June 1, 2018

Grand Mesa, Uncompahgre and Gunnison National Forests
Attn: Plan Revision Team
2250 South Main Street
Delta, CO 81416
gmugforestplan@fs.fed.us

RE: Grand Mesa, Uncompahgre, Gunnison Forest Plan Revision Scoping Comments

Dear Forest Planning Team,

On behalf of the Backcountry Snowsports Initiative (BSI) and Winter Wildlands Alliance (WWA), we are pleased to submit comments during the assessment phase of the Grand Mesa, Uncompahgre, Gunnison (GMUG) Forest Plan revision process. We appreciate the opportunity to provide public input early and often as these decisions will impact our constituents – backcountry skiers, split-boarders, cross country skiers, snowshoers and winter mountaineers.

The Backcountry Snowsports Initiative is a program within the Colorado Mountain Club's (CMC) Conservation department which advocates for human-powered winter recreation across the state. Through our network of 1,200 supporters, grassroots advocacy organizations, local snowsports clubs, corporate partners and national associates we promote access to and protection of winter landscapes that provide pristine recreation opportunities. In the past, we've worked closely with local groups on winter travel planning and land use designations on Rabbit Ears/Buffalo Pass, Wolf Creek Pass, and the White River National Forest in coordination with the Vail Pass Task Force, among others. On the GMUG, we communicate regularly with individual winter backcountry users as well as recreation groups including Silent Tracks, the San Juan Huts, and the Red Mountain Club.

CMC also works closely with Winter Wildlands Alliance, a national advocacy group, to amplify our voice on large campaigns like the new Over-Snow Vehicle travel rule released in early 2015. WWA is dedicated to promoting and preserving winter wildlands and a quality human-powered snowsports experience on public lands. WWA represents over 50,000 members and 41 grassroots partner organizations in 16 states, including the following organizations in Western Colorado: CMC, Silent Tracks, Crested Butte Nordic, High Country Conservation Advocates, and The Nature Connection. BSI and WWA supporters include both residents of the Western Slope and visitors to the GMUG who all have a strong interest in the Forest Plan revision as it pertains to management of winter landscapes and winter recreation on the Western Slope. CMC and WWA are both members of Outdoor Alliance, which is also submitting comments during this scoping period.

Social Trends & Economic Impacts of Recreation

Recreation and human-powered winter recreation in particular, are significant factors in Colorado's culture and local economies. According to the Outdoor Industry Association, outdoor recreation generates $28 billion in consumer spending in Colorado, 229,000 direct Colorado jobs, $9.7 billion in salaries, and $2 billion in state and local revenue.[1] Skiing (including backcountry skiing, splitboarding, and cross-country skiing) has long been present on the GMUG, though it has seen significant growth since the forest plan was last revised.

In 2016 nearly 16 million people participated in human-powered winter recreation and these numbers are growing rapidly.[2,3,4] In the past three years, cross country skiing had the highest participation growth rates among all winter sports.[5] During the same period backcountry skiing and split boarding participants also continued to rise.[6] Sales in uphill gear more than doubled between 2015 and 2017 while winter backcountry equipment sales increased by over 50% in 2016.[7] Looking forward, the Forest Service and USDA see backcountry skiing as a top activity in terms of growth, predicting participation increases between 55%-106% by 2060.[8,9]

At the same time, there has been a significant decrease in the popularity of snowmobiling across the nation. The International Snowmobile Manufacturers Association reports the sale of snowmobiles within the United States has dropped from 91,670 in 2006 to 58,299 in 2015, a 36% decline, while total U.S. snowmobile registrations continues to hover around 1.3 million.[10] In Colorado, snowmobile registrations with Colorado Parks and Wildlife have remained fairly stable, or showed a slight decline, to around 31,000 registrations per year. Internal USDA research predicts a similar trend into the future, with undeveloped skiing (which includes ski touring) projected as one of the top five growth activities in the next several decades while motorized snow activities will see one of the lowest rates of participation growth. The number of participants in undeveloped skiing, according to agency research, is projected to increase by 55 – 106 percent by 2060.[11]

