



Jeff Schramm, Forest Supervisor
Ashley National Forest
355 North Vernal Avenue
Vernal, Utah 84078

Comments submitted electronically at: <https://cara.ecosystem-management.org/Public/CommentInput?Project=49606>.

February 15, 2022

RE: Comments on the Ashley National Forest - Forest Plan Revision #49606

Sageland Collaborative, formerly Wild Utah Project, is a 501(3)c non-profit conservation organization based in Salt Lake City, Utah. Our mission is to provide science-based strategies for wildlife and land conservation. For 25 years, we have applied the principles of conservation science to land and wildlife management. We bring together community science volunteers, wildlife and habitat studies, technical support, and computer mapping analysis using Geographic Information Systems (GIS) to conservation partners in our region.

We appreciate the opportunity to provide comment to the Ashley National Forest (ANF or the Forest) Plan revision.

Our comments focus on actions that impact wildlife resources, their habitats, and overlap with our existing conservation programming.

Sincerely,

Janice Gardner, Certified Wildlife Biologist®
Sageland Collaborative



Comments on the Main Body of the Draft Environmental Impact Statement (DEIS)

Comment 1.

We ask the U.S. Department of Agriculture to provide proper funding and staff capacity to properly complete the ANF Plan and Final EIS. ANF staff should be well versed in the National Environmental Policy Act, resource topics, and the Federal Government's Style Manual.

In our review, we were dismayed with the quality of the documents. For example, citations were not properly used in many places, and it was hard for readers to track where original sources of data could be found. The DEIS and appendices also contain a greater number of typos and copy edits than one would expect. As just one example of the impact of this to a public reviewer is that using inconsistent spelling of species names (e.g., Black-rosy finch, Black Rosy-Finch, Black Rosy Finch) puts a burden on the reviewer when searching for terms in the documents.

Comment 2.

In Table 3-10. Riparian Management Zone Widths should be updated as indicated below. The rationale is that streams and riparian corridors are some of the highest value habitats and provide many ecosystem services. These distances are standard in other U.S. Forest Service Land Management Plans that were recently updated.

Riparian Management Zone Type	Default Riparian Management Zone Distance From Feature
Perennial streams, natural ponds, lakes, open water wetlands, seeps, springs and reservoirs	300 feet on each side of the stream, measured from the bankfull edge of the stream
Intermittent seasonally flowing channels/waterbodies supporting riparian vegetation.	150 feet on each side of the stream, measured from the bankfull edge of the stream
Ephemeral stream channels/waterbodies, unstable or potentially unstable areas.	150 feet on each side of the stream, measured from the bankfull edge of the stream/waterbody

Comment 3.

Under the Alpine vegetation type description (page 88), please add more detail about the influence of climate change on alpine vegetation, as alpine ecosystems are often ranked as highly vulnerable to climate change. Results from the following sources should be considered.

Elsen, P. R., W. B. Monahan, and A. M. Merelender. 2020. Topography and human pressure in mountain ranges alter expected species responses to climate change. *Nature Communications* 11.

- Elsen, P., and M. Tingley. 2015. Global mountain topography and the fate of montane species under climate change. *Nature Climate Change* 1–7.
- Formica, A., E. C. Farrer, I. W. Ashton, and K. N. Suding. 2014. Shrub Expansion Over the Past 62 Years in Rocky Mountain Alpine Tundra: Possible Causes and Consequences. *Arctic, Antarctic, and Alpine Research* 46:616–631.
- Friggens, M., M. Williams, K. Bagne, and T. Wixom. 2018. Climate Change Vulnerability and Adaption in the Intermountain Region: Effects of Climate Change on Terrestrial Animals. 264–315.
- Halofsky, J. E., D. L. Peterson, S. K. Dante-Wood, L. Hoang, J. J. Ho, and L. A. Joyce. 2018. Climate Change Vulnerability and Adaptation in the Northern Rocky Mountains. General Technical Report, U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Hock, R., G. Rasul, C. Adler, B. Caceres, S. Gruber, Y. Hirabayashi, M. Jackson, A. Kaab, S. Kang, S. Kutuzov, A. Milner, U. Molau, S. Morin, B. Orlove, and H. Steltzer. n.d. High Mountain Areas. Pages 131–202 in. IPCC Special Report on the Ocean and Cryosphere in a Changing Climate.
- McKelvey, K. S., and P. C. Buotte. 2018. Effects of Climate Change on Wildlife in the Northern Rockies. *Climate Change and Rocky Mountain Ecosystems*. Springer International Publishing. <10.1007/978-3-319-56928-4_8>.
- Rice, J. R., L. A. Joyce, C. Regan, D. Winters, and R. Truex. 2018. Climate Change Vulnerability Assessment of Aquatic and Terrestrial Ecosystems in the U.S. Forest Service Rocky Mountain Region. U.S. Forest Service Rocky Mountain Research Station.
- Scharnagl, K., D. Johnson, and D. Ebert-May. 2019. Shrub expansion and alpine plant community change: 40-year record from Niwot Ridge, Colorado. *Plant Ecology & Diversity* 12:407–416.
- Seastedt, T. R., and M. F. Oldfather. 2021. Climate Change, Ecosystem Processes and Biological Diversity Responses in High Elevation Communities. *Climate* 9:1–16.
- Skiles, S. M., and T. Painter. 2017. Daily evolution in dust and black carbon content, snow grain size, and snow albedo during snowmelt, Rocky Mountains, Colorado. *Journal of Glaciology* 63:118–132.
- Rogora, M., L. Frate, M. L. Carranza, M. Freppaz, A. Stanisci, I. Bertani, R. Bottarin, A. Brambilla, R. Canullo, M. Carbognani, C. Cerrato, S. Chelli, E. Cremonese, M. Cutini, M. Di Musciano, B. Erschbamer, D. Godone, M. Iocchi, and G. Matterucci. 2018. Assessment of climate change effects on mountain ecosystems through a

