (85% Democrat support, 76% Independent support, and 52% Republican support).[31]

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[27] Rio Grande National Forest, Assessment Report, ch. 15, p. 22, *available at* https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd489288.pdf.
[28] GMUG National Forest Final Assessment Report on Designations at 21.
[29] Hart Research Associates, "Public Opinion on US Energy and Environmental Policy" (Dec. 2014), https://cdn.americanprogress.org/wp-content/uploads/2015/01/Public-Opinion-on-US-Energy-and-Environmental-Policy_slides.pdf.
[30] See results of survey conducted by Talmey-Drake Research & Strategy, Inc., a public opinion and market research firm in Boulder, Colorado at Exhibit 2.
[31] Ibid.

- 90% agree that wilderness areas were important economically for the hunting, fishing, and tourism they support.[32]
- 71% believe that wilderness areas should not be sacrificed for energy development, and that clean energy alternatives should be pursued instead. In a different question, only 33% of respondents agree that wilderness-quality lands are needed for domestic energy development.[33]
- 85% of Coloradoans report that Wilderness areas or open lands with little to no development and opportunity for solitude are moderately to very important to them, while 53% felt it was extremely important (Colorado Parks and Wildlife 2014).
- 90% of Coloradoans feel that Wilderness areas or open lands with little to no development and opportunity for solitude are a moderate to high priority for future investment, while 45% felt it was an essential priority (Colorado Parks and Wildlife 2014).
- 81% of Coloradoans feel that nature or wildlife viewing areas should be a moderate to high future investment priority in their local communities (Colorado Parks and Wildlife 2014).
- The results from the 2012 Colorado College State of the Rockies Conservation in the West poll found that Colorado voters across the political spectrum view Colorado's parks and public lands as essential to the state's economy. Of voters surveyed, 93 percent agreed that "Our national parks, forests, monuments, and wildlife areas are an essential part of Colorado's economy." And 75% said that Colorado should maintain protections for land, air and water in the state rather than reduce them in an effort to create jobs as quickly as possible.[34]

These survey and poll results affirm the conclusions in the GMUG's 2006 Comprehensive Evaluation Report. The Human Dimensions chapter summarizes the state of the forest and its management for a suite of designated areas including roadless areas and special interest areas. The report documents that public sentiment has changed since the GMUG's current 1983 land management plan and its 1991 amendment were developed in that the public wants more protection of lands for conservation. For example, in discussing roadless areas, the report states that "The current plan direction does not reflect the stakeholder support and public comment favoring retention and preservation of undeveloped areas. Ecological sustainability factors also support preservation of areas for wildlife and native species habitat values."[35] Similarly, in the section on Special Interest Areas, the report finds that "Social values have changed since the last Forest Plan decision. There is an increase in biological, scenic, and recreational values that was not accounted for during the last planning effort."[36]

With the regional population on the rise and climate change stressing natural systems, there is a need to recommend additional roadless lands for wilderness protection – particularly those areas with high ecological value. Doing so will help create a wildlands network that provides for connectivity across the

[32] Ibid.
[33] Ibid.
[34] https://www.coloradocollege.edu/other/stateoftherockies/conservationinthewest/2012/
[35] GMUG 2006 Comprehensive Evaluation Report, chapter on Human Dimensions. Page 3.
[36] GMUG 2006 Comprehensive Evaluation Report, chapter on Special Interest Areas. Page 19.

landscape, protection of under-represented ecosystem types, persistence of at-risk species, and long-term biodiversity. *See* Belote et al. 2017 (documenting importance of building a more resilient system of protected areas nationwide that better represent ecosystems, increase connectivity to facilitate biota movement in response to stressors including climate change, and promote species persistence within intact landscapes).

### B. The Citizen Conservation Proposal

For the past two years, citizens came together to craft a Citizen Conservation Proposal for the GMUG National Forest. The citizens are active members of High Country Conservation Advocates, The Wilderness Society, Great Old Broads for Wilderness, Sheep Mountain Alliance, Ridgeway-Ouray Community Council, Western Colorado Congress, Western Slope Conservation Center, and San Juan Citizens Alliance, and they live, work and recreate in the GMUG region. They know the wild lands extremely well having, in some instances, hiked and skied for decades in the forest's backcountry. In crafting the proposal, these citizens visited the proposed areas, took photographs, drove boundaries, and met with community members. They worked hard (and are continuing to do so) to make sure to exclude areas where potential conflicts might arise – e.g., currently utilized motorized and mechanized trails. The citizens regard the proposal boundaries as dynamic; they are continuing to talk with community organizations and members and will refine boundaries if conversations reveal genuine conflicts of which they are not aware.

The Citizen Conservation Proposal consists of 33 narratives (containing 40 units) that warrant conservation protections in the revised forest plan because of their recreational, scenic, or ecological importance. Twenty-six of the units are recommended for wilderness (12 are stand-alone and 14 are additions to existing wilderness), 10 are proposed as special interest areas, two are proposed as wildlife linkages, one is an important bird area, and one is proposed as a watershed protection area for the Grand Junction watershed. The Citizen Proposal covers the Uncompahgre Mountains and Plateau, the Grand Mesa, and the mountains of the southeastern Gunnison Basin. The remainder of the national forest lands within Gunnison County are captured in a conservation proposal crafted by the Gunnison Public Lands Initiative (GPLI), a community-based collaborative consisting of a wide range of stakeholders.[37] The entire Citizen Proposal – including a summary of the 33 areas, an overview map, detailed narratives for each area that details why the area deserves to be recommended as wilderness or another type of conservation designation, and documented support from citizens, organizations, and businesses within the GMUG region -- is attached as Appendix 1. We strongly urge the Forest Service to adopt the Citizens Conservation Proposal and the collaboratively developed GPLI proposal[38] in its preferred alternative.

### C. Research Natural Areas

[37] See https://www.gunnisonpubliclands.org/.

[38] The Wilderness Society and High Country Conservation Advocates are members of GPLI.

One type of designated area that the Forest Service is expected to address in the land management planning process is Research Natural Areas (RNAs).[39] Per Forest Service Manual 4063, the GMUG National Forest must include analysis of, and recommendations for, the establishment of proposed Research Natural Areas, using the established objectives of the RNA system at FSM 4063.02 as criteria.[40] Forest Service policy directs that RNAs should be "large enough to provide essentially unmodified conditions within their interiors which are necessary . . . to protect the ecological processes, features, and/or qualities for which the [RNAs] were established."[41] The policy also emphasizes that "landscape-scale [RNAs] that incorporate several ecosystem elements are ideal, where feasible."[42] Proposed areas, to the degree possible, should be free from major human disturbance for the past 50 years, and should, where possible, encompass entire small drainages because they are easier to delineate and protect, and because they better maintain the interrelationships of terrestrial and aquatic systems.[43] In selecting and establishing a national network of RNAs, the Forest Service is required to "cooperate with universities, private and professional organizations, and State and other public agencies."[44] Plan components for recommended RNAs are required to maintain the area for "Research and Development, study, observation, monitoring, and those educational activities that do not modify the conditions for which the [RNA] was established."[45]

While we appreciate that the GMUG appended its chapter in the revised Assessment Report on designations with a supplement on RNAs, the information provided is inadequate to understand the adequacy of the current RNAs in fulfilling the agency's policy objectives for RNAs. The revised Assessment Report references a 1993 evaluation by the GMUG of potential Research Natural Areas which was then revisited in 2003 as part of the prior effort to revise the land management plan.[46] The report, however, does not provide a citation for the 1993 or 2003 efforts, and does not explain if and why a 25-year old inventory would be adequate today, especially in light of climate change which may

[39] 36 C.F.R. § 219.7(c)(2)(vii) (planning rule requirement to determine whether to recommend for designation any additional areas other than recommended wilderness and eligible wild and scenic rivers); FSM 4063.03 ("The selection and establishment of Research Natural Areas within the National Forest System primarily emerges from continuing land and resource management planning and associated environmental analyses (FSM 1920 and FSM 1950). Forest plans shall include analysis of, and recommendations for, the establishment of proposed Research Natural Areas.").

[40] The eight objectives are to: (1) Maintain a wide spectrum of high quality representative areas that represent the major forms of variability found in forest, shrubland, grassland, alpine, and natural situations that have scientific interest and importance that, in combination, form a national network of ecological areas for research, education, and maintenance of biological diversity; (2) Preserve and maintain genetic diversity, including threatened, endangered, and sensitive species; (3) Protect against human-caused environmental disruptions; (4) Serve as reference areas for the study of natural ecological processes including disturbance; (5) Provide onsite and extension educational activities.; (6) Serve as baseline areas for measuring long-term ecological changes. (7) Serve as control areas for comparing results from manipulative research; (8) Monitor effects of resource management techniques and practices.

[41] FSM 4063.1.

[42] *Id.*

[43] FSM 4063.2.

[44] FSM 4063.03.

[45] FSM 4063.02.

[46] Designations Chapter, Revised Assessment Report, pages 37-38.

demand a new look at the RNA system and its adequacy. The report also does not provide basic information on the current RNA system and its adequacy in relation to the GMUG. For instance, where are the gaps in the current RNA system, and can the GMUG help fill the gaps? Are the existing RNAs sufficient both in size and function, based on monitoring data?

The Gila National Forest, which is currently in the early stages of revising its land management plan, attempted to evaluate where gaps in protections to ecosystems exist in order to inform the identification of RNA candidates and other designations in the plan revision. Forest staff evaluated the proportion of ecological response units (ERU) located within designated areas, and shared that information in its final Assessment Report.[47] The Wilderness Society conducted a similar analysis evaluating the proportion of each ecosystem type within protected areas on the GMUG National Forest, and the degree to which the proportion would be increased if individual CRAs were put into a higher level of protection. We submitted this analysis in our pre-assessment letter submitted January 17, 2017 and in our letter on the wilderness evaluation dated March 6, 2018. We are re-attaching it to this letter as Exhibit 3. The Southwestern Region wrote a guidance paper on addressing RNAs in forest planning in 2009, and according to the paper conducted a regional gap and needs analysis.

The Forest Service's website (as of April 9, 2018)[48][49] makes it clear that while the RNA system has expanded over the past decades, "**there are still many ecosystem types which are not represented**. It has been especially challenging to secure RNA designations in the most productive forest and rangeland ecosystems where commodity uses have been concentrated. New areas which are proposed to fulfill gaps in the RNA system are evaluated through ongoing National Forest and National Grassland Land Management Planning efforts." Emphasis added.

With FS policy direction to use best available science to analyze and possibly recommend additional RNAs in the planning process, and the paucity of information related to RNAs in the assessment report, the GMUG needs to conduct a comprehensive analysis of the current RNAs in relationship to the policy goals and objectives set forth in FSM 4063, identify gaps in the RNA system and which lands and waters on the GMUG could, if recommended for designation, help fill the gaps - using up-to-date information and best available science. In doing so, the GMUG National Forest should identify opportunities to establish RNAs that are large enough to provide for unmodified conditions and processes in the area's core, and, to the degree possible, landscape-scale RNAs that incorporate several ecosystem elements, as directed in the Manual and by the principles of conservation biology. Protecting as RNAs several adjacent intact habitats enables the protection and study of the individual systems and their interactions. Further, redundant areas may be necessary to maintain a range of study areas and sufficient population sample sizes.[50]

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[47] Gila Final Assessment Report, pages 604-606 *available at* https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd544951.pdf

[48] Forest Service, 2010. Research Natural Area Process for Forest Plan Revision undue the 1982 Planning Rule Provisions. Research Natural Area Work Group October 30, 2009, Operational Draft. *Available at* https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5181253.pdf

[49] https://www.fs.fed.us/rmrs/about-rnas

[50] Spatial redundancy of ecological subsystems is desired for purposes of experimentation and replication. Redundancy of subsystems or components of an ecosystem is also important to conservation planning.

Climate change presents a special challenge, with the potential for ecosystem boundaries and characteristics to shift within relatively short timeframes. In recommending RNA designations, the GMUG National Forest must take into account the possible effects of climate change on existing and recommended RNAs by, for instance, making RNA boundaries larger to give ecosystems and species room to adapt. The Forest Service should create landscape-scale RNAs when possible that protect multiple and proximal intact ecosystems, as well as protect zones between RNAs to enable plant and animal species migration. The GMUG in the draft EIS should analyze and disclose the effects of climate change on the proposed RNA system and explain how the forest is meeting its substantive responsibilities for establishing an RNA system that achieves the identified objectives under each alternative.