This comparison is useful as part of the assessment is developing a need for change. While both motorized and non-motorized winter recreation are popular on the GMUG, recent trends and the USFS's own projections indicate that non-motorized use will increase substantially more over the plan period and beyond. Additionally, the population in Colorado is projected to double by

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[1] *Outdoor Industry Association, Colorado State Report*: https://outdoorindustry.org/state/colorado/
[2] Snowsports Industries of America (2015-2016) Snow Sports Market Intelligence Report.
[3] Physical Activity Council (2018) Participation Report. Available at: http://www.physicalactivitycouncil.com/pdfs/current.pdf
[4] Outdoor Foundation & Physical Activity Council. (2016) Outdoor Recreation Participation Topline Report 2016. Available at: https://outdoorindustry.org/wp-content/uploads/2017/05/2016-Topline-Report.pdf
[5] *id*
[6] Snowsports Industries of America (2017) Industry Insights Study.
[7] Snowsports Industries of America (2015-2016) Snow Sports Market Intelligence Report.
[8] Cordell, Ken H. (2010) Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. USDA Forest Service Southern Research Station. Available at: http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs150.pdf
[9] USDA Forest Service. (2016). National Visitor Use Monitoring Survey Results; National Summary Report. Available at: http://www.fs.fed.us/recreation/programs/nvum/pdf/508pdf2015_National_Summary_Report.pdf
[10] http://www.snowmobile.org/docs/isma-snowmobiling-fact-book.pdf
[11] Outdoor recreation trends and futures: a technical document supporting the Forest Service 2010 RPA Assessment. Ken Cordell. http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs150.pdf

2050[12] meaning even more pressure on public lands for recreation opportunities over the lifetime of the GMUG plan. This industry growth provides a variety of economic development opportunities for communities on the Western Slope. From guiding services and gear sales to hut rentals and dining services, there are a multitude of business opportunities associated with this growth. Winter recreation management guidelines should support this growing demographic and include proactive management strategies to ensure user conflicts are low and user experience remains high.

Opportunities and Challenges for Human Powered Recreation

The GMUG National Forests contain a plethora of winter recreation opportunities for a variety of user types and ability levels. Human-powered winter recreationists (collectively referred to in these comments as "backcountry skiers") seek abundant snow, terrain of varied aspects, elevations, and steepness, and a sense of remoteness and solitude, yet generally travel within a three to five-mile buffer of a road during day trips. Longer overnight trips – which often include a stay in a hut or yurt on the forest – allow skiers to move deeper into the backcountry. Both of these experiences are highly valued by backcountry skiers, and the GMUG offers both – especially during the spring when days are long, snowpack is generally more stable, and roads offer greater access. The Elk Range and San Juan Mountains are world-renowned for their challenging but plentiful backcountry ski terrain. The San Juan Huts system offers human-powered users an opportunity for remote access to some of Colorado's most pristine winter landscapes. Additionally, snowshoeing and cross country skiing are highly popular in many areas, including the Grand Mesa.

On some areas of the GMUG, users can still find solitude and quiet winter landscapes, but as use increases, user conflict and safety becomes an increasing concern. It is important that the forest regulate over-snow vehicle activity so that this use does not lead to conflict in areas that are important for quiet winter recreation or wildlife. Areas around Crested Butte, for example, are popular multi-use areas that require additional agency management to minimize impacts between recreationists. Although some distinct forest orders have regulated winter motorized travel (e.g. Washington Gulch), growing use, new technologies, and has resulted in continued user conflict. Of the five major drainages in the Crested Butte area, only 1 offers a non-motorized winter experience, and even that drainage (Gothic) now has motorized use for grooming fat-bike trails and increased access to the Rocky Mountain Biological Laboratory. Moreover, the Forest has not been through an adequate public process to address winter travel comprehensively and meet the requirements of the 2015 Over-Snow Vehicle (OSV) rule.