cross-site analysis in the Alps and Apennines. *Science of The Total Environment* 624:1429–1442.

Verrall, B., and C. M. Pickering. 2020. Alpine vegetation in the context of climate change: A global review of past research and future directions. *Science of the Total Environment* 748.

Comment 4.

The role of grazing and browsing on conifer encroachment into vegetation communities (e.g., riparian, aspen, sagebrush) is not sufficiently covered in the DEIS. The DEIS focuses on the role of wildfire suppression on conifer encroachment but does not include the other significant causes of encroachment. The DEIS analysis and Land Management Plan cannot succeed in their management prescriptions without considering the entire suite of issues that lead to loss of sagebrush, aspen, and riparian vegetation. Please add more information and sources.

Comment 5.

The encroachment of conifer species into riparian areas can be largely attributed to loss of floodplain connectivity and loss of riparian wetlands, not lack of wildfire in riparian areas. Loss of floodplain connectivity and wetlands is attributed to loss of beaver activity, historic or current overgrazing, and loss of woody structure in streams. Merely removing conifer species from riparian corridors likely only provides a temporary solution if wetland soil conditions required by riparian vegetation cannot be restored (see page 77). Please revise this content with new information and please revise how to best manage riparian vegetation. This source provides good background.

Macfarlane, W.W., et al. 2016 Riparian vegetation as an indicator of riparian condition: Detecting departures from historic condition across the North American West, *Journal of Environmental Management*. <http://dx.doi.org/10.1016/j.jenvman.2016.10.054>

Comment 6.

We are unfamiliar with any studies that recommend wildfire treatments in riparian areas to reduce conifer encroachment (page 77). Please provide sources or remove from the DEIS.

Comment 7.

Please add content in the DEIS to emphasize the role of beaver in maintaining healthy riparian and stream habitats, as well as how loss of beaver in history was a significant driver of degraded conditions in many Utah streams. If the causes of riparian degradation are accurately described, treatments can be better prescribed. There are many sources to draw from, at minimum please include:

Wohl, E. 2021. Legacy effects of loss of beavers in the continental United States *Environ. Res. Lett.* 16 025010 <https://doi.org/10.1088/1748-9326/abd34e>

Comment 8.

The DEIS many be using riparian and meadow wetlands interchangeably or lumping those habitats. Please make sure descriptions of these different vegetation and habitat communities

are described separately, as they need to be managed differently. For example, the role of wildfire to manage conifer encroachment is different in those vegetation communities. Please incorporate recommendations from this source:

Surfleet et al. 2020. Hydrologic Response of a Montane Meadow from Conifer Removal and Upslope Forest Thinning. *Water*. 12. doi:10.3390/w12010293

Comment 9.

On page 67, please revise:

“In riparian areas, vegetation will be treated to move it toward the desired conditions. This will be primarily to restore native species composition and reduce the encroachment of such species as conifer trees and salt cedar, where appropriate. The end result of the treatments will generally be more diversity of riparian species, as well as vigorously growing herbaceous vegetation.”

to:

“In riparian areas, floodplain connectivity will be improved in order to restore conditions that support native, riparian vegetation. This may also be done in conjunction with removal of conifer trees and salt cedar, where appropriate. The end result of the treatments will generally be more diversity of riparian species, as well as vigorously growing herbaceous vegetation.”

The rationale is that treating only vegetation in riparian areas cannot be successful if soil and hydrology conditions cannot be restored.