Lastly, we recommend that the plan include a forest-wide goal that states:

*A network of Research Natural Areas represents the full diversity of ecosystems and ecological variability found across the forest and region. The network is designed to absorb predicted dynamics due to climate change. Individual RNAs are large enough to ensure that interior areas and the processes that define them remain unmodified. As much as possible, they are designed at the landscape scale to incorporate multiple ecosystems and ecological situations. The network has adequate redundancy to ensure that ecosystems in different life phases can exist. For instance, ecosystems may be represented in a pre-burnt, recently burnt, and decades-old burnt condition to maximize protection of natural diversity and research opportunities. Redundant areas may also be necessary to maintain a range of study areas and sufficient population sample sizes. The RNA network serves to preserve and maintain biological diversity, and as a research laboratory and educational sites, a baseline for measuring long-term ecological change, reference areas for the study of natural ecological processes including disturbance, and control areas for comparing results from manipulative research.*

**D. Conservation Watersheds**

We also encourage the GMUG National Forest to identify and designate a network of conservation watersheds designed to protect and maintain the most intact aquatic systems as well as restore degraded watersheds of high importance for stewardship of fish and aquatic resources over long periods of time. The Washington Office endorsed the designation of conservation watersheds in a September 30, 2015 memo to regional foresters, explaining that "Conservation Watersheds are . . . strategic and long-term designations helping to provide conditions that maintain or restore habitat for aquatic species in highly dynamic environments over the duration of a land management plan."[51] Attachment A to the memo explains that conservation watersheds are a dynamic and flexible designation that generally "1) conform[] to sub-watershed boundaries and generally rang[e] in size from 10,000 to 40,000 acres, 2) contain[] threatened, endangered, or at-risk species, and 3) form[] a connected network of aquatic habitats important for ensuring the long-term persistence of those species." Conservation Watersheds

Redundancy can reduce the likelihood that elements (e.g., species, rare habitats) will be lost as a result of stochastic events or other stressors.

[51] Memo from Chris French & Robert Harper to Regional Foresters Re "Clarification on Conservation Watersheds in Land Management Plans" (Sept. 30, 2016). Attached as Exhibit 4.

are also a foundational concept in the Forest Service's recently revised aquatic strategy entitled Rise to the Future: National Fish and Aquatic Strategy.[52] The Flathead National Forest proposed a Conservation Watershed Network in its recent revised forest plan.[53] Similarly, the Sierra, Sequoia, and Inyo National Forests are developing an aquatic conservation strategy that will include designation of "critical aquatic refuges" as part of their ongoing plan revisions.

While we did not have the resources or scientific expertise to include specific recommendations for conservation watersheds within the Citizen Proposal, we really like the concept and urge forests to embrace it in plan revisions – the appropriate venue in which to consider large-scale and long-term restoration designations.

### E. Roadless Areas

The scoping notice identifies the need to incorporate direction from the Colorado Roadless Rule into the forest plan. We like the scoping notice's approach of incorporating upper tier areas into management areas designed to allow natural processes to dominate and limit human intervention and incorporating lower tier areas into a backcountry management area. The plan must also provide plan components for the management of the CRAs that is compliant with the Colorado Roadless Rule and advances the distinctive role and contribution of the GMUG. We recommend that the management areas include desired conditions that herald the CRAs for their undeveloped character, contribution to biodiversity and landscape connectivity, and quality outdoor recreation and learning opportunities (e.g., DC#1: Roadless areas encompass large, relatively undisturbed landscapes that are important to biological diversity and the long-term survival of at-risk species. They serve as safeguards against the spread of invasive plant species and provide reference areas for study and research, and they contribute to landscape scale connectivity; and DC#2: Inventoried Roadless Areas appear natural, have high scenic quality, and provide high quality and sustainable opportunities for dispersed recreation.) They should also include standards that: 1) all management activities conducted within CRAs shall maintain or improve roadless characteristics; 2) prohibits road building and timber cutting except as allowed per the Colorado Roadless Rule, and 3) all projects must maintain the highest scenic integrity level. Plan components should include an objective to obliterate unneeded, closed, temporary, or unauthorized roads in order to enhance roadless character and ecological integrity. CRAs should be assigned to primitive and semi-primitive ROS settings (see comments on Sustainable Recreation later in this letter). CRA acres that are currently non-motorized should be assigned a non-motorized ROS setting in order to maintain the setting over the duration of the plan.

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[52] https://www.fs.fed.us/naturalresources/fisheries/resources/risetothefuturestrategynov2017.pdf, pages 6 and 9 ("identification of conservation watersheds is intended to help protect and maintain the most intact aquatic systems as well as restore degraded watersheds of high importance for stewardship of fish and aquatic resources over the long term.")

[53] *See* Flathead National Forest Revised Plan at 18-24 & Appendix E, *available at* https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd567979.pdf and attached in Exhibit 5.

### F. The GMUG National Forest should analyze a broad range of alternatives in the draft EIS.

The analysis of alternatives under NEPA is the "heart" of an EIS.[54] An agency must "[r]igorously explore and objectively evaluate all reasonable alternatives" to a proposed action.[55] Consistent with NEPA's basic policy objective to protect the environment, this includes more environmentally protective alternatives.[56] The "touchstone" of the inquiry is "whether an EIS's selection and discussion of alternatives fosters informed decision-making and informed public participation."[57]

The GMUG National Forest should include a broad range of conservation designations across the draft EIS alternatives.[58] This will enable a robust analysis of the trade-offs and impacts. At least one alternative should recommend all, or almost all, of the qualifying areas for wilderness,[59] while at least one other should include all the areas (recommended wilderness and other conservation designations) included within the Citizen Proposal and GPLI Proposal. These suggested alternatives are reasonable and will foster informed public participation and decision-making.

### G. The draft EIS should analyze how each alternative contributes to ecological integrity, the diversity of plant and animal communities, and climate change adaptation.

In the draft EIS, the Forest Service should analyze how the alternatives representing a broad range of wilderness recommendations and other conservation designations contribute to ecological integrity and the diversity of plant and animal communities. Indicators of these outcomes include, but are not limited to, representation of under-represented ecosystems, protection of areas with high biodiversity,

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[54] 40 C.F.R. § 1502.14.

[55] *Id.* § 1502.14(a); *see also* 42 U.S.C. § 4332(2)(E) (agencies must "study, develop and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources").

[56] 40 C.F.R. § 1500.2(e) (agencies must "[u]se the NEPA process to identify and assess reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment"); *see also, e.g.*, *Kootenai Tribe of Idaho v. Veneman*, 313 F.3d 1094, 1121-22 (9th Cir. 2002) (citing cases), *abrogated on other grounds by The Wilderness Soc'y v. U.S. Forest Serv.*, 630 F.3d 1173, 1178-80 (9th Cir. 2011) (en banc). "The existence of a viable but unexamined alternative renders an [EIS] inadequate." *Mont. Wilderness Ass'n v. Connell*, 725 F.3d 988, 1004 (9th Cir. 2013) (quotations and citation omitted).

[57] *Mont. Wilderness Ass'n*, 725 F.3d at 1005 (quotations and citation omitted).

[58] *See, e.g.,* Council on Environmental Quality, *NEPA's Forty Most Asked Questions*, 46 Fed. Reg. 18,026 (Mar. 23, 1981) ("When there are potentially a very large number of alternatives, only a reasonable number of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS. An appropriate series of alternatives might include dedicating 0, 10, 30, 50, 70, 90, or 100 percent of the Forest to wilderness."). This approach conforms with the 9th Circuit Court of Appeals decision in *California v. Block*, 690 F.2d 753, 765, 768-69 (9th Cir. 1982) (despite considering an alternative that allocated 100% of inventoried roadless areas to wilderness, "it was unreasonable for the Forest Service to overlook the obvious alternative of allocating more than a third of the RARE II acreage to a Wilderness designation").

[59] *See* FSH 1909.12, ch. 70, § 73. In general, a determination to exclude a potential wilderness area as identified in FSH 1909.12, chapter 70, section 72 from NEPA analysis altogether should be based only on information related to the evaluation criteria defined in Chapter 70 that has been subject to public input, and/or on input from the public on that information.

protection of areas (terrestrial and aquatic) important to connectivity, and protection of aquatic resources including groundwater recharge. It should also evaluate how well each alternative prepares the GMUG to adapt to a rapidly changing climate by, for instance, providing for a connected network of wildlands in which species can move through a variety of ecosystems (including aquatic) without major impediments.[60]

### H. Management of Recommended Wilderness Areas

The 2012 planning rule requires that the plan include plan components for recommended wilderness areas that "protect and maintain the ecological and social characteristics that provide the basis for their suitability for wilderness designation."[61] "Any area recommended for wilderness . . . designation is not available for any use or activity that may reduce [its] wilderness potential."[62] To comply with this direction, we request that GMUG National Forest establish a standard as well as appropriate suitability determinations to manage areas recommended for wilderness exclusively for non-motorized and non-mechanized uses. Allowing non-conforming uses such as motorcycles or mountain bikes degrades opportunities for solitude and other wilderness characteristics and imposes a significant barrier to achieving permanent protection through congressional designation, thereby reducing wilderness potential. Similarly, Recreational Opportunity Spectrum (ROS) classifications in the plan should categorize recommended wilderness as primitive or semi-primitive non-motorized, and another standard should require that the areas be managed to maintain, restore, and enhance those settings.

### I. Suitability of Established and Recommended Designated Areas

Places that are designated or recommended for designation because of their conservation values should be found unsuitable for timber harvest and mineral leasing and sales. The Citizen Proposal provides additional detail on management recommendations for each of the proposed designations, and notes where exceptions to this general rule may be warranted. Designated areas with unique or special values, while part of the larger multiple use mix, should be managed to maintain and enhance the values for which they are designated or recommended for designation. Energy and mineral extraction and industrial logging are antithetical to the protection of natural resources and unblemished backcountry experiences.

### J. Qualifying areas not recommended for wilderness should be assigned protective management prescriptions.

Some wilderness inventory units will not be recommended for wilderness (or another conservation designation) in the revised forest plan. These areas will encompass existing CRAs, as well as newly inventoried potential wilderness areas that will constitute a set of lands within the GMUG National

[60] For a discussion of the values of protected areas networks, see for example Aycrigg et al. 2013. *See also* pp. 13-14 of Appendix 2.
[61] 36 C.F.R. § 219.10(b)(1)(iv).
[62] Forest Service Manual (FSM) 1923.03(3).

Forest that are categorized as unroaded for the purposes of the wilderness inventory and are largely undeveloped. We request that the Forest Service assign these lands to a management area (or combination of areas) designed to maintain unroaded character, and not assign them to a catch-all forest matrix management area that fails to distinguish them from more developed and roaded lands. Doing so will preserve the status quo while assuring that these lands will continue to provide key ecosystem services over the life of the plan. The proposed backcountry management area could be a logical allocation for some or all of these areas. Plan component should encourage restoration of unneeded ML1 roads and unauthorized routes.

More specifically, maintaining or restoring unroaded and undeveloped natural lands provides numerous ecological benefits that align with the substantive requirements of the 2012 planning rule. They safeguard biodiversity, enhance ecosystem representation, facilitate connectivity (Loucks et al. 2003; USDA 2001; Crist et al. 2005; Wilcove 1990; The Wilderness Society 2004; Strittholt and Dellasala 2001; DeVelice and Martin 2001), provide high quality water, soil, and air resources (Anderson et al. 2012; Dellasala et al. 2011); and protect drinking water sources. They also serve as ecological baselines to facilitate better understanding of our impacts to other landscapes (Arcese and Sinclari 1997). All of these functions contribute to enhancing the GMUG National Forest's capacity to adapt to climate change. Appendix 2 (pages 13-14 in the section entitled *Benefits of Roadless Areas and Roadless Area Networks to Climate Change Adaptation)* provides an in-depth description of the values of unroaded and undeveloped lands.