Winter ROS

During the Forest Plan revision process, we recommend that the forest identify high-priority winter recreation areas and begin to address winter travel concerns. We understand that route-by-route and area-by-area travel planning will not be conducted during the forest plan revision but we believe establishing Winter Recreation Opportunity Spectrum (ROS) settings and other forest-wide direction concerning OSV use will set the stage for winter travel planning in the future. 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 help to

[12] Colorado Water Conservation Board, *The Municipal & Industrial Water Supply and Demand Gap* http://cwcb.state.co.us/water-management/water-supply-planning/Pages/TheWaterSupplyGap.aspx

build a framework for the winter travel planning required under the 2015 Over-Snow Vehicle Rule.[13] The Flathead National Forest developed a winter ROS in its recently revised forest plan (published in 2017) and we encourage the GMUG to refer to the Flathead plan for a good example of winter ROS settings and prescriptions.[14] The winter ROS 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 sensitive wildlife areas such as lynx habitat or ungulate winter range as well as to high-value non-motorized recreation areas. 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 or reduce disturbance during this critical time of year). Additionally, like summer ROS settings, winter ROS in the revised plan should reflect desired future conditions rather than simply be a reflection of current management. The revised forest plan should include an objective to initiate winter travel planning within 1 year of completing the forest plan revision in order to bring OSV management in line with the desired conditions reflected in the winter ROS. The revised plan should also include a guideline stating 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.

Suitability

Suitability conveys which lands within the plan area are suitable and/or not suitable for various uses or activities. It is important that the GMUG articulate carefully which uses and activities are not compatible with specific recreational settings or in specific management areas, geographic areas, or recreational places to sustain recreation and associated benefits. 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), 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.[15] Specific to winter settings, steep slopes and windswept ridgelines, low elevation areas without adequate snowpack[16], areas with dense tree cover, and important habitat for wintering fish and wildlife should all be found unsuitable for OSV use. The revised forest plan should include an objective to initiate site-specific winter travel planning within 1 year of completing the forest plan revision in order to bring OSV management in line with the suitability determinations made during forest plan revision (including but not limited to closing unsuitable areas and achieving the winter ROS). The final plan should include clarifying language that OSVs will not necessarily be permitted in all suitable areas.[17] 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.[18]

[13] 36 C.F.R. part 212.
[14] Flathead National Forest Land Management Plan. December 2017. Pages 58-63.
[15] FSH 1909.12, chapter 20, section 23.23a(2)(d)
[16] 36 CFR part 212: OSV planning is required on NFS lands where snowfall is adequate for OSV use to occur
[17] *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").
[18] Executive Orders 11644 and 11989

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)[19] 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. We suggest that the GMUG refer to the findings in this study to help guide OSV suitability determinations.

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 ensure that high quality outdoor recreation experiences on the forests are achieved over the life of the plan. Below is an example of plan components specific to winter recreation programming.

Table 1. Example of possible approach to designing and displaying recreation program specific plan components in the revised GMUG plan.

Winter Travel Management	
Desired Condition	The National Forest provides high quality opportunities for both motorized and non-motorized winter recreation across a variety of ROS settings.
Objective	Initiate site-specific winter travel planning within 1 year of forest plan revision.
Suitability	Motorized use, including over-snow vehicle use, is not suitable within primitive and semi-primitive non-motorized winter ROS classifications.
Standard	• High value non-motorized winter recreation areas shall not be designated for OSV use. • Ungulate winter range shall not be designated for cross-country OSV use

[19] Olson et al. 2017. Modeling large-scale winter recreation terrain selection with implications for recreation management and wildlife. *Applied Geography*: 86, 66-91. https://doi.org/10.1016/j.apgeog.2017.06.023

	• There shall be no net gain in groomed or designated OSV routes within lynx habitat.
Guideline	• Designated OSV area boundaries should follow ridgelines, roads, or other obvious natural or physical features on the landscape. • 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.