Comment 10.

In the Terrestrial and Aquatic Wildlife and Plants section, the species narratives are confusing and do not have a rational organization. As one example, there species accounts for common aquatic species (i.e., species not listed as Species of Conservation Concern), but similar descriptions do not occur under terrestrial sections.

Comment 11.

On page 96, please remove “limited” in the statement “In relative terms, sagebrush has limited recreation value.” The paragraph goes on to describe many high value recreational activities in sagebrush vegetation, like hunting, camping, and trails.

Comment 12.

On page 96, please update any content related to conifer encroachment into sagebrush vegetation with newer science. The only citation provided in the DEIS is over 20 years old and a great amount of research has been done on this topic in recent years.

Comment 13.

In Table 3-31, the wildlife groups are not consistent between each vegetation type. They are also not comprehensive. For example, why are rodents highlighted in some vegetation communities, when they can be found in all communities (with the exception of water). Another example is that beaver is highlighted in Deciduous Forest, but not riparian.

Comment 14.

In Table 3-31, water is not a vegetation type. Please revise.

Comment 15.

On page 152. This section is focused on nonnative, invasive species however the content refers to encroaching conifer trees. We are unaware of any nonnative conifer species that would be considered encroaching into other vegetation communities on ANF. Please revise and focus this section on nonnative, invasive species like tamarisk and cheatgrass.

Comment 16.

On page 249, the statement: “The proliferation of invasive species, woody vegetation encroachment, and drought all may affect the forage production on allotments for livestock grazing. The return of sagebrush, which is less productive and palatable to livestock, may also affect forage production on the Ashley National Forest.” Please revise this paragraph, as it is confusing in the first sentence, control of woody encroachment is insinuated to be positive, but the return of sagebrush is insinuated to be negative. Healthy sagebrush vegetation also provide for herbaceous vegetation in the understory that is high value to livestock and wildlife.

Comment 17.

On Page 147 please provide a brief mention of the role domestic sheep play in habitat suitability for Rocky Mountain bighorn sheep on the ANF.

Comment 18.

Please expand upon the role mountain goats (*Oreamnos americanus*) have on habitat suitability and competition for Rocky Mountain bighorn sheep. Please include any plans the Utah Division of Wildlife Resources has for managing mountain goats in the context of management for Rocky Mountain bighorn sheep.

Comment 19.

The DEIS may over emphasize the role of conifer encroachment on Rocky Mountain bighorn sheep habitat suitability in the ANF. Please frame management and alternative discussions around the documented limiting factors for Rocky Mountain bighorn sheep and provide specific sources.

Comment 20.

Please carefully define what the ANF means by “invasive”, “encroaching”, “nonnative”, and “noxious.”

Comment 21.

The References section seems to be missing references. We ask the U.S. Forest Service to use professional standards when preparing documents, which includes using in-text citations and providing best available science.

For example, we note that “power point presentations” provided between Forest Service staff that are summaries of existing reports or peer-reviewed research are not the best sources of information. Add the original source the information came from.

Comment 22.

We are displayed there is discrepancies and inconsistencies between the DEIS, the Draft Revised Land Management Plan, and Appendix C – At-Risk Species in reference to what species are listed as “Species of Conservation Concern.” The Eureka mountain snail and Colorado River cutthroat trout are omitted in many places. Or, it seems that in some places the term wildlife means upland wildlife and the documents may exclude fish. Please carefully correct these inconsistencies and then ensure the Alternatives assess the entire suite of the ANF’s Species of Conservation Concern.

Comment 23.

Remove the word known in this Guideline “03 Vegetation treatments should avoid removal of known raptor nests, and should avoid, minimize, or mitigate disturbance around known active nests. An active nest site is defined as a nest occupied by nesting raptors.

Rationale is this implies avoidance, minimization, and mitigation measures only apply to known nests and this could be interpreted that managers only need to reference lists of known raptor nest sites and not conduct surveys to find new nests.

Comment 24.

In the DEIS, please include species specific Guidelines for each At-Risk Species or Federally listed species that has the potential to occur on the ANF. Currently, Guidelines are lacking for Black Rosy-Finch, Yellow-billed Cuckoo, Colorado River cutthroat Trout,

Comment 25.

The language in the DEIS seems infer that pollinator species as At-Risk, however this is inconsistent with Appendix C At-Risk Species and the Draft Revised Land Management Plan. Please add western bumble bee (species under review for listing under the Endangered Species Act) and Monarch butterfly to Appendix C At-Risk Species and the Draft Revised Land Management Plan, this may resolve some of the inconsistencies.

Comment 26.