**K. Need for Change**

The Needs for Change section of the scoping notice (part II, starting at page 3) does not explicitly state the need to consider, recommend (or establish) additional conservation designations. This ignores direction in the 2012 planning rule that requires forests, in plan revision, to identify, evaluate, and possibly recommend additional lands for wilderness designation[63], and manage them to maintain their wilderness characteristics[64]; identify eligible wild and scenic river segments[65] and manage them to maintain their eligibility[66]; and identify and possibly recommend other types of designated areas[67], and manage them to maintain their primary values.[68] It also ignores that the GMUG National Forest in the Designations Chapter of the Revised Forest Assessment Report identified a need to consider additional designations on the GMUG.[69]

[63] 36 C.F.R. § 219.7(c)(2)(v)
[64] 36 C.F.R. § 219.10(b)(iv)
[65] 36 C.F.R. § 219.7(c)(2)(vi)
[66] 36 C.F.R. § 219.10(b)(v)
[67] 36 C.F.R. § 219.7(c)(2)(vii)
[68] 36 C.F.R. § 219.10(b)(vi); FSM 2372.03 ("Manage other values or resources in the area to a level compatible with the area's primary values and overall National Forest management objectives.")
[69] See generally pages 35-51 of the Designations Chapter, Final Assessment Report. For specific examples, *see* page 49 of the ("Consider the San Juan Mountain Wilderness and the Gunnison Public Lands Initiative proposals and work collaboratively with proponents through the process to evaluate wilderness potential and development of

The GMUG National Forest must modify the Need for Change statement to reflect the planning rule requirements and the findings in the Assessment Report. Specifically, we recommend that the GMUG National Forest include the following statement in the Need for Change section:

> *Consider the need for additional designations that enhance ecological sustainability, biodiversity, research opportunities, and backcountry recreation.*

***Recommendation: In its draft EIS and land management plan, the GMUG National Forest should:***

- ***Adopt in its preferred alternative the conservation designations in the Citizen Proposal and the GPLI Proposal.***
- ***Identify and designate a network of conservation watersheds designed to protect and maintain the most intact aquatic systems as well as restore degraded watersheds of high importance for stewardship of fish and aquatic resources over long periods of time.***
- ***Ensure a broad range of conservation designations across the draft EIS alternatives. At least one alternative should recommend all, or almost all, of the qualifying areas for wilderness[70], while at least one other should include all the areas (recommended wilderness and other conservation designations) included within the Citizen Proposal and GPLI Proposal.***
- ***Analyze how each alternative contributes to ecological integrity, the diversity of plant and animal communities, and climate change adaptation.***
- ***Ensure plan components for recommended wilderness areas maintain the suitability of future designations by disallowing non-conforming uses. Establish a standard to categorize recommended wilderness as primitive or semi-primitive non-motorized, and another standard to require that the areas be managed to maintain, restore, and enhance those settings.***
- ***Ensure plan components for Colorado Roadless Areas maintain or improve roadless characteristics.***
- ***Assign places with wilderness characteristics that are not recommended for wilderness to management or geographic areas that will maintain their unroaded character. Areas that are currently non-motorized should be assigned to a primitive or semi-primitive non-motorized ROS setting. Areas should have a desired condition that heralds the lands for their undeveloped character, contribution to biodiversity and landscape connectivity, and quality outdoor recreation and learning opportunities.***
- ***Conduct a comprehensive analysis of the current RNAs in relationship to the policy goals and objectives set forth in FSM 4063, identify gaps in the RNA system and which lands and waters on the GMUG could, if recommended for designation, help fill the gaps. RNAs should be large enough to provide for unmodified conditions and processes in the area's core, and, to the degree possible, landscape-scale RNAs that incorporate several ecosystem elements. In the***

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alternatives for wilderness and special management area recommendations."); *also see* page 51 ("Evaluate proposed research natural areas to determine areas to be carried forward in the revised plan.").

[70] *See* FSH 1909.12, ch. 70, § 73. In general, a determination to exclude a potential wilderness area as identified in FSH 1909.12, chapter 70, section 72 from NEPA analysis altogether should be based only on information related to the evaluation criteria defined in Chapter 70 that has been subject to public input, and/or on input from the public on that information.

***draft EIS, analyze and disclose the effects of climate change on the proposed RNA system and explain how the forest is meeting its substantive responsibilities for establishing an RNA system that achieves the identified objectives under each alternative. Establish a forestwide goal related to RNAs.***

- ***Incorporate into the stated Needs for Change a need to identify additional designations that enhance ecological sustainability, biodiversity, research opportunities, and backcountry recreation.***

## V. Sustainable Recreation

### A. Components of a Sustainable Recreation Framework

The 2012 planning rule directs forests to provide for sustainable recreation, defined as "the set of recreation settings and opportunities on the National Forest System that is ecologically, economically, and socially sustainable for present and future generations."[71] The rule also emphasizes the importance of connecting people to nature.[72] Achieving this direction requires an interdisciplinary approach involving the built environment, human behavior, economics, education, and natural and cultural resource management. The revised plan should establish a recreation management framework that addresses and integrates these topics. We have attempted to craft such a framework. It contains eight elements described below. For each we provide a description of the element and then provide GMUG specific recommendations.

(1) Distinctive roles and contributions. The planning rule requires the plan to identify the forest's distinctive role and contribution within the broader region.[73] The role the forest plays in providing outdoor recreation is a major part of the forest's larger role and contribution. Describing the recreation specific role and contribution will help guide the allocation of recreational settings and opportunities, and integrating recreation with other uses. The GMUG's recreational niche is to provide the scenic backdrop to the surrounding region; backcountry access to remote alpine and canyon/plateau settings; world class alpine, backcountry and dispersed nordic skiing; mountaineering on the high peaks; high quality hunting, angling, and wildlife watching; heritage tourism (e.g., old mining towns and railroad infrastructure); and close-to-town trail access for all forms of recreational use. Specific areas of the forest also provide iconic and world-class opportunities for hiking, mountain biking, rock climbing and whitewater paddling where the unique recreational resources (trails, cliffs or rapids) are highly exceptional and attractive to distinctive users.

(2) Recreational regions. Dividing up the planning area into recreational regions with distinct characters, roles, and contributions is a helpful tool for designing recreational settings that "fit" the region and communicating the recreation vision to surrounding communities and the public. It particularly makes sense on the GMUG, which is spread out and encompasses distinctly different landscapes. For these

[71] 36 C.F.R. § 219.19
[72] 36 C.F.R. § 219.10(a)(3) and (4) and (10)
[73] 36 C.F.R. §. 219.7(f)(ii)

reasons we recommend that the GMUG plan establish recreational regions based on geographic areas in the revised plan; logical choices include the Uncompahgre Mountain Region, the Uncompahgre Plateau and Canyon Region, the Grand Mesa Region, the North Fork Region, and the Gunnison Basin Region. Table 1 describes the general character and distinctive role and contribution of each of these regions. .

For each recreational region, the Plan should provide a narrative that explains current conditions, desired conditions and settings, challenges and opportunities, and management approach including specific possible actions in next five and ten years.

Table 1.

| **Region** | **Character and Distinctive Features** | **Role and Contribution** |
|---|---|---|
| Uncompahgre Mountains | Massive and jagged mountain ranges with wild and remote backcountry. Numerous historic mining sites. | Majestic and jagged alpine peaks cherished by mountaineers and skiers; scenic backdrop to historic towns; wild backcountry alpine landscapes sought out by a variety of recreationists for solitude, challenge, and beauty. Contains Telluride Ski Area. |
| Uncompahgre Plateau and Canyons | Massive plateau cut by stunning river canyons punctuated with imposing rock walls. Diverse lower elevation forests including big expanses of aspen. Transition zone between mountains and adjacent lower elevation desert. | Provides a beautiful backdrop for scenic river canyon drives. Coveted by hunters and hikers in particular. |
| Grand Mesa | Largest flat-top mountain in the world. Numerous reservoirs, lakes and wetlands. | Provides frontcountry high elevation access to nearby communities. Coveted by snowmobilers, backcountry skiers, hikers, and sportsmen. Contains the well-known Crag Crest trail and Kannah Creek Trails. |
| North Fork | Rolling mountains and mid-elevation forests surrounding primarily agricultural communities. Contains large roadless areas. | Backdrop to established agricultural communities. Sportsmen's paradise coveted for its dispersed backcountry hunting, camping, hiking, riding, driving, etc. |

| | | |
|---|---|---|
| Gunnison Basin | On both sides of the Gunnison River Valley, the forested mountains vary from high alpine peaks to rolling lower elevation areas. Important Colorado River headwaters. Critical link between several adjacent mountain ranges. | Coveted by sportsmen and other backcountry recreationists for both accessible montane landscapes and remote Wilderness and roadless areas. World-class mountain biking and backcountry skiing are highly accessible. Contains Crested Butte ski area. |

(3) Desired Recreation Opportunity Spectrum (ROS) Settings. The desired ROS settings are the heart of sustainable recreation framework. They describe the collage of settings (physical, social and managerial) where specific experiences and benefits are derived. The plan must include desired conditions for sustainable recreation using mapped desired recreation opportunity spectrum classes[74,75] supplemented with plan components that ensure ROS settings are achieved and sustained over the life of the plan.[76] These should include standards and guidelines to prevent erosion of the settings, unsuitability for activities that are discordant with the setting, and objectives to transition from the current setting to the desired setting where the two are not aligned. Primitive and semi-primitive non-motorized settings should be found unsuitable for timber harvest, surface disturbance associated with oil and gas operations, and other discretionary mineral disposals. These activities fundamentally shift the setting character from predominantly natural to more industrial and hence if allowed would erode the setting. Vegetation management in these settings, once completed, should not be noticeable (e.g., prescribed burns, no slash piles, blends in with surrounding vegetation). The plan should include two forest-wide standards related to ROS: projects must be compatible with the ROS setting, and all motorized road, trail and area designations will be consistent with ROS settings.

Each of the GMUG's recreational regions described in Table 1 will likely offer a spectrum of desired settings from rural to primitive, reflective of the region's distinctive role and contribution. Primitive and semi-primitive settings should be assigned to the remote and wild lands, including potential wilderness inventory areas (pursuant to FSH 1909.12, chapter 70, section 71), eligible wild rivers, Colorado Roadless Areas, designated wilderness areas, recommended wilderness areas, and the Tabeguache and Roubideau Areas. Also, potential wilderness inventory areas (pursuant to FSH 1909.12, chapter 70, section 71) that are currently not legally used for motorized recreation should be assigned to primitive or semi-primitive non-motorized classes to preserve remaining non-motorized landscapes. The GMUG should also make sure to assign sensitive and important habitats as much as possible to non-motorized settings, and when necessary to maintain ecological integrity, constrain recreational access or use (e.g., dogs on leash, seasonal access, stay on trails) using standards and guidelines. Front-country settings (often roaded natural, rural, or urban) should be assigned to lands proximal to communities and actively

[74] FSM 23.23a(1)(d)

[75] These can be the ROS classes described in FSM 2310, specific settings for designated areas, and ROS sub-classes that provide further distinction within the larger categories.

[76] FSM 23.23a(2)(a)

used for daily or high-use recreation, as well as popular scenic corridors such as the San Miguel River Corridor. In both the front-country and backcountry settings, the GMUG should strive to maintain or restore large tracts with non-motorized settings such that non-motorized recreationists can experience quiet and solitude for the duration of their outings.

The GMUG should adopt and implement seasonal-specific (i.e., summer and winter) ROS classifications.[77] Forest visitors' experiences, expectations, and desires change with each season, as do the locations and distributions of recreational settings. In addition, winter ROS settings will set the stage for winter travel planning required under the 2015 Over-Snow Vehicle Rule.[78] The Flathead National Forest utilized both in its final land management plan (published in 2017) and can serve as a good example of how to establish both.[79] The winter ROS settings should be designed so that non-motorized experiences can be easily enjoyed in both the front-country and backcountry. Non-motorized winter settings should be assigned to areas important to wildlife such as lynx habitat or ungulate winter range. Similar to the summer allocations, the GMUG should constrain recreational use and activities as necessary to protect species habitat and viability (e.g., seasonal restrictions to accommodate hibernation). The plan should communicate that OSV route and area designations will be consistent with ROS classifications, but that the extent of permitted OSV use will be determined through implementation-level travel planning to delineate discrete, open areas and routes within areas with motorized settings.