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 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."[20] The planning rule requires that plans include components to implement these BMPs.[21] More generally, the scientific literature agrees that a minimum snow depth is important for protecting soil, vegetation, and subnivian wildlife.[22] 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.[23] Instituting this direction as a programmatic plan component at the forest planning level is appropriate because it guides OSV management across the forest and is not a site-specific decision. This type of plan direction, along with a winter ROS, in the revised forest plan will create a solid foundation for future winter travel planning. Likewise, setting an objective to initiate winter travel planning within one year of forest plan revision will help the GMUG communicate and commit to the public that winter travel management planning is forthcoming. 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

We also suggest the revised forest plan contain the following additional plan components related to dispersed recreation and travel management (not specific to winter):

- Desired Condition: Management of motorized recreation minimizes conflicts between uses; damage to soil, watershed, vegetation, and other national forest resources; and harassment of wildlife and disruption of wildlife habitat.
- Standard: All motorized area and trail designations made through implementation-level travel planning will be located to minimize resource impacts and conflicts with other recreational uses.

[20] 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
[21] 36 C.F.R. § 219.8(a)(4).
[22] Tahoe National Forest Over-Snow Vehicle Use Designation Draft Environmental Impact Statement, available at https://www.fs.usda.gov/project/?project=45914
[23] Switalski 2016 Journal of Conservation Planning Vol 12 (2016) 8 – 12, at 10-11. Available at http://www.willallen.com/JCP/JCP_2016_V12_4_Switalski_4.pdf

While these actions are required 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[24], and that the public is unaware of this mandate. Including these plan components will address these historical deficiencies.

Monitoring

Within the larger monitoring plan, 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).

Framework for Sustainable Recreation

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."[25] The Rule also emphasizes the importance of connecting people to nature.[26] 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 provide a recreation management framework that addresses and integrates these topics.

We recommend that the GMUG create a sustainable recreation management framework in the revised plan that contains the following eight elements: Distinctive Roles and Contributions, Recreational Regions, Desired Recreation Opportunity Spectrum Settings, Scenery Mangaement, Iconic Recreation Places, Suitability, Access and Infrastructure, and Programmatic Plan Components. We have outlined our vision for what this framework should include in Attachment 1. Many of the ideas and comments we have offered in this letter are also reflected in the framework for sustainable recreation management that we describe in this attachment.

Conclusion

We've assembled some general guidelines and recommendations for winter recreation planning based on other Forest travel plans and encourage you to keep these in mind throughout the planning process:

- Engage all user groups in stakeholder meetings throughout the process
- Gather data on current winter backcountry use to better inform planning[27]
- Consider "snow" as a resource to be managed for a variety of uses (recreation, habitat, view sheds, soundscapes, climate, economic value, etc.) just as you would consider soil or water or timber.

[24] *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.
[25] 36 C.F.R. § 219.19
[26] 36 C.F.R. § 219.10(a)(3) and (4) and (10)
[27] BSI, in partnership with Outdoor Alliance, has and continues to collect winter recreation data from users across the state in order to help public land management agencies understand where users are traveling, where conflicts are occurring, and which areas are appropriate for OSV closures or restrictions. We will provide data to the GMUG periodically throughout the plan revision process.

- Create non-motorized buffer zones around huts and yurts to preserve quiet, private experiences
- Create non-motorized buffer zones around Wilderness areas to reduce accidental boundary crossings by OSVs and preserve quiet experiences for recreationists and wildlife
- Set a minimum snow depth for OSV use at 18" to protect underlying soils and vegetation
- Use easily-identifiable geographic boundaries (ridges, cliff bands, roads) as borders between open/closed/restricted areas – reduces confusion and unauthorized use
- Implement seasonal OSV closures for critical wildlife habitat including lynx habitat and large ungulate winter range.