There are no pollinator species present on the Species of Conservation Concern list. Please work with the U.S. Forest Service Region 6 to add pollinator species to the Species of Conservation Concern list for the ANF. This may include Monarch butterfly, western bumblebee, or Broad-tailed Hummingbird.

Comments on the Draft Revised Land Management Plan

Comment 1.

Remove “oil and gas” as a traditional resource on the Forest. Oil and gas development is currently addressed under “2. Economic Resiliency” and should not be considered a “traditional” resource on the Forest.

Customary and traditional use means a long-established, consistent pattern of use, incorporating beliefs and customs which have been transmitted from generation to generation. This use plays an important role in the economy of the community. Oil and gas development in the ANF does not meet this description.

Comment 2.

Develop Objectives for every resource topic and ensure they are concise, measurable, and time-specific. For example, add this objective, as identified from the *Ashely National Forest Assessment for Air, Soil, and Watershed Resources*:

“Collect quantitative data on current soil resource condition, trends, and soil productivity.”

Comment 3.

Replacing the word “should” or “shall” with “must”.

Our rationale is that to meet the definition, Guidelines need to be considered a “constraint” in order to achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements. Making Guidelines clear with definitive words will avoid confusion during future project-specific permitting. This will make projects-specific planning and impact analysis more certain for both ANF planners and permittees.

Comment 4.

Add this Guideline:

“Require design features or mitigation measures to reduce impacts of management actions (compaction, displacement, increased bare soil) on all soils disturbed by the development and production of energy and minerals, timber, infrastructure, transportation, and other species uses where soils are impacted.”

Comment 5.

The ecosystem services provided in the watersheds originating in the Ashley National Forest are significant. As such, we request the Ashley National Forest prepare a separate and detailed Watershed and Riparian Conservation Strategy based on the findings of the *Riparian and wetland ecosystems of the Ashley National Forest*¹, *Assessment of Watershed Vulnerability to Climate Change for the Uinta-Wasatch-Cache and Ashley National Forests, Utah*², and the U.S. Forest Service’s *Watershed Condition Framework*. The Watershed and Riparian Conservation Strategy should identify specific Desired Conditions; how to protect and restore ecological

¹ Smith, D. Max; Driscoll, Katelyn P.; Finch, Deborah M. 2018. Riparian and wetland ecosystems of the Ashley National Forest: An assessment of current conditions in relation to natural range of variation. Gen. Tech. Rep. RMRS-GTR-378. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 101 p.

² Rice, Janine; Bardsley, Tim; Gomben, Pete; Bambrough, Dustin; Weems, Stacey; Leahy, Sarah; Plunkett, Christopher; Condrat, Charles; Joyce, Linda A. 2017. Assessment of watershed vulnerability to climate change for the Uinta-Wasatch-Cache and Ashley National Forests, Utah. Gen. Tech. Rep. RMRS-GTR-362. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 111 p.

integrity of watersheds, riparian areas, and water quality and water resources; and identify priority watershed(s) for protection, maintenance, and/or restoration.

Comment 6.

“Improve habitat connectivity along five stream reaches in the first ten years of plan implementation.”

Update this Objective to include examples of what improving habitat connectivity means.

Comment 7.

Table 2. Revise to state the following distances. Rationale is that these distances are standard in other post-2012 Forest Plans revisions and should be for the Ashley National Forest. We recognize riparian habitats as one of the most important habitats on the Forest.

Riparian Management Zone Type	Default Riparian Management Zone Distance From Feature
Perennial streams, natural ponds, lakes, open water wetlands, seeps, springs and reservoirs	300 feet on each side of the stream, measured from the bankfull edge of the stream
Intermittent seasonally flowing channels/waterbodies supporting riparian vegetation.	150 feet on each side of the stream, measured from the bankfull edge of the stream
Ephemeral stream channels/waterbodies, unstable or potentially unstable areas.	150 feet on each side of the stream, measured from the bankfull edge of the stream/waterbody

Comment 8.

Similar to our previous comment, there are currently no objectives for Riparian Management Zones. Add the following Objective, at minimum.

“Restore the vegetation structure and composition of at least 500 acres in riparian management zones every 5 years. Priority shall be given to zones that are at most risk from large-scale high-intensity fire, flooding events associated with climate change, or associated with streams listed as 303(d): Impaired Waters.”

Comment 9.

Add specific Standards or Objectives for the other At-Risk plant species, specifically those that are listed in the Species at Risk Report, Table 3. Currently, there is only specific objectives for Evert’s wafer-parsnip and it is unclear why other At-Risk species do not have specific objectives.

Comment 10.