The alternatives presented in the draft environmental impact statement should offer different arrangements of settings within the recreation regions reflective of different experiential emphases (e.g., high-tech and faster paced, nature-based, primitive). The no action alternative should show an accurate inventory of current ROS settings to enable an informed dialogue around alternative impacts.

(4) Scenery Management. Because outdoor recreationists seek out and enjoy natural appearing landscapes, scenery management is genuinely important to delivering high quality recreational experiences. The plan should include plan components that articulate desired scenery management levels and ensure that they are met, including objectives to close the gap between current and desired scenic levels. The desired scenic levels should of course be compatible with the desired ROS settings. For the GMUG in particular where the National Forest lands provide a dramatic backdrop to communities, scenic drives, and recreational destinations, it is very important to include plan components that will maintain or when necessary restore the highest levels of scenic integrity to these places. For example, the 205-mile West Elk Loop Scenic Byway encompasses some of the most beautiful scenery on the GMUG and is a destination for visitors from early summer to late fall, coalescing around the loop's incredible aspen forests as they turn golden.

[77] *See* FSH 1909.12, § 23.23a(1)(d)(1) (encouraging development of seasonal ROS "to depict [seasonal] changes in the location, mix, and distribution of setting attributes, access, and associated opportunities (both motorized and non-motorized)" and integrate "with other seasonally relevant multiple uses, resource values and management objectives, such as protecting crucial winter range").
[78] 36 C.F.R. part 212.
[79] Flathead National Forest Land Management Plan. December 2017. Pages 58-63. Exhibit 7.

(5) Iconic Recreational Places. Iconic recreational places are areas on the forest with distinctive values, qualities, or special meaning to people and are integral to connecting people to the outdoors. Recreational places can be large or small, front-country or backcountry, and are distinct from recreational regions discussed above. Some recreational places may warrant a special designation pursuant to FSM 2370 because of their outstanding botanical, zoological, geological, cultural, scenic, or recreational values. This concept meshes well with that offered in the GMUG's scoping notice proposing management or geographic area assignments to Recreation Focus Areas and Special Areas/Unique Landscapes.[80]

While the GMUG abounds with extraordinary recreational destinations, the GMUG should identify those recreational places that require specific management direction supplemental to that provided in the guiding management/geographic area and ROS setting in which it is placed. The plan should show the recreation places on a map and provide a narrative describing the place, its special values and recreational characteristics (e.g., current opportunities, infrastructure, use demographics and trends, special uses, interpretation, and capacity), management challenges and opportunities, educational opportunities, and management approach. Specific areas that we recommend as Recreational Places (non-inclusive list) are listed in Table 2.

Table 2. Examples of Recreational Places Candidates (non-inclusive) by Recreational Region.

| **Region** | **Recreational Places Candidates** | **Rationale** |
|---|---|---|
| Uncompahgre Mountains | [14,000+ foot peaks: Uncompahgre, Wetterhorn, San Luis, Sneffels, and Wilson, Alpine Loop, San Juan Highway | Popular 14ers in sensitive alpine environments… |
| Uncompahgre Plateau and Canyons | San Miguel River Canyon | Stunning drive through a red rock canyon. |
| Grand Mesa | Grand Mesa Scenic Byway | Highly accessible summer trails and winter dispersed recreation off Hwy 65 |
| North Fork | West Elk Loop | |
| Gunnison Basin | West Elk Loop; Alpine Tunnel; Slate River Drainage; Washington Gulch; East River Corridor; Taylor Park 14,000+ foot peaks: Castle Peak | Highly accessible summer trails and multi-use winter recreation areas near Crested Butte. High-intensity dispersed camping needs management. |

(6) Suitability. Suitability conveys which lands within the plan area are suitable and/or not suitable for various uses or activities. Suitability determinations should address both legal suitability (e.g., motorized use is prohibited in Wilderness) and practical suitability (e.g., based on terrain, snowpack, noise propagation, wildlife habitat). Suitability can be attached to ROS settings (summer and winter),

[80] Scoping notice at 7.

management areas, geographic areas, and recreational places, as well as based on operational conditions within those larger allocations.

The GMUG is required to determine suitability for motorized recreation (summer and winter) consistent with the desired ROS class.[81] The most remote and wild places on the GMUG should be found unsuitable for motorized recreation including wilderness, recommended wilderness, Roubideau and Tabeguache Areas, and currently non-motorized portions of potential wilderness areas (pursuant to FSH 1909.12, chapter 70, section 71). Research natural areas, sensitive wildlife habitats, steep and erodible slopes, and important non-motorized recreation destinations should also be found unsuitable for motorized use. Recommended wilderness areas should also be found unsuitable for mechanized use.

Specific to the winter, steep slopes and windswept ridgelines, low elevation areas without adequate snowpack[82], areas with dense tree cover, and important habitat for wintering fish and wildlife should also all be found unsuitable. The final plan should include an objective that areas found unsuitable for winter OSV use will be subject to appropriate closure orders within one year of plan approval. It should also include clarifying language that OSVs will not necessarily be permitted in all suitable areas.[83] Rather, suitable areas are a starting point for conducting implementation-level travel planning to designate particular areas and trails in accordance with the ORV Executive Order minimization criteria.[84]

We want to bring to your attention a recent study conducted in Colorado forests that can help shed light on conducting OSV suitability determinations. Olsen et al (2017) modeled terrain selection of motorized and non-motorized recreationists, including snowmobile, backcountry ski, and snowmobile-assisted hybrid ski to better understand the environmental characteristics favored by winter recreationists. The intent of this study was to help Forest Service staff predict areas of potential conflict between motorized and non-motorized winter recreationists. Field locations were Vail Pass and the San Juan Mountains. According to the model developed in this study, areas predicted to have only motorized recreation were more likely to occur further from highways, with greater forest road densities, lower canopy cover, and smoother, less steep terrain, while areas with only non-motorized recreation were closer to highways, with lower forest road densities, more canopy cover and steeper terrain. This work provides spatially detailed insights into terrain characteristics favored by recreationists, allowing managers to maintain winter recreation opportunities while reducing interpersonal conflict or ecological impacts to sensitive wildlife.

(7) Access and Infrastructure. Most recreationists enjoy the national forest using recreational infrastructure (e.g., trails, roads, boat ramps, campgrounds, picnic areas). The type, condition, and location of access routes and recreational facilities is key to providing high quality recreation

[81] FSH 1909.12, chapter 20, section 23.23a(2)(d)
[82] 36 C. F. R. §212.81 (OSVs are restricted to a designated system located where snowfall is adequate for that use to occur).
[83] *See* FSH 1909.12, ch. 20, § 22.15(1) (a suitability determination "is not a commitment to allow such use but only an indication that the use might be appropriate").
[84] Exec. Order No. 11,644, § 3(a), 37 Fed. Reg. 2877 (Feb. 8, 1972), *as amended by* Exec. Order No. 11,989, 42 Fed. Reg. 26,959 (May 24, 1977).

experiences. The infrastructure should be compatible with the desired setting and should be designed and managed to provide quality opportunities for envisioned uses. Plan components should direct that infrastructure is located to minimize and mitigate adverse impacts to aquatic and terrestrial ecosystems[85], is appropriately sized[86], can be maintained under anticipated funding streams[87], and is designed to enhance people's connections to the land.[88] Plan components should address gaps between current and desired infrastructure (e.g., for instance, identify where travel planning needs to occur and include an objective to do it).

The GMUG periodically should conduct an assessment of the condition and use of recreation infrastructure (e.g., update the recreational facilities analysis). This will help identify and highlight the financial resources required to maintain current recreation infrastructure and provide estimates for maintenance costs of new infrastructure. The assessment should identify major gaps in current maintenance needs which may be contributing to environmental degradation, user safety concerns and diminished user experiences in relation to the desired ROS setting. The assessment should be used to help determine what level of infrastructure development is achievable and feasible to maintain within Recreation Focus Areas, Recreation Places, and ROS regions. Plans for new infrastructure development should include a cost analysis for both construction and on-going maintenance needs based on findings in the Recreation Infrastructure Assessment.

In the analysis, the GMUG should identify where infrastructure is contributing to resource degradation, is incompatible with desired setting, or is not contributing to high quality recreation experiences. See more comments on infrastructure in section VII of this letter.

(8) Programmatic Plan Components. In addition to plan components designed to achieve desired settings, the GMUG should develop program specific plan components that further the distinctive roles and contributions of the forest; addresses challenges and opportunities; and ensures sustained flow of benefits. The plan components should address the recreation-related programs on the GMUG, including wilderness management, developed recreation, dispersed recreation, rivers, trails, heritage management, scenery management, interpretation and education, and designated area management. A logical approach would be to identify desired conditions, objectives, suitability, standard, and guidelines for each program area. Table 3 provides an example of one desired condition and supporting plan components for the Wilderness Management program.

Table 3. Example of possible approach to designing and displaying recreation program specific plan components in the revised GMUG plan.

| **Wilderness Management** | |
|---|---|
| Desired Condition | Recommended wilderness areas appear and feel natural to visitors. They are places where natural processes dominate and they contribute to landscape scale protected networks. They |

[85] 36 C. F. R. § 219.8 and 219.9 requires that plan components achieve ecological sustainability.
[86] 36 C.F.R. § 218.10(a)(3)
[87] *Ibid.*
[88] 36 C.F.R. § 219.8(b)(6)

| | |
|---|---|
| | provide visitors opportunities to explore vast areas away from the "built" civilization and experience wildness and solitude. |
| Objective | Obliterate unauthorized routes within five years. |
| Suitability | Mineral leasing and sales are not suitable. Timber harvest is not suitable. Motorized and mechanized recreation is not suitable. |
| Standard | Management activities utilize minimize tool approach.<br>Mechanized and motorized public use is prohibited. |
| Guideline | Trailhead facilities and trail infrastructure are rustic and unobtrusive. |

Below we provide a list of recreation program-specific plan components that we think are important to include in the GMUG revised plan. While we provide a discrete list here, our hope is that they would be integrated into a logical presentation of plan components by recreation program similar to the example above.

Recommended Wilderness Management:

> Standard: Mechanized and motorized public use is prohibited. Rationale: See Designations Section above at IV. H.
>
> Suitability: Unsuitable for mechanized and motorized use, timber harvest, mechanical timber cutting, and mineral leasing and sales.

Dispersed Recreation and Travel Management:

> Desired condition: Visitors enjoy the forest through an array of trail opportunities. Trails are well-maintained and provide the appropriate level/character of signage and management presence commensurate with the ROS setting. Users on trails feel safe and do not experience significant conflict because of incompatible trail uses/speeds. Trail densities are below thresholds to reduce habitat fragmentation and disturbance. Best management practices are in place on all trails.
>
> Objective: Within one year, start winter travel management planning. Rationale: The GMUG is obligated per subpart C of the Travel Management Rule to establish a designated system for over-snow vehicles. The GMUG should establish this objective to communicate and commit to the public that winter travel management planning is forthcoming.
>
> Objective: Where not already completed, designate trails for mechanized uses within five years. Rationale: It is important that mountain bikes stay on designated trails and not ride cross-country. Growing popularity plus new bike technology has the potential to lead to significant ecological and social impacts if vehicles stray off trails designed for them.

Objective: Within six months after a decision that changes travel management designations (motorized and non-motorized), changes will be incorporated into INFRA and any other relevant data bases. Rationale: We are finding that discrepancies exist between trail designations established in plans and associated Record of Decisions are not being reflected in agency data bases. Especially with frequent movement of agency staff, this leads to confusion and incomplete implementation of the project decision.

Objective: Within five years, the GMUG will develop a recreational/resource use capacity model (e.g., Limits of Acceptable Change) for at least two high-use or fragile recreational areas[89] in partnership with stakeholders. Within ten years, the GMUG will develop a recreational/resource use capacity model (e.g., Limits of Acceptable Change) for at least four high-use or fragile recreational areas in partnership with stakeholders.[90] Rationale: Popular recreation areas can be damaged by too much use or use that is not managed to minimize damage. Agencies have developed recreation and resource use capacity models to address impacts of public use and to preserve the environmental setting and resources for future recreational use.[91]

Standard: Mountain bikes and other mechanical vehicles can only travel on roads and trails identified for their use. Rationale: See above.