The GMUG offers a variety of winter recreation opportunities and we look forward to working with you to bring balanced management to the backcountry. We also want to emphasize our interest in collaborating with all stakeholder groups to find collaborative and proactive solutions throughout the forest. The Backcountry Snowsports Initiative and Winter Wildlands Alliance – and our partner groups and supporters – will continue to provide data, recommendations, policy expertise and outreach to our community throughout the forest plan revision and implementation process. Please keep us informed of the process and feel free to contact us at any time to discuss these comments in more detail.

Sincerely,

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For more information about the Backcountry Snowsports Initiative visit www.cmc.org/BSI

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Attachment 1

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."[1] The rule also emphasizes the importance of connecting people to nature.[2] 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 provide a recreation management framework that addresses and integrates these topics.

We recommend that the GMUG create a sustainable recreation management framework in the revised plan that contains the following eight elements. 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.[3] The role the forest plays in providing outdoor recreation is a major part of the forest's larger role and contribution. Clearly articulating the recreation-specific role and contribution of the forest clarifies the recreational attributes of the unit that are valued, important, or distinctive when compared to the broader landscape. It also serves as a unifying concept for designating recreation settings and associate plan direction and integrating desired conditions and plan components.[4] 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 mountain biking, rock climbing and whitewater paddling where unique and geographically-specific recreational resources (trails, cliffs or rapids) are highly exceptional.

(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 is also a useful scale of analysis for designing implementation level recreation management strategies. The GMUG is particularly well suited to division into recreational regions, as it is spread out and encompasses distinctly different landscapes. For these reasons we recommend that the revised plan include recreational regions based on geographic areas. We suggest these regions include the Uncompahgre Mountain Region, the Uncompahgre Plateau and Canyon Region, the Grand Mesa Region, the North

[1] 36 C.F.R. § 219.19
[2] 36 C.F.R. § 219.10(a)(3) and (4) and (10)
[3] 36 C.F.R. §. 219.7(f)(ii)
[4] CFR 219.2(b)(1); and FSH 1909.12 sec. 21.11, 21.12, and 22.

Fork Region, and the Gunnison Basin Region. Figure 1 describes the general character and distinctive role and contribution of each of these regions. Desired settings, opportunities, scenic integrity levels and actions need to be tied to regional characteristics, roles, and contributions.

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.

Figure 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, ice climbers, 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.	Provides a beautiful backdrop for scenic river canyon drives. Coveted by mountain bikers, hikers, and hunters in particular.
Grand Mesa	Largest flat-top mountain in the world. Numerous reservoirs and lakes.	Provides frontcountry high elevation access to nearby communities. Coveted by backcountry skiers, mountain bikers, hikers, snowmobilers, 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. 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. Critical link to several adjacent mountain ranges.	Coveted by sportsmen and other backcountry recreationists for easy to access beautiful 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 a sustainable recreation framework. They describe the array of settings (physical, social and managerial) where specific experiences and benefits are derived. It is important that the GMUG prescribe both summer and winter ROS settings, as recreational access and experiences on the forest change drastically between seasons. In addition, ROS settings in the revised plan should be based on the desired settings, not simply based on where other activities currently occur or may occur.

The plan must include desired conditions for sustainable recreation using mapped desired recreation opportunity spectrum classes.[5] 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. The plan must also include supplemental plan components that ensure ROS settings are achieved and sustained over the life of the plan.[6] 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, 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 also 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 Figure 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 7), 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 semi-primitive or primitive non-motorized classes in order 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 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

[5] FSM 23.23a(1)(d)
[6] FSM 23.23a(2)(a)

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.[7] 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.[8] 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.[9] 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 as well as to high-value non-motorized recreation areas. 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). Desired ROS winter settings that allow over-snow vehicle (OSV) use should be supplemented with a guideline 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 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 achieve desired scenic levels. The desired scenic levels must 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 important to include direction in the plan (via 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.