Consider removing:

“02 Within the Anthro Plateau land type association, change no less than 200 acres of mountain big sagebrush every 5 years during the life of the plan from 20 percent or greater canopy cover,

to less than 5 percent canopy cover to enhance brood rearing and summer habitat for greater sage-grouse.”

Rationale is that this is not in accordance with the metrics from current greater sage-grouse management recommendations.

Comment 11.

We acknowledge the challenges preparing a revised Plan with the changing status of management plans for greater sage-grouse. However, please revise the Plan to include Desired Conditions, Objectives, and Guidelines that are in line with federal management plans that are currently in place for greater sage-grouse.

Comment 12.

Please revise, “Breeding populations of federally listed threatened, endangered, proposed, and candidate species have not been documented on the Ashley. Thus, there are few specific plan components for those species.”

Please revise to include specific Guidelines for the protection of suitable habitat Yellow-billed Cuckoo, similar to what has been done for the Canada Lynx (FW-GL-WL 11). The Endangered Species Act protects all portions of suitable year-round habitat for listed species, not just breeding populations. There is suitable habitat for these species, albeit that known occurrences of these species are few.

Comment 13.

Under Attachment E, it states the table is “an example and is not an exhaustive list for all at-risk species.” Please update the table to be exhaustive and include all at-risk species. The table is nearly complete and should be a finished product.

Comment 14.

We are pleased to see the language “Collaborate with State wildlife agencies for opportunities to use beaver (relocation) as an aquatic restoration tool, where it would not conflict with other land uses and suitable habitat.”

Comment 15.

Please add Bald Eagles and Golden Eagles to the species assessments, as they are protected under the Bald and Golden Eagle Protection Act. These species and the federal law seem to have been omitted from all documents.

Comment 16.

Revise:

“06 Vegetation management activities and prescribed fires should avoid or mitigate known Eureka mountain snail sites.”

To:

“06 Vegetation management activities and prescribed fires avoid Eureka mountain snail sites.”

Rationale is that because of the rarity of this species and limited number of known sites in the ANF, mitigation for impacts to known Eureka Mountain snail sites is not likely feasible. The ANF has identified very few Species of Conservation Concern, as such, measures to protect these species need to be specific (e.g., doing surveys for this species in potential habitats in advance of treatment activities).

Comment 17.

Add the following Desired Conditions:

“Sustainable populations of native and desirable nonnative, plant and animal species are supported by healthy ecosystems, essential ecological processes, and land stewardship activities, and reflect the diversity, quantity, quality, and capability of natural habitats.”

“Land management activities are designed to maintain or enhance sustainable populations of both common and uncommon species and consider the relationship of threats (including site-specific threats) to species survival.”

“The ANF provides for high quality hunting, fishing, and wildlife watching opportunities.”

Comment 18.

Revise:

“03 Vegetation treatments should avoid removal of known raptor nests, and should avoid, minimize, or mitigate disturbance around known active nests. An active nest site is defined as a nest occupied by nesting raptors.”

to:

“03 Vegetation treatments avoid removal of raptor nests, and should avoid, minimize, or mitigate disturbance around known active nests. An active nest site is defined as a nest occupied by nesting raptors.”

Comment 19.

The role of the Migratory Bird Treaty Act needs to be included in the document. Add the following guideline:

“Vegetation management activities or disturbance to vegetation shall follow best management practices to avoid and minimize impacts to migratory birds listed by the Migratory Bird Treaty Act.”

Comment 20.

Please provide rationale and sources as to why 25% and not 20% canopy cover of sagebrush was used. Existing resources find that in occupied or suitable pygmy rabbit habitat (as identified by the Wyoming Natural Diversity Database [Wyoming Game and Fish Department 2010³] and The

³ Wyoming Game and Fish Department. 2010. State wildlife action plan. Cheyenne, Wyoming Game and Fish Department. Available: http://wgfd.wyo.gov/web2011/Departments/Wildlife/pdfs/SWAP_2010_FULL_OCT0003090.pdf (October 2010).

Nature Conservancy [Kiesecker et al. 2009⁴]) vegetation management activities should be designed to maintain interconnected patches ½ acre in size of big sagebrush (*Artemisia tridentata*) that are tall (greater than 50 centimeters) and dense (greater than 20 percent cover).

12,5,6

Comment 21.

Add the following Desired Conditions and Guidelines to Livestock Grazing:

“Forage, browse, and cover meet the needs of wildlife, and authorized livestock are managed in balance with available forage. Areas that are grazed have, or are trending toward having, satisfactory soils, functional hydrology, and biotic integrity.”

“Grazing after fire (planned and unplanned ignitions) should be managed so as not to cause a trend away from the native or desired nonnative species desired condition. This may include deferment for one or more growing seasons following unplanned fire, which will be defined at the project level when restoration needs are assessed.”