Standard: All area and trail designations made through implementation-level travel planning will be located to minimize resource impacts and conflicts with other recreational uses. Rationale: This standard should apply to all trail planning. Further, while this is required in the context of off-road vehicles and over-snow vehicles by Executive Orders 11644 and 11989 and 36 C.F.R. § 212.55(b), we find that travel management decisions often do not reference or comply with current policy direction[92], and that the public is unaware of this mandate. Including the standard will address these historical deficiencies.

Standard: Trail densities should not exceed 1 mile/mile in sensitive habitats (e.g., ungulate winter and calving areas; wildlife corridors; riparian areas) and 2 miles/mile in other areas. Rationale: Wildlife will leave an area if it is too busy or fragmented, or wildlife will be stressed, affecting viability (Colorado State Parks 1997 at 8; Gaines et al 2002).

Guideline: Over-snow vehicle use is only allowed when a minimum snow depth of at least 18 inches for cross-country travel and 12 inches for travel on groomed trails or roads. Rationale: The Forest Service's Best Management Practices (BMP) for water quality management call for forests to institute minimum snow depths, stating that forests should: "Specify the minimum

[89] Note that it may make sense to develop a capacity model for a backcountry area to maintain the backcountry character.
[90] Note that low use areas may also require the implementation of a resource capacity model in order to maintain the social and ecological characteristics that define the setting.
[91] For an example of how the Daniel Boone National Forest is implementing the Limits of Acceptable Change Model, go to https://www.fs.usda.gov/detail/dbnf/home/?cid=stelprdb5346360.
[92] *See generally* The Wilderness Society. 2016. Achieving Compliance with the Executive Order "Minimization Criteria" for Off-Road Vehicle Use on Federal Public Lands: Background, Case Studies, and Recommendations. (Attached as Exhibit 6).

snow depth for each type or class of over-snow vehicle to protect underlying resources as part of any restrictions or prohibitions on over-snow use."[93] The planning rule requires that plans include components to implement these BMPs.[94] More generally, the scientific literature agrees that a minimum snow depth is important for protecting soil, vegetation, and subnivian wildlife (Switalski 2016 at 10-11). The best available science shows that minimum snow depths should be at least 18 inches for cross-country travel and 12 inches for travel on groomed trails or roads (Winter Wildlands Alliance 2015 at 14; Switalski 2016 at 10-11).

Guideline: Where camping is diminishing scenic character or damaging vegetation and soils, only allow dispersed camping either in dispersed developed campsites or by parking within a car length of the road and walking to a dispersed site. Rationale: Along popular roads and rivers, dispersed camping can result in widespread damage to riparian areas, soils, vegetation, or scenery. When it does, it makes sense to develop dispersed campsites and restrict the public from camping outside of them. Multiple forests and the BLM use these approaches to continue to allow dispersed camping while controlling impacts.

Infrastructure

Objective: Every five years, complete an assessment of the condition and use of current recreation infrastructure and maintenance backlog and update management strategies accordingly.

### B. Integrating Recreation Plan Direction with Other Plan Direction

The planning rule establishes that plans guide national forest management so that they are ecologically sustainable and contribute to social and economic sustainability.[95] Hence, it is necessary to crosscheck draft desired recreational settings and other recreation plan components with area allocations and plan components designed to promote ecological sustainability. Where there is conflict, the recreation plan components should be modified. A similar process should occur to crosscheck the draft direction for sustainable recreation with draft direction related to programs with potentially incompatible or conflicting activities such as mineral and energy development and timber activities. Where conflicts exist, the GMUG needs to resolve them using the planning rule direction to achieve ecological sustainability, and the distinctive role and contribution as guideposts. It should not be presumed that energy development or timber harvest are dominant uses of the forest, and therefore can be implemented even if it diminishes recreational settings or scenic integrity.

### C. Partnerships

[93] USFS 2012. *National Best Management Practices for Water Quality Management on National Forest System Lands. Volume 1: National Core BMP Technical Guide.* Rec. 7 –Over-Snow Vehicle Use. Available at http://www.fs.fed.us/biology/resources/pubs/watershed/FS_National_Core_BMPs_April2012.pdf

[94] 36 C.F.R. § 219.8(a)(4).

[95] 36 C.F.R. § 219.1(c).

Funding and support for stewardship of recreation infrastructure can be leveraged through partnerships with public and private entities and we encourage the Forest Service to assess current partnerships with agencies, user groups, local volunteers, service organizations, 21st Century Conservation Corps programs, permit holders, and outdoor industry companies. The 2016 National Forest System Trails Stewardship Act (https://www.congress.gov/bill/114th-congress/house-bill/845) encourages the U.S. Forest Service to "significantly increase the role of volunteers and partners in trail maintenance." A mapping exercise of existing and potential partnerships will help the forest identify gaps where certain geographic areas may benefit from additional partnership and volunteer support while other areas may be overwhelmed by the number of partner groups engaged on the forest. In both cases, the forest should consider the need for a Volunteer/Partnership coordinator position to assist agency staff in managing these relationships, administering agreements, and leveraging funding to support stewardship work. This model has been successfully demonstrated on both the Rio Grande and San Isabel National Forests in Colorado. The forest should outline a pro-active plan to address partnership and volunteer opportunities to aid in stewardship efforts within Recreation Focus Areas, Recreation Places, and ROS regions.

**D. Equitable Access**

National forests are public lands owned by all Americans. However, historically they have not been enjoyed equitably by all Americans and the benefits derived from them have not flowed equitably to all Americans (e.g., Chavez et al 2008). Beyond fairness, this inequity has long-term implications for public lands relative to their relevance, funding, and stewardship. Nationally, non-Hispanic Whites tend to dominate participation in outdoor recreation. People who are young to middle aged and had college educations and higher incomes also tend to be more likely to participate in most activity groups. The demographic groups consistently less likely to participate are African-Americans, people 65 or older, and people with less education and lower incomes. Females, Hispanics, and Asians are less likely to participate in some activities, but the pattern varies across activities (USDA 2012 at 154).

The demographics in the ten county GMUG region can be broken down by race and ethnicity. By race, the vast majority are white – about 74%. By ethnicity, 17% of the population is Hispanic although in certain counties this percentage is quite a bit higher (for instance, Saguache is 38% Hispanic, Garfield is 28%, and Montrose is 21%). Montrose County is identified as environmental justice populations for low-income and Garfield and Saguache counties are identified for their Hispanic or Latino populations.[96] In contrast to the demographics in the ten-county region, outdoor recreation participation on the GMUG is overwhelmingly white accounting for 98% of the visits in 2014 (the last year that the NVUM survey was done). Hispanic/Latinos accounted for 3.3 percent of total visits, while participation by other minorities was less than 1%.[97]

[96] GMUG Assessment Report REVISED DRAFT 2.-0 Forest Assessments: Benefits to People: Multiple Uses, Ecosystem Services, and Socioeconomic Sustainability at 16.
[97] *Ibid.*

The GMUG Assessment Report Chapter on Recreation[98] explains that minority and low-income participation in outdoor recreation lags behind participation by Caucasians and economically more secure populations. Economic disparities, perceived discrimination, cultural factors, and lack of exposure are top reasons for this in the GMUG region.[99] Forest Service research on diversity in outdoor recreation in the Pacific Northwest concurs with these conclusions (Chavez et al 2008, chapter 11). Specific constraints leading to this inequity generally cited in the literature include: Lack of role models, lack of information (e.g., where to go, how to go, what public facilities are available), lack of multi-lingual information off and on site, difficulty getting to outdoor recreation sites, cost, lack of outdoor knowledge, fear amongst immigrants of visiting new places, discrimination, and cultural stereotypes (Johnson et al 1998; Tierney et al 1998; USDA 2012; Roberts et al 2009; Outdoor Industry Association 2016).

Knowing the constraints (especially understanding constraints specific to the GMUG region) helps guide how to reduce the barriers to equitable participation. We fully encourage as part of the planning process the GMUG to ask minority and low-income communities within the region about their participation and constraints and specifically what actions on the part of the Forest Service and partners would help reduce them. See Forest Service Region 5 Latino Awareness & Engagement Guidebook (USDA 2013) and PSW-GTR-222 on serving culturally diverse audiences in California National Forests (USDA 2009) for ideas on communication and outreach strategies within planning processes.

Recent research tells us that Hispanic (and generally other minority) populations would generally be more likely to recreate on public lands if there were more front-country, close-to-home recreation opportunities – in particular, more campgrounds and shorter family-friendly hikes. Safe and clean facilities are important, and facilities where extended families can get together (e.g., pavilions, gazebos, larger camping sites) (Chavez et al 2008). Also, outdoor recreational opportunities that offer educational elements such as multi-lingual brochures on the environment, history, etc. are desired (Chavez et al 2008). Further, underrepresented populations (more broadly this includes minorities, youth, low-income, and women) are more likely to engage in and reap the benefits of outdoor recreation when they know how to participate, have mentors who will help them learn about places and skills, and feel comfortable and safe.

Strategies to reduce barriers to participation include:

- Providing information in multiple languages and through international symbols (e.g., for restroom, hiking trails, picnic area);
- Partnering with schools to disseminate information. Non-English speaking households often get information through their children, so working with schools to send information about outdoor recreational opportunities (especially community-based activities and “free days”) home to parents can help address the information gap;
- Partnering with schools, outdoor education providers, and possibly other land management agencies in the region to offer outdoor/ environmental education in the classroom and through field trips;

[98] Revised Draft March 2018
[99] *Id.* at 63-64.

- Making partnerships with community leaders/organizations that provide services to minorities or low-income groups to: 1) Organize events or outings to "introduce" accessible places and opportunities for recreation[100]; 2) engage mentors; and 3) disseminate information. Examples of community groups are farm workers associations, local health clinics, community centers, small businesses.
- Providing bus parking at specific destinations that would accommodate group events and school events;
- Planning for possible future transit that would provide access to co-located trailheads and facilities;
- Develop interpretive materials that highlight the outdoor achievements of people of color (e.g., famous mountaineers; outdoor business leaders);
- Putting together a calendar of local recreation events on federal lands in multiple languages; and
- Conducting outreach at events attended by target communities (markets, public service announcements on Latino radio).

The revised plan should reflect these strategies in plan components. Desired conditions should describe in measurable terms conditions for more equitable participation. Examples (not an exhaustive list) include:

> Desired condition: Visitation demographics reflect those of the GMUG region and Colorado. People of all backgrounds, ethnicities, and races feel comfortable, safe, informed and welcome on GMUG lands.
>
> Desired condition: The GMUG staff/volunteers reflect more closely the demographics of the surrounding region and Colorado.
>
> Desired condition: Residents in the region and visitors to the forest can readily find and understand information about recreational opportunities in the GMUG, and can readily access family friendly hikes, campgrounds, picnic facilities and other opportunities that are clean, safe, multilingual, and welcoming. Community-based events are organized to introduce residents who are less likely to visit public lands to the GMUG and other open spaces.
>
> Desired condition: Outdoor education organizations and schools are able to provide bone fide educational programming on the GMUG that teaches participants about natural resources, public lands, outdoor recreational skills, and stewardship.

[100] For example, Saguraro National Park in Tucson, AZ created a community outreach plan engaging diverse community members. Partnering with the University of Arizona and utilizing an outreach committee (including Hispanic committee members), the park engaged the Hispanic community by conducting a study of the Hispanic history of the park and hosting an annual fiesta celebrating the history and culture of the park and the local community. The fiesta attracted the local community and other Hispanics through traditional music and dancing, piñatas, and presentations. See http://www.nps.gov/civic/resources/Beyond%20Outreach%20Handbook.pdf.

The revised plan should include specific objectives related to outreach, partnerships, changes in the built environment, and communication. For example, the plan should include an objective to establish a partnership with schools and outdoor education NGOs to provide outdoor learning opportunities on the GMUG to school aged children and to distribute information about the GMUG through schools. The GMUG should consider establishing specific places where schools with partnership agreement in place instead of special use permits. The areas should have appropriate infrastructure and bus parking.