(5) Iconic Recreation Places. Iconic recreation places are areas on the forest with distinctive values, qualities, or special meaning to people and are integral to connecting people to the outdoors. Recreation places can be large or small, front-country or backcountry, and are distinct from recreational regions discussed above. Some recreation places may warrant a special designation pursuant to FSM 2370 because of their outstanding botanical, zoological, geological, cultural, scenic, or recreational

[7] *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").
[8] 36 C.F.R. part 212.
[9] Flathead National Forest Land Management Plan. December 2017. Pages 58-63. Available at https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd567979.pdf

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.[10]

In the revised plan, the GMUG should delineate recreation places on a map, and provide a narrative describing the place, management challenges and opportunities, educational opportunities, and management approach. Specific plan components should be assigned to each recreation place that address the unique management goals, opportunities, and challenges for each place. The description should address the place's special values and recreational characteristics (e.g., current opportunities, infrastructure, use demographics and trends, special uses, interpretation and education, and capacity). 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 or geographic area and ROS setting in which it is placed. Specific areas that we recommend as Recreational Places (non-inclusive list) are listed in Table 2.

Table 2. Recreational Places Candidates (non-inclusive) by Recreational Region. [please fill in!]

Region	**Recreational Places Candidates**	**Rationale**
Uncompahgre Mountains	14,000+ foot peaks: Uncompahgre, Wetterhorn, 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 14,000+ foot peaks: Castle Peak and San Luis	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. It is important that the GMUG articulate carefully which uses and activities are not compatible with specific recreational settings or in specific management areas, geographic areas, or recreational places to sustain recreation and associated benefits. Suitability determinations should address both legal suitability (e.g., motorized use and mechanized uses are 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), management areas, geographic areas, and recreational places, as well as based on operational conditions within those larger allocations.

[10] Scoping notice at 7.

The GMUG is required to determine suitability for motorized recreation (summer and winter) consistent with the desired ROS class.[11] 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 slopes, and important non-motorized recreation destinations should also be found unsuitable for motorized use. Specific to winter settings, steep slopes and windswept ridgelines, low elevation areas without adequate snowpack[12], 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.[13] 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.[14]

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.

The GMUG should also thoughtfully determine suitability for other recreation related activities and uses. For instance, we think it may be helpful for the GMUG to identify where the construction of certain types of constructed facilities are suitable (e.g., rustic signs and kiosks vs plumbed toilets and group campgrounds; dispersed vs developed campgrounds). Likewise, it may be helpful to determine where certain types of recreation uses (e.g., various forms of human-powered recreation, riding and livestock packing), and certain types of special uses (e.g., motorized tours, hunting camps) are suitable. The revised forest plans should define 'sustainable settings' for concentrated trail development that establish criteria such as trail density, level of soil disturbance, social carrying capacity, etc. within a larger Recreation Planning Framework.

(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

[11] FSH 1909.12, chapter 20, section 23.23a(2)(d)
[12] 36 CFR part 212: OSV planning is required on NFS lands where snowfall is adequate for OSV use to occur
[13] *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").
[14] Executive Orders 11644 and 11989

location of access routes and recreational facilities is key to providing high quality recreation 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 be designed to ensure that infrastructure minimizes adverse impacts to aquatic and terrestrial ecosystems and integrity[15], is appropriately sized[16], can be maintained under anticipated funding streams[17], and is designed to enhance people's connections to the land.[18] 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 and include in the plan components designed to address the gap between current infrastructure and desired infrastructure. This analysis should tier to the ROS settings in a given area in order to achieve the desired recreational experience in a sustainable manner.

(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 that high quality outdoor recreation experiences on the GMUG are achieved over the life of the plan. 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, and suitability within recreation regions (using the ROS), followed by development of standards and guidelines for each program area. Table 3 provides an example of one desired condition and supporting plan components for the Dispersed Recreation and Travel Management program.

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

Winter Travel Management	
Desired Condition	The National Forest provides high quality opportunities for both motorized and non-motorized winter recreation across a variety of ROS settings.
Objective	Initiate site-specific winter travel planning within 1 year of forest plan revision.
Suitability	Motorized use, including over-snow vehicle use, is not suitable within primitive and semi-primitive non-motorized winter ROS classifications.
Standard	High value non-motorized winter recreation areas shall not be designated for OSV use.
Guideline	Designated OSV area boundaries should follow ridgelines, roads, or other obvious natural or physical features on the landscape.