“All new water developments shall provide for small mammal and bird escape and should be bat-friendly.”

“All new or replacement fencing shall be wildlife friendly and allow the safe passage of both large and small wildlife species.”

Comment 22.

In the Livestock Grazing section, consider a revision of the Guidelines to consider the following resources and themes. We are most concerned about impacts to riparian and wetland habitats as a result of livestock grazing. Please update the utilization rate and stubble height guidelines. Consider further inclusion of mule deer, moose, and elk forage needs when determining livestock animal unit months on key winter range, migration routes, holding areas, and fawning areas. Please see the following resources when seeking input on revisions: Collaborative Group on Sustainable Grazing For U.S. Forest Service Lands in Southern Utah

⁴ Kiesecker JM, Copeland H, Pocewicz A, Nibbelink N, McKenney B, Dahlke J, Holloran M, Stroud D. 2009. A framework for implementing biodiversity offsets: selecting sites and determining scale. *BioScience* 59:77–84.

⁵ Heady, Laura T. and Laundré, John W. (2005) "Habitat use patterns within the home range of pygmy rabbits (*Brachylagus idahoensis*) in southeastern Idaho," *Western North American Naturalist*: Vol. 65 : No. 4 , Article 7. Available at: <https://scholarsarchive.byu.edu/wnan/vol65/iss4/7>

⁶ Steve Germaine, Drew Ignizio, Doug Keinath, and Holly Copeland (2014) Predicting Occupancy for Pygmy Rabbits in Wyoming: An Independent Evaluation of Two Species Distribution Models. *Journal of Fish and Wildlife Management*: December 2014, Vol. 5, No. 2, pp. 298-314.

(2012⁷), Straube (2017⁸), Avertt et al. (2019⁹), Clarry and Leininger (2000¹⁰), Winward (2000¹¹), Hall and Bryant (1995¹²), and Carter et al. (2011¹³). We also find the library of research at University of California Rangelands¹⁴ applicable to the ANF.

We find the Inyo National Forest's approach to livestock and rangeland grazing to provide more clear Desired Conditions, Objectives, and Monitoring metrics, and are more in line with best available science. Consider revising the ANF Plan to include specific utilization Standards and Guidelines for each grazing vegetation type. Please consider the following vegetation types, at minimum: wet meadow, moist meadow, dry meadow, sagebrush, subalpine meadow, aspen, and willow. Please refer to the document *Rangeland Management Supplemental Report Inyo National Forest Supplement to USDA Forest Service Pacific Southwest Region Rangeland Analysis and Planning Guide R5-EM-TP-004* when revising the Livestock Grazing section.

Comment 23.

Add the following Desired Conditions:

“Both nonmotorized and motorized use is managed to respect ecological systems, including wildlife, and different user groups.”

“Roads allow for safe and healthy wildlife movement throughout the Forest. Vehicular collisions with wildlife are minimized and rare.”

Comment 24.

Note that the Recreation section contains many Desired Conditions, but very limited Objectives and Guidelines. Please revise to provide more detail on ways to achieve the Desired Conditions.

Comment 25.

The Monitoring Plan should include specific monitoring questions and indicators for each Federally listed species and Species of Conservation Concern, not just Greater Sage-Grouse, fringed myotis, and Colorado River cutthroat trout.

⁷ Collaborative Group on Sustainable Grazing for U.S. Forest Service Lands in Southern Utah. 2012. Final Report and Consensus Recommendations, December 2012. Accessed at: <https://ag.utah.gov/documents/SustainableGrazingSoUtForests.pdf>

⁸ Straube, M. 2017. Collaborative groups related to sustainable grazing on public lands. *Human-Wildlife Interactions* 11(3):311-319, Winter 2017

⁹ Averett, J. P., Michael J. Wisdom, Bryan A. Endress. 2019. Livestock Riparian Guidelines May Not Promote Woody Species Recovery Where Wild Ungulate Populations Are High. *Rangeland Ecology & Management* 72 (2019) 145-149

¹⁰ Clary, W.P, and W. C. Leininger. 2000. Stubble height as a tool for management of riparian areas. *Journal of Range Management*. 53: 562-573.

¹¹ Winward, Alma H. 2000. Monitoring the vegetation resources in riparian areas. Gen. Tech. Rep. RMRS-GTR-47. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 49 p.

¹² Hall, F.C., and L. Bryant. 1995. Herbaceous Stubble Height as a Warning of Impending Cattle Grazing Damage to Riparian Areas. United States Department of Agriculture Forest Service Pacific Northwest Research Station General Technical Report PNW-GTR-362 September 1995.