The GMUG should consider including suitability for family friendly, close-to-communities recreational opportunities and related facilities including parking lots or future transit stops (possibly attached to specific ROS settings), and a guideline that all outreach, educational, and informational materials for visitors are offered in multiple languages and international symbols are used on signs.

Making outdoor recreation participation more equitable will take a systemic shift in management priorities and resources. The GMUG revised plan needs to recognize this reality and reflect it in plan direction. This will require elevating functions (and associated resources) such as community outreach, education, interpretation, and facilities that are integral to the strategies listed above and reducing commitments in other program areas (presuming the GMUG will not be anticipating increased funding). We look forward to working with the GMUG staff to further refine these ideas through the duration of the planning process and beyond.

### C. Monitoring

The revised plan must include a monitoring plan. Apropos to sustainable recreation, the monitoring plan must monitor the condition and trend of the unit's ROS settings. In addition, the monitoring plan should monitor achievement of objectives, the status of visitor use, and visitor satisfaction.[101] The GMUG should also monitor specific resources that are impacted by recreation. For instance, it likely makes sense to monitor ground disturbance in riparian zones used for dispersed camping or along popular drives where dispersed camping is prevalent. Also, the GMUG should monitor snow cover and distribution (which will likely be shifting with changing climate) to indicate whether changes to winter recreation management and settings are warranted (e.g., find additional areas unsuitable for over snow vehicles because of insufficient snow cover, modify seasons of use, modify location of winter trailheads and staging areas). The GMUG should also monitor the condition of and trends affecting recreational infrastructure. Finally, as part of monitoring visitor use, the GMUG should monitor the demographics of the visitors, the style of visitation by demographic, and the satisfaction by demographics. We also recommend that the GMUG consider periodically conducting a random survey of residents within 75 miles of the GMUG to discern if, why, and how they visit the GMUG. The purpose of this type of survey is to learn about people who are displaced (no longer recreation because of unmet needs or desires) or disenfranchised (unable to recreate due to expense, lack of time, skills or transportation, etc.). The GMUG can explore whether local municipalities or Colorado Parks and Wildlife would share the expense of this effort (e.g., some counties conduct general resident surveys onto which questions can be added).

[101] 36 C.F.R. § 219.12(a)(1)(5)(v).

The forest should also identify capacity and or funding needed to complete recreation monitoring. Any sort of adaptive management direction will rely on pro-active monitoring but the agency consistently de-prioritizes and under-funds monitoring efforts. Developing strategic partnerships for monitoring is essential for assessing and directing forest plan implementation and downstream project-level decision making. If agency resources cannot adequately cover these costs, the GMUG should strive to identify partner groups, volunteers and outside funding sources to complete this work.

***Recommendations: In the plan revision and plan revision process, the GMUG should:***

- ***Create a sustainable recreation framework in the revised plan composed of eight distinct elements: distinctive roles and contributions, recreational regions, sustainable settings, scenery management, iconic recreational places, suitability, access and infrastructure, and programmatic plan components.***
- ***Crosscheck the draft plan components and area allocations with plan direction necessary for ecological integrity. Where there is conflict, the recreation plan components should be modified. The GMUG should similarly crosscheck the draft direction for sustainable recreation with draft direction related to programs with potentially incompatible or conflicting activities such as mineral and energy development and timber activities. Where conflicts exist, the GMUG needs to resolve them using the planning rule direction to achieve ecological sustainability, and the distinctive role and contribution as guideposts.***
- ***Identify specific barriers to equitable participation in outdoor recreation and design specific strategies and plan components to address the barriers; be intentional about asking under-served populations about barriers and solutions during the planning process; and make a commitment in the forest plan to practice more equitable participation in outdoor recreation and resultant benefits in the GMUG region.***
- ***Strategically evaluate partnerships to leverage resources and help connect people to nature.***
- ***Monitor the condition and trend of the unit's ROS settings, achievement of objectives, the status of visitor use, visitor satisfaction, specific resources that are impacted by recreation, snow cover and distribution, the condition of and trends affecting recreational infrastructure, the demographics of the visitors, the style of visitation by demographic, and the satisfaction by demographics.***
- ***Periodically conducting a random survey of residents within 75 miles of the GMUG to discern if, why, and how they visit the GMUG, possibly in coordination with the state or municipalities.***

## VI. Restoration, hazardous fuels, and timber harvest

Vegetation management on the GMUG, which includes timber harvest and prescribed burning, can be implemented to produce commercial timber and to achieve other management objectives – for example, reducing hazardous fuels, restoring open forest structure where logging and fire exclusion have resulted in tree encroachment, and re-introducing natural fire.[102] Timber production can only occur on lands found to be suitable for such, while vegetation management for other purposes can occur where authorized in the plan. For all tree cutting, whether for commercial production or other

[102] 36 C.F.R. § 219.11

management purposes, the GMUG must enforce specific limitations designed to prevent irreversible and undue damage to the forested environment.[103]

The scoping notice suggests that the plan will create one large general forest matrix management area where a variety of vegetation management activities can occur.[104] These could include commercial timber production, ecological restoration, salvage logging, and hazardous fuels reduction. While we understand the logic of creating a general forest management area, it gives the Forest Service significant discretion around where, when, why, and how it will conduct logging projects without benefit of priority setting and tracking. Logging is controversial, and while there likely is a zone of agreement around limited logging in dry systems for ecological restoration and logging to reduce fuels directly adjacent to communities and facilities, there is not widespread agreement around backcountry logging, salvage, and green tree removal. Hence, establishing a large management area without attempting to focus timber activities to the zone of agreement runs the risk of fostering distrust and squanders an opportunity to prioritize management activities that enjoy broad support.

We therefore recommend that the GMUG in the plan clearly distinguish ecological restoration and hazardous fuels in the plan, providing specific direction for each on where and how they can be conducted. Specific to ecological restoration, the plan should identify the vegetation systems that truly need active ecological restoration – i.e., places within ecosystems that are outside the natural range of variability and not likely to recover without intervention (e.g., dry forest where fire exclusion has caused unnatural shifts in understory composition[105]; riparian areas overtaken by tamarisk). Plan direction for these categories of lands and waters should include: desired future conditions based on best available scientific understanding of the natural range of variability of the system and recovery dynamics; a standard that requires the development of an ecological restoration plan (similar to a watershed restoration action plan required by the Watershed Condition Framework) that clearly articulates outcomes, essential projects, monitoring, and adaptive learning steps; a guideline that specifies that ecological restoration projects will address the array of restoration needs within the project considering riparian and watershed conditions, terrestrial conditions, infrastructure, and the use of natural and reintroduced fire; and a suitability determination of the places suitable for mechanical ecological restoration activities based on ecological, legal and operational (slopes are < 35%, soils are not highly erodible) criteria. Once the essential projects identified in the ecological restoration plan are completed, the presumption is that the ecosystem is restored and will not need additional mechanical treatments.

For hazardous fuels projects, the GMUG should identify those lands where vegetation conditions may threaten critical infrastructure and communities and prioritize those places for treatment. Plan direction for hazardous fuels projects should include a suitability determination for places suitable for mechanical hazardous fuels reduction activities. Suitable lands include the Wildland Urban Interface, lands adjacent to utilities (e.g., transmission lines, cell phone towers, municipal water supply structures), lands directly

[103] 36 C. F. R 219.11(d)

[104] Although the scoping notice as structured may result in authorization of vegetation (non-commercial) management in other management areas.

[105][105] *e.g., see* Reynolds et al 2013 *and* Addington et al 2018.

adjacent to campgrounds and popular recreation sites, and lands within 100 feet of a maintenance level (ML) 3-5 road that transects areas of high tree mortality. As suggested in section II of this letter, the GMUG should consider establishing a management area for the Wildland Urban Interface with specific plan direction for managing this unique forest zone.

We conducted a simple GIS exercise to identify lands that may be suitable for mechanical vegetation management for ecological restoration purposes. We found approximately 40,395 acres that are potentially suitable for mechanical ecological restoration. We did a similar exercise to identify areas potentially suitable for hazardous fuels reduction and found approximately 106,519 acres that are potentially suitable for mechanical hazardous fuels reduction activities.[106] See Appendix 3. (Note that prescribed burning to reduce fuels and prescribed burning to restore systems may be appropriate outside of these zones.) Dividing the total potentially available acres for mechanical ecological restoration activities by 15 years (the maximum term for a forest plan[107]), we find that the GMUG could likely conduct vegetation management activities for ecological restoration purposes on 2,693 acres per year. Applying timber yield figures derived from restoration activities conducted through the Uncompahgre CFLRP[108] we calculate that these acres could yield over the life of the plan about 226 million board feet or 12,600 CCF per year. Applying the same approach to potentially suitable acres for mechanical hazardous fuel activities, we find that the GMUG could conduct vegetation management activities on about 7,100 acres per year that would yield about 33,000 CCF per year.[109]

The environmental impact statement should include at least one alternative that uses this approach – that is, distinguishes areas where mechanical treatments for ecological restoration and hazardous fuels is appropriate and provides appropriate plan components – including suitability determinations similar to those that we did -- for both.[110] NEPA requires the Forest Service to analyze a range of reasonable alternatives. If the GMUG deems this approach unreasonable, it must explain in the environmental impact statement why it reached this conclusion, based on best available science. The environmental impact statement should also disclose pre-settlement vegetation conditions and trends, areas on the forest that are not within the natural range of variability for pre-settlement conditions, and the areas on the forest where mechanical vegetation treatments can reasonably be conducted given current physical constraints It should also disclose the location/management direction of community fire protection plans within the GMUG region, and the location of facilities (recreation, utility, water) on the forest where fuel build-up is a concern. It should provide criteria for hazardous fuel reduction zones and an accompanying map and identify areas within the zones that are priorities for mechanical treatments and/or prescribed burning. Finally, the environmental impact statement should disclose the annual

[106] We also ran this analysis not excluding areas with steeper slopes. This revised analysis yielded 170,941 acres potentially suitable for mechanical hazardous fuel mitigation activities.

[107] 16 U.S. Code § 1604(f)(5)

[108] The annual reports of the Uncompahgre CFLRP show that from 2012 to 2017 the CFLRP's restoration projects yielded about 4.67 CCF per acre, or about 5,600 board feet per acre.

[109] We presumed that hazardous fuels reduction activities would have similar biomass yield to restoration activities.

[110] We note that the assessment report chapter on timber did not provide this important information.

timber yield that could result from conducting hazardous fuel reduction operations and bona fide ecological restoration activities and compare that yield to current timber yields.

The plan is required to provide a list of proposed and possible actions including the "planned timber sale program; timber harvest levels; and the proportion of probable methods of forest vegetation management practices expected to be used."[111] We request that the GMUG prioritize the list of actions and provide a rationale for each project, as well as identify which ones are for ecological restoration, hazardous fuels reduction, and for commercial timber production.

Lastly, we incorporate by reference and endorse scoping comments submitted by Rocky Smith et al on May 24th, 2018 that, among other things, provides recommended criteria for the timber suitability analysis. Instead of repeating those recommendations here, we simply refer you to that letter.