[15] 36 C. F. R. 219.8 and 219.9 requires that plan components achieve ecological sustainability.
[16] 36 C.F.R. § 218.10(a)(3)
[17] *Ibid*
[18] 36 C.F.R. § 219.8(b)(6)

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.

A. Dispersed Recreation and Travel Management:
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 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."[19] The planning rule requires that plans include components to implement these BMPs.[20] 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).

Standard: All motorized area and trail designations made through implementation-level travel planning will be located to minimize resource impacts and conflicts with other recreational uses. Rationale: While this is required 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, and that the public is unaware of this mandate. Including the standard will address these historical deficiencies.

Desired Condition: Management of motorized recreation minimizes conflicts between uses; damage to soil, watershed, vegetation, and other national forest resources; and harassment of wildlife and disruption of wildlife habitat. Rationale: see above.

Objective: Within one year, implement 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 to provide certainty around which routes are appropriate for mountain bikes. Growing popularity plus new bike technology has the potential to lead to significant ecological and social impacts if timely and proactive planning is not conducted.

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 (what

[19] 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
[20] 36 C.F.R. § 219.8(a)(4).

the Forest has termed "Recreation Focus Areas" in the scoping notice) 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.[21] 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.[22]

Guideline: Within recreation places or along other high-use roads and trails, dispersed camping will be restricted to dispersed developed campsites to protect scenic character and avoid damage to vegetation and soils. Rationale: In heavily used areas, 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 this approach to continue to allow dispersed camping while controlling impacts.

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.[23] 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. 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 have 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,

[21] 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.
[22] 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.
[23] 36 C.F.R. § 219.1(c).

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 population for low-income and Garfield and Saguache counties are identified for their Hispanic or Latino populations.[24] 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%.[25]

The GMUG Assessment Report Chapter on Recreation[26] 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.[27] 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; USDA 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) (USDA 2008). Also, outdoor recreational opportunities that offer

[24] GMUG Assessment Report REVISED DRAFT 2.-0 Forest Assessments: Benefits to People: Multiple Uses, Ecosystem Services, and Socioeconomic Sustainability at 16.
[25] *Ibid.*
[26] Revised Draft March 2018
[27] *Id.* at 63-64.

educational elements such as multi-lingual brochures on the environment, history, etc. are desired (USDA 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 (citations).

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;
- 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[28]; 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:

[28] 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.

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 field-based educational programming on the GMUG that teaches participants about natural resources, public lands, outdoor recreational skills, and stewardship.

The revised plan should include specific objectives related to outreach, partnerships, changes in the built environment, and communication. 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.

D. 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.[29] 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

[29] 36 C.F.R. § 219.12(a)(1)(5)(v).

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 recreate in an area or on the forest overall 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). The forest should also identify capacity and or funding needed to complete recreation monitoring. Any sort of adaptive management direction will rely on proactive 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 Forest should identify partner groups, volunteers and outside funding sources to complete this work.

E. Stewardship and Maintenance of Recreation Infrastructure

Recreation Infrastructure Assessment

In order to understand the resources required to maintain recreation infrastructure, the forest should complete a comprehensive condition assessment of the current recreation infrastructure and maintenance backlog. Recreation infrastructure includes trails, campgrounds, trailheads, signs and other infrastructure that facilitates both summer and winter recreation. 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.

Partnerships

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 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.

Summary 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 and practice to more equitable participation in outdoor recreation and resultant benefits in the GMUG region.
- 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.
- Complete a comprehensive condition assessment of the current recreation infrastructure and maintenance backlog and use this assessment to inform future infrastructure maintenance and development.
- Create a Volunteer/Partnership coordinator position to assist agency staff in managing partnerships, including administering agreements, and leveraging funding to support stewardship work.