¹³ Carter, J., et al. 2011. in Monaco, T.A. et al. comps. *Proceedings - Threats to Shrubland Ecosystem Integrity*; 2010 May 18-20; Logan, UT. Natural Resources and Environmental Issues, Volume XVII. S.J. and Jessie E. Quinney Natural Resources Research Library, Logan Utah, USA.

¹⁴ <http://rangelands.ucdavis.edu/>

Comment 26.

In the Monitoring Program, Wildlife “Species of Interest” are elk, mule deer, and moose. If these species are included, please consider adding other wildlife of interest.

Comment 27.

In the Monitoring Plan, using vegetation communities as the central indicator may not lead to successful outcomes for wildlife. Tracking presence/absence or numbers of species is a more rigorous indicator to monitor the outcomes of management. Additionally, vegetation may also not a suitable metric for all species. For example, disease in Rocky Mountain bighorn sheep is a major impact to populations.

Please update the monitoring question and indicators to acres of occupied habitat, number in population, or another metric that directly relates to the presence of the species of interest.

Comment 28.

The identification of Forest Focal Species are important for effective monitoring. Currently the Plan only identifies one Focal Species: aspen. We believe that one Focal Species is not appropriate enough to monitor the health and integrity of the ANF. Please consider developing a list of Focal Species that represent the integrity of the ANF’s important ecosystems.

Along with selection of appropriate Focal Species, we ask the ANF to consider assigning a priori trigger points in their Monitoring Plan. Trigger points will prompt a management response or review of the management decisions. While this is not an exhaustive list, Focal Species for the following ecosystems and Desired Conditions should be considered: stream and riparian, wetlands, landscape connectivity, aspen, sagebrush, alpine.

We recognize the selection of Focal Species requires careful thought. For example, even if a species is a good representation of the integrity of an ecosystem, it still must be abundant enough to effectively monitor and be able to make statistical inferences. There are several helpful documents related to the use and selection of Focal Species. We ask the ANF to consider the recommendations and guidelines in the following resources: Noon et al. (2009)¹⁵, Schultz et al. (2013)¹⁶, Hayward et al. (2016)¹⁷, and National Advisory Committee for Implementation of the National Forest System Land Management Planning Rule (2018)¹⁸.

¹⁵ Noon, B. R., K. S. McKelvey, and B. G. Dickson, 2009. Multispecies conservation planning on U.S. federal lands. Pages 51–84 in J. J. Millspaugh and F. R. Thompson, III, editors. *Models for planning wildlife conservation in large landscapes*. Academic Press, New York, New York, USA. Available online at:

https://www.sierraforestlegacy.org/Resources/Conservation/Biodiversity/BD-Noon-et-al_2009.pdf

¹⁶ Schultz, C.A. 2013. Wildlife Conservation Planning Under the United States Forest Service’s 2012 Planning Rule. *Journal of Wildlife Management* 77(3):428-444. DOI: 10.1002/jwmg.513

¹⁷ Hayward, G. D., C. H. Flather, M. M. Rowland, R. Terney, K. Mellen-McLean, K. D. Malcolm, C. McCarthy, and D. A. Boyce. 2016. Applying the 2012 Planning Rule to conserve species: a practitioner’s reference. Unpublished paper, USDA Forest Service, Washington, D.C., USA.

¹⁸ National Advisory Committee for Implementation of the National Forest System Land Management Planning Rule. 2018. *Final Recommendations to the Secretary of Agriculture and the Chief of the Forest Service – February 3, 2018*.

Comment 29.

In the Monitoring Program, we note under Terrestrial Vegetation there are detailed ecological indicators for sagebrush habitat (i.e., conifer encroachment), please provide detailed indicators for other vegetation communities.

Comment 30.

For all wildlife related topics, please consider adding “Forest Species-specific Monitoring and Studies” and “Species Monitoring Studies Conducted in Collaborations with Partnerships” in the “Potential Data Sources.”

Comment 31.

Under Desired Conditions FW-DC-FVA 01, “Plant species richness is within the range of variability” please expand on what the standard is, as this concept is not well defined in the literature.

Comment 31.

Under Desired Conditions FW-DC-FVA 01, “Invasive plant species might be present, but these do not disrupt ecological processes nor diminish community resilience” please provide the standard and reference this source:

Stohlgren, T. J., D. Binkley, G. W. Chong, M. A. Kalkhan, L. D. Schell, K. A. Bull, Y. Otsuki, G. Newman, M. Bashkin, and Y. Son. 1999. Exotic plant species invade hot spots of native plant diversity. *Ecological-Monographs* 69:25-46.

Comment 32.