**Recommendations: In order to prioritize vegetation management projects on areas with broad-based support, we recommend that the GMUG identify places where mechanical treatments for ecological restoration and hazardous fuels are suitable, and provide appropriate plan components to guide both types of vegetation management activities. For the former, in addition to the aforementioned suitability determination, plan direction should include: desired future conditions based on best available scientific understanding of the natural range of variability of the system and recovery dynamics; a standard that requires the development of an ecological restoration plan (similar to a watershed restoration action plan required by the Watershed Condition Framework) that clearly articulates outcomes, essential projects, monitoring, and adaptive learning steps; and a guideline that specifies that ecological restoration projects will address the array of restoration needs within the project considering riparian and watershed conditions, terrestrial conditions, infrastructure, and the use of natural and reintroduced fire. The plan should provide a list of prioritized ecological restoration and hazardous fuels reduction projects and explain the rationale for each project. The GMUG should determine timber suitability using the criteria offered in the May 24, 2018 letter submitted by Rocky Smith et al.**

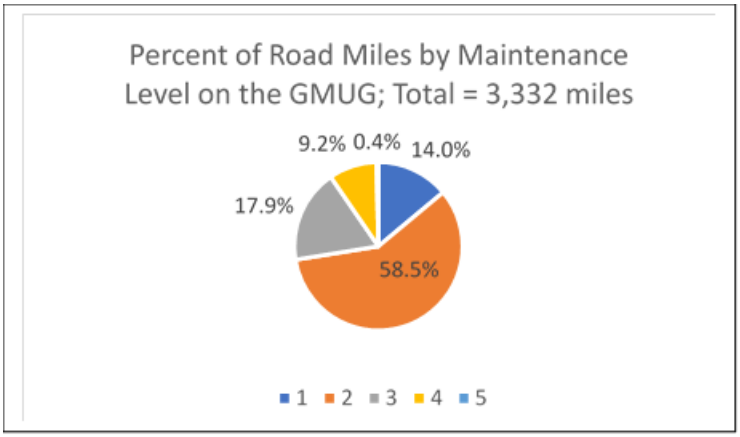
## VII. Transportation

Roads and trails across the forest are important for the array of forest management activities and programs and to enable recreational activities enjoyed by the public. Local businesses and communities benefit from visitors who want to use the GMUG because they can safely access and experience the GMUG on NFS roads and trails. Transportation infrastructure contributes to ecological sustainability when it is properly designed/located, integrated within the landscape, and well maintained and managed. However, when it is not, it can seriously diminish the integrity of ecosystems, species habitat and diversity, water quality, and scenery. Further, under-maintained infrastructure costs relatively more each year to keep open and leads to unsafe conditions. Climate change, which likely will bring more severe storms to the GMUG, will threaten infrastructure thought stable under previous hydrologic

[111] 36 C. F. R. § 219.7(f)(1)(iv)

regimes; either infrastructure will need to be re-designed to accommodate more severe storms or it will deteriorate and collapse.

The Forest Service – including the GMUG[112] – has an unsustainable, deteriorating, and sprawled transportation system. The GMUG's road system is 3,332 miles in length. Almost 60% of the road miles are high clearance that are not passable using a car and 14% are closed to public use. About 27% are passable by a car and are the primary routes used to access recreational destinations. Twenty-seven percent of the road miles are within 300 feet of a stream, and 17% are within 100 feet of a stream; there are a total of 10,779 road and trail stream crossings in the plan area. Roads that are proximal to streams are particularly vulnerable to flood damage and will likely become increasingly so with climate change.[113] They also threaten water quality and channel/riparian integrity by accelerating input of sediment into the stream or constraining channel migration/formation.[114]




Forest Service policy direction for managing roads in large part stems from Subpart A of the Travel Management Rule[115] and the Planning Rule. Subpart A was promulgated to address the Forest Service's unsustainable and deteriorating road system. It requires every forest to conduct "a science-based roads analysis," generally referred to as a "travel analysis report" or "TAR."[116] Based on that analysis, forests must "identify the minimum road system needed for safe and efficient travel and for administration, utilization, and protection of National Forest System lands," as well as roads "that are no longer needed to meet forest resource management objectives and that,

[112] The final assessment report on infrastructure acknowledges this at 1: "Key issues related to infrastructure within the plan area are chronic underfunding leading to under-maintained infrastructure such as buildings and roads, infrastructure resiliency to extreme weather events, decay of roads and damage to adjacent resources due to lack of maintenance and resilience to extreme weather events." Revised draft March 2018.
[113] *Ibid* at 10-11.
[114] *Ibid* at 10. ("Proximity to streams and stream intersections also increases the potential for infrastructure to affect water quality and quantity, and to cause damage downstream."). *Also see* Appendix 2 at 3-4.
[115] 36 C. F. R. 212 Subpart A
[116] 36 C.F.R. § 212.5(b)(1); *see also* Memorandum from Joel Holtrop to Regional Foresters *et al.* re Travel Management, Implementation of 36 CFR, Part 212, Subpart A (Nov. 10, 2010); Memorandum from Leslie Weldon to Regional Foresters *et al.* re Travel Management, Implementation of 36 CFR, Part 212, Subpart A (Mar. 29, 2012); Memorandum from Leslie Weldon to Regional Foresters *et al.* re Travel Management Implementation (Dec. 17, 2013) (outlining expectations related to travel analysis reports).

therefore, should be decommissioned or considered for other uses, such as for trails." [117] The GMUG completed a TAR in 2015 and identified 381 miles of road that are likely not needed for future use and available for decommissioning. It also recommended that 411 miles of road be closed to public use (380 transferred to administrative use only and 131 converted to ML 1).[118] According to the TAR, 12% (455 miles) of the existing road miles pose a high environmental risk and 80% (3035 miles) pose a moderate risk, and that 95% of the high risk roads are ML2.[119]

The substantive ecological and fiscal sustainability provisions of the 2012 planning rule complement the requirements of subpart A.[120] For example, forest plans must include standards and guidelines that maintain or restore healthy aquatic and terrestrial ecosystems, watersheds, and riparian areas, and air, water, and soil quality, taking into account climate change and other stressors.[121] Plans also must implement national best management practices (BMPs) for water quality; ensure social and economic sustainability, including sustainable recreation and access and opportunities to connect people with nature; and provide for "[a]ppropriate placement and sustainable management of infrastructure."[122] Given the significant aggregate impacts of the road system on landscape connectivity, ecological integrity, water quality, species viability and diversity, and other forest resources and ecosystem services, the Forest Service cannot satisfy the rule's substantive requirements without providing integrated plan components directed at making the road system considerably more sustainable and resilient to climate change stressors. For instance, the forest simply cannot provide for the ecological integrity of riparian areas, including maintenance and restoration of their structure, function, composition, and connectivity, without standards, guidelines, and objectives to remedy the address the

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[117] 36 C.F.R. § 212.5(b) (further defining the minimum road system as that "determined to be needed [1] to meet resource and other management objectives adopted in the relevant land and resource management plan . . . , [2] to meet applicable statutory and regulatory requirements, [3] to reflect long-term funding expectations, [and 4] to ensure that the identified system minimizes adverse environmental impacts associated with road construction, reconstruction, decommissioning, and maintenance").

[118] Final Travel Analysis Report Final Grand Mesa, Uncompahgre and Gunnison National Forests, 30 Sept 2015. Available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprd3856847.pdf. At 2-3. Note that the TAR at 2 states that the GMUG has 3,794 miles of road and the Forest Assessment Report Chapter on Infrastructure at 4 states that it has 3,332 miles of road.

[119] *Id.*

[120] *See* FSH 1909.12, ch. 20, § 23.23l(2)(a). The regulatory history of subpart A makes clear that the Forest Service intended that forest plans would address subpart A compliance. In response to comments on the proposed subpart A, the Forest Service stated:

> The planning rule provides the overall framework for planning and management of the National Forest System. The road management rule and policy which are implemented through the planning process must adhere to the sustainability, collaboration, and science provisions of the planning rule. For example, under the road management policy, national forests and grasslands must complete an analysis of their existing road system *and then incorporate the analysis into their land management planning process*.

66 Fed. Reg. 3206, 3209 (Jan. 12, 2001) (emphasis added).

[121] *Id.* § 219.8(a)(1)-(3).

[122] *Id.* §§ 219.8(a)(4), 219.8(b), 219.10(a)(3).

large number of road segments that are directly adjacent to or cross streams.[123] Plan components should "reflect the extent of infrastructure that is needed to achieve the desired conditions and objectives of the plan" and "provide for a realistic desired infrastructure that is sustainable and can be managed in accord with other plan components including those for ecological sustainability."[124]

The revised plan is the logical and appropriate place to establish a framework for management of the forest road system. Plans "provide[] a framework for integrated resource management and for guiding project and activity decisionmaking."[125] Plans allow the Forest Service to comprehensively evaluate the road system in the context of other aspects of forest management, such as restoration, protection and utilization, and fiscal realities, and to integrate management direction accordingly. Plans also provide and compile regulatory direction at a forest-specific level for compliance with the Clean Water Act, Clean Air Act, Endangered Species Act, and other federal environmental laws relevant to the road system and its environmental impacts.[126] And plans allow forest managers and the public to clearly understand the management expectations around the road system and develop strategies accordingly.

With climate change anticipated to necessitate forest-wide upgrades and reconfigurations of transportation infrastructure, it is especially important that plans provide direction for identifying and achieving an environmentally and fiscally sustainable road system under future climate scenarios. The Forest Service's 2014 climate adaptation plan recognizes that the wide range of environmental and societal benefits provided by our national forests "are connected and sustained through the integrity of the ecosystems on these lands."[127] The plan highlights USDA's 2010-2015 Strategic Plan Goal 2 of "[e]nsur[ing] our national forests . . . are conserved, restored, and made more resilient to climate change, while enhancing our water resources."[128] With respect to transportation infrastructure specifically, the plan recognizes that, "[w]ith increasing heavy rain events, the extensive road system on NFS lands will require increased maintenance and/or modification of infrastructure (e.g. larger culverts or replacement of culverts with bridges)."[129] The adaptation plan points to a number of actions to address these risks. For example, the plan highlights the 2012 planning rule as a mechanism to ensure that "National Forest System . . . land management planning policy and procedures include consideration of climate change."[130] The final directives to the planning rule echo the importance of

[123] *See id.* § 219.8(a)(3); Forest Assessment Report Infrastructure chapter at 10-11 (Currently 27 percent of the miles of road in the plan area are within 300 feet of a stream, and 17 percent are within 100 feet of a stream. There are a total of 10,779 road and trail stream crossings in the plan area.")

[124] FSH 1909.12, ch. 20, § 23.23l(1)(b); *see also id.* § 23.23l(2)(a) (desired condition for roads "should describe a basic framework for an appropriately sized and sustainable transportation system that can meet [identified access and other] needs").

[125] 36 C.F.R. § 219.2(b)(1); *see also id.* § 219.15(e) (site-specific implementation projects, including travel management plans, must be consistent with plan components).

[126] *See id.* § 219.1(f) ("Plans must comply with all applicable laws and regulations . . . .").

[127] USDA Forest Service 2014.

[128] *Id.* USDA's updated FY2014-FY2018 Strategic Plan retains Goal 2.

[129] *Id.*

[130] *Id. See also* 36 C.F.R. § 219.8(a)(1)(iv) (ecosystem integrity plan components must take into account stressors including climate change, and the ability of ecosystems to adapt to change); *id.* § 219.6(b)(3) (forest assessments must "[i]dentify and evaluate existing information relevant to the plan area for . . . the ability of terrestrial and aquatic ecosystems on the plan area to adapt to change"); *id.* § 219.5(a) (planning framework designed to allow

designing plan components "to sustain functional ecosystems based on a future viewpoint" and "to adapt to the effects of climate change."[131]

### A. Need for change

The scoping notice does not explicitly call out the need to achieve an environmentally and fiscally sustainable transportation system. As stated above, the transportation system is integral to successful forest management and program implementation and connecting people to the outdoors. While we cannot discern from the TAR or the Assessment Report the transportation system maintenance backlog and annual budget shortfall for the GMUG specifically, we know that the Forest Service overall has a road maintenance backlog that exceeds $3 billion and it is growing annually. Most forests can maintain somewhere between 10% and 40% of their transportation systems and there is no reason to think the GMUG is different.[132] The Revised Assessment Report chapter on infrastructure states that chronic underfunding leading to resource damage and decay of the system is a serious issue.[133]

The Assessment Report listed three specific needs for change[134]:

- Consider updating management objectives related to annual minimum targets for road reconstruction/construction. The revised Forest plan needs to reflect current agency policy per the Travel Management Rule (36 CFR 212) to maintain a minimum road system.
- Consider plan direction relative to locating, relocating, or prioritizing the reinforcement of existing infrastructure vulnerable because of climate change. Is existing 100-year floodplain standard sufficient?
- Consider adding/updating plan direction relative to maintenance of roads and other infrastructure.

While not perhaps the overarching statement that we would have preferred, the GMUG did identify needs to change transportation system management in the revised plan that are not reflected in the scoping notice's need for change statement. We therefore recommend that the GMUG revise its need for change statement to include the following: "The GMUG's transportation system, similar to other national forests in the System, has transportation system that may not be effectively meeting the needs of the agency and the public and is fiscally unsustainable. The GMUG needs to set direction to achieve over the life of the plan an appropriately sized road system that is ecologically and fiscally sustainable."

### B. Plan components

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the Forest Service "to adapt to changing conditions, including climate change"); *id.* § 219.12(a)(5)(vi) (monitoring programs must address "[m]easurable changes on the plan area related to climate change and other stressors").

[131] FSH 1909.12, ch. 20, § 23.11.

[132] In our letter submitted on January 17, 2017 on pages 41-42, we asked that the GMUG provide fiscal information on the roads system in the Assessment Report. The GMUG did not.

[133] *See Supra* at 1.

[134] *See supra* at 15.

The plan should include plan components that move the GMUG toward an appropriately sized and sustainable transportation system that is within the fiscal capability of the unit.[135] They should be designed to ensure the ecological integrity of terrestrial and aquatic systems and species diversity, and within the ecological and fiscal constraints facilitate multiple uses of the forest.[136] They should also direct adjusting the transportation system to storm patterns and hydrographs anticipated under a changing climate.[137]

Moving towards an environmentally and fiscally sustainable road system requires:

- Removal of unneeded roads (both system and non-system) to reduce fragmentation and the long-term ecological and maintenance costs of the system. Reconnecting islands of unroaded forest lands is one of the most effective actions land managers can take to enhance forests' ability to adapt to climate change.[138] The plan should prioritize reclamation of unauthorized and unneeded roads in roadless areas (both Colorado Roadless Areas and newly inventoried areas under the Chapter 70 process), important watersheds, and other sensitive ecological and conservation areas and corridors.[139]
- Addressing road segments that are individually and aggregately impacting water quality and watersheds. The revised plan should prioritize removal of unneeded and unauthorized roads in watersheds functioning at risk or in an impaired condition, or that contain 303(d) segments impaired by sediment or temperature associated with roads. Also, the plan must implement national best management practices (BMPs) for water quality,[140] and plan components should integrate BMPs into management direction aimed at reducing the footprint and impacts of the forest road system and ensure they are effective in doing so.
- Maintenance and modification of needed roads and trails to make them more resilient to extreme weather events and other climate stressors.[141] Plan components should direct that needed roads be upgraded to standards able to withstand more severe storms and flooding by,

[135] FSH 1909.12, Ch. 20, 23.23l(2)(a) ("The plan's desired condition should describe a basic framework for an appropriately sized and sustainable transportation system that can meet these needs. ") *Also see* FSH 1909.12, Ch. 20, 23.23l(1)(b) ("When developing plan components, the Interdisciplinary Team should . . . [d]evelop plan components to reflect the extent of infrastructure that is needed to achieve the desired conditions and objectives of the plan. The plan should provide for a realistic desired infrastructure that is sustainable and can be managed in accord with other plan components including those for ecological sustainability.") *See also See* FSH 1909.12, ch. 20, § 23.23l(1)(c) (plan components for road system "must be within the fiscal capability of the planning unit and its partners").

[136] 36 C. F. R. § 219.1(c). *Also generally* 36 C. F. R. §§ 219.8-219.10.

[137] 36 C. F. R. §219.10(a)(8) (Provide for integrated resource management taking into account system drivers such as climate change). *See also* 36 C. F. R. §219.8(a) (Ensure integrity of terrestrial and aquatic systems taking into account climate change).

[138] Roads Lit. Review, Appendix 2, pp. 9-14.

[139] 36 C.F.R. § 219.8(a) (maintain or restore the ecological integrity of terrestrial and aquatic ecosystems and watersheds in the plan area, including plan components to maintain or restore structure, function, composition, and connectivity).

(i) Interdependence

[140] 36 C.F.R. § 219.8(a)(4); *see also* USDA Forest Service 2012 (National Best Management Practices for Water Quality).

[141] See Assessment Report chapter on Infrastructure at 10.

for example, replacing under-sized culverts and installing additional outflow structures and drivable dips.[142] Plan components should also prioritize decommissioning of roads that pose significant erosion hazards or are otherwise particularly vulnerable to climate change stressors, and should address barriers to fish passage.[143]

- Establishment of road density thresholds[144] for important watersheds, migratory corridors and other important wildlife habitat, and general forest matrix as high road densities are deleterious to aquatic systems and wildlife.[145] Indeed, there is a direct correlation between road density and various markers for species abundance and viability.[146] Road density thresholds should apply to all motorized routes, including closed, non-system, and temporary roads, and motorized trails.[147] Objectives to lower road densities may be necessary to achieving the ecological sustainability and species diversity requirements of the 2012 planning rule.
- Sizing commensurate with maintenance funds. A sustainable road system must also be sized and designed such that it can be adequately maintained under current fiscal limitations.[148] Inadequate road maintenance leads to a host of environmental problems. It also increases the fiscal burden of the entire system, since it is much more expensive to fix decayed roads than maintain intact ones, and it endangers and impedes access for forest visitors and users as landslides, potholes, washouts and other failures occur.

To integrate the approaches described above and satisfy the substantive mandates of the 2012 planning rule and subpart A, we recommend the following plan components and elements, which are supported by best available science, as the building blocks of a framework for sustainable management of forest roads and transportation infrastructure:

> Desired Condition: The GMUG has an appropriately sized and environmentally and fiscally sustainable transportation system that facilitates enjoyable and safe visitor experiences and forest programs. Routes are located and designed to minimize impacts to habitats, species and riparian zones. Motorized route densities in backcountry, special areas and unique landscape, riparian management zones, and important wildlife habitats and watersheds (as identified on a map) do not exceed 1 mile/square mile. Routes are also located to discourage unauthorized use, effectively provide passenger car access to major recreational destinations, and to integrate with road systems on adjacent lands. Routes are designed to fit the character of the setting and are safe to drive.

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[142] Roads Lit. Review, Appendix E, pp. 10-11; *see also* FSH 1909.12, ch. 20, § 23.23l(2)(b)(1) (plan components may include road improvement objectives for culvert replacement or road stabilization).
[143] *See* FSH 1909.12, ch. 20, § 23.2l(2)(b)(1) (plan components may include decommissioning objectives).
[144] *See* FSH 1909.12, ch. 20, § 23.23l(2)(a) (desired condition for road system may describe desired road density for different areas).
[145] Roads Lit. Review, Appendix E, pp. 6-8 & Att. 2.
[146] *Id.*; *see also* FSH 1909.12, ch. 10, § 12.13 & Ex. 01 (identifying road density as one of the "key ecosystem characteristics for composition, structure, function, and connectivity" used to assess the "status of ecosystem conditions regarding ecological integrity").
[147] Roads Lit. Review, Appendix E, Att. 2 (describing proper methodology for using road density as a metric for ecological health).
[148] *See* FSH 1909.12, ch. 20, § 23.23l(1)(c) (plan components for road system "must be within the fiscal capability of the planning unit and its partners").

Desired Condition: Routes are designed to withstand future major storm events and mitigate impacts to riparian zones and streams. Best management practices for water are in place on all system roads, monitored regularly for effectiveness, and modified as needed based on monitoring. Aquatic species can migrate up and down channels and floodplains without being obstructed by road related structures. As much as possible, floodplains are not impeded by structures so that they can effectively attenuate floods and provide connected riparian habitat.

Desired condition: The road system reflects long-term funding expectations. Unneeded roads, including system, temporary, and non-system roads, are decommissioned and reclaimed as soon as practicable to reduce environmental and fiscal costs. Reclamation efforts are prioritized in roadless and other ecologically sensitive areas to enhance ecological integrity and connectivity and to facilitate climate change adaptation.

Objective: Within 10 years, identify the minimum necessary road system across the forest.

Objective: Decommission at least 5% of roads identified as unneeded each year (do not count removal of temporary roads used for vegetation projects) prioritizing CRAs, potential wilderness areas (identified in the chapter 70 process) and sensitive habitats.

Objective: Within 15 years of plan approval, rework routes so that motorized route density thresholds are met.

Objective: Within 5 years, create a climate change transportation infrastructure plan that identifies necessary actions (upgrades, redesign, decommissioning and obliteration) for transportation infrastructure to reasonably withstand projected hydrographs.

Objective: Within 10 years ensure that all roads within at-risk and impaired watersheds with poor or fair ratings for the Watershed Condition Framework (WCF) roads and trails indicator, and within watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act have working BMPs and are designed to withstand larger storms.

Objective: Within three years the forest shall identify and update as necessary its road management objectives for each system road and trail.

Objective: Within 5 years, establish a publicly available system for tracking temporary roads that includes but is not limited to the following information: road location, purpose for road construction, the project-specific plan required below, year of road construction, and projected date by which the road will be decommissioned. Within 10 years of plan approval, all temporary roads will be reflected in the tracking system.

Objective: Over the life of the plan, all unaddressed temporary roads will be decommissioned and naturalized.

Standard: All roads, including temporary roads, will comply with applicable and identified Forest Service best management practices (BMPs) for water management. Implement BMP monitoring to evaluate BMP effectiveness and identify necessary modifications to address deficiencies.

Standard: All temporary roads will be closed and rehabilitated within two years following completion of the use of the road.

Standard: Projects will not result in a net increase in motorized route miles in riparian management zones and will reduce motorized route densities within riparian management zones beneath identified density thresholds and incorporate best management practices for water.

Standard: Projects will comply with Watershed Conservation Practices Handbook (Region 2: FSH 2509.25).

Guideline: Projects are designed to move the motorized route densities beneath the established thresholds to protect fish and wildlife and visitor experiences.

Guideline: Project-level decisions with road-related elements implement TAR recommendations and advance implementation of the minimum road system and motorized route density thresholds.

Guideline: Projects affecting stream channels will assure aquatic organism passage unless doing so would increase non-native fish encroachment on native fish habitat.

Suitability: Slopes>35% on erodible soils are unsuitable for new motorized routes. New motorized routes are not suitable for places within the Natural Processes Dominate zone. New off-road vehicle routes are not suitable in Special Areas and Unique Landscapes.

### C. Monitoring

The monitoring plan for transportation infrastructure should be designed to ensure progress towards desired conditions. We recommend the following monitoring questions/indicators:

- Percentage of passenger car roads with a safety condition rating of good.
- Percentage of unneeded road miles decommissioned and reclaimed within inventoried roadless areas or areas with identified wilderness characteristics (in FSH 1909.12, chapter 70, section 72), critical habitat, riparian management zones, or other area with recognized conservation values (e.g., conservation watersheds).

- Percentage of roads addressed in subwatersheds with a “poor” WCF roads and trails indicator, and in watersheds contributing to sediment or temperature impairment under section 303(d) of the Clean Water Act.
- Miles/percentage of roads identified as unneeded for future use that have been decommissioned.
- Miles of road improved or maintained to meet BMP guidelines.
- Percent of road system in alignment with the minimum road system (or alternatively percentage of subwatersheds with minimum road systems in place).
- Percent of subwatersheds with identified minimum road system.

**Recommendations: The environmental impact statement should include within its purpose and need statement the need to achieve an ecologically and fiscally sustainable transportation system. The forest plan should provide a set of plan components designed to achieve an ecologically and fiscally sustainable transportation system through among other things, decommissioning or repurposing unneeded roads and upgrading the necessary portions of the system. The resultant system should contribute to facilitating safe visits and priority forest programs.**

**Exhibits**

Exhibit 1: Headwaters Economics Profile Summary Report for GMUG Region

Exhibit 2: Colorado Wilderness Poll Results, 2007

Exhibit 3: Ecosystem Representation Analysis, The Wilderness Society

Exhibit 4: Memo from Chris French and Rob Harper on Conservation Watersheds

Exhibit 5: Flathead National Forest Final Plan, 2017. Plan Language on Conservation Watersheds

Exhibit 6: Achieving Compliance with the Executive Order "Minimization Criteria" for Off-Road Vehicle Use on Federal Public Lands: Background, Case Studies, and Recommendations.

**Appendices**

Appendix 1: Citizens Conservation Proposal

Appendix 2: Transportation Infrastructure and Access on National Forests and Grasslands
A Literature Review, Prepared by The Wilderness Society 2014

Appendix 3: Method for Calculating Acres Potentially Available for Mechanical Vegetation Management for Ecological Restoration and Hazardous Fuels Activities

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