Under Desired Conditions FW-DC-FVA 02, “Aspen stands, both seral and persistent community types, regenerate sufficiently to maintain long-term sustainability, especially following disturbances. New aspen sprouting should occur equal to, but may extend beyond, the pre-disturbance perimeter” please include more detail about recruitment, versus simple regeneration.

Comment 33.

Under Desired Conditions FW-DC-FVA 02, “Crown cover of aspen sprouts in persistent aspen is 40 percent or greater at 5 years post-disturbance” please expand on what the disturbance is in reference to. For mechanical disturbance for this aspen type, this standard may be inappropriate if the goal is to emulate disturbance ecology of the species.

Comment 34.

Under Guidelines (FW-GL-FVA) 01 “To protect aspen sprouting”, we find that “sprout” is an inappropriate term and replace with sucker or vegetative regeneration. We also find that protection from ungulate herbivores is the most important factor affecting aspen sustainability and resilience in the western U.S. Please revise to include this factor.

Comment 35.

Under Guidelines (FW-GL-FVA) 01 “To help support sprouting and sprout survival sufficient to perpetuate the long-term viability and resilience of aspen clones, livestock utilization of key forage species should be limited to no greater than 50 percent of current year’s growth” we request the following revisions be made:

- The 50 percent should pertain to understory plants, as 50percent of current year aspen sucker growth would be catastrophic because sucker leaders would be stymied.
- Add a browse target, such as 20-30 aspen leaders browsed annually.
- See: Olmsted, C. E. 1979. The ecology of aspen with reference to utilization by large herbivores in Rocky Mountain National Park. Pages 89-97 in M. S. Boyce and L. D. Hayden Wing, editors. North American Elk: Ecology, Behavior, and Management. University of Wyoming, Laramie, WY
- See: Jones, B. E., D. F. Lile, and K. W. Tate. 2009. Effect of simulated browsing on aspen regeneration: implications for restoration. Rangeland Ecology and Management 62:557-563.

Comment 36.

Kitchen et al. 2019 needs to be used as a central source in the aspen section because this document was lead by the U.S. Forest Service and is specific to Utah aspen management.

Kitchen, S. G., P. N. Behrens, S. K. Goodrich, A. Green, J. Guyon, M. O’Brien, and D. Tart. 2019. Guidelines for aspen restoration in Utah with applicability to the Intermountain West.

Comment 37.

Under Guidelines (FW-GL-FVA) 03 “To minimize aspen regeneration failure, projects designed to regenerate aspen by cutting down, burning, or removing overstory aspen stems should be no less than 75 acres” we are not aware of any scientific support for this large acreage. Please provide sources or revise.

Comment 38.

Under Guidelines (FW-GL-FVA) 03 “except where silvicultural prescriptions specify smaller treatment areas. In persistent aspen stands, such projects should not consist of small treatments interspersed within aspen” we find this is inaccurate. Please see Rogers 2017 and Rogers et al. 2014 for recommended treatment options (e.g., browse protection).

Rogers, P. C. 2017. Guide to Quaking Aspen Ecology and Management. USDI, Bureau of Land Management, Salt Lake City, Utah.

Rogers, P. C., S. M. Landhäusser, B. D. Pinno, and R. J. Ryel. 2014. A Functional Framework for Improved Management of Western North American Aspen (*Populus tremuloides* Michx.). Forest Science 60:345-359.

Comment 39.

Under Guidelines (FW-GL-FVA) 04 “When aspen sprouting is a desired outcome, timber harvest prescriptions should include cutting down or removing aspen trees in harvests in seral conifer/aspen communities in order to facilitate new aspen sprouting” we find this to be mostly incorrect. Leaving standing aspen is suitable and leaving downed cut conifers can support protection from browsers and/or facilitate post-harvest burning. Cutting only a few aspen, or none at all, will result in aspen regeneration. See:

Rogers, P. C., S. M. Landhäusser, B. D. Pinno, and R. J. Ryel. 2014. A Functional Framework for Improved Management of Western North American Aspen (*Populus tremuloides* Michx.). *Forest Science* 60:345-359.

Comment 40.

The aspen section does not adequately address a post-treatment (or general landscape, pre-treatment) protection from browsers. While browsing is not as much of an issue in the main Uintas, but is on the drier peripheral sites found in the eastern Uintas and discontinuous ANF units to in the Uinta Basin. Consider revising with a plan for monitoring browsers and adaptive monitoring of all aspen projects.

Comments on Appendix C. At-Risk Species

Comment 1.

Table C-1 is missing species that are listed as Candidate or “Under Review” under the Endangered Species Act. Please add species narratives for:

- monarch butterfly (*Danaus plexippus*)
- Western bumble bee (*Bombus occidentalis*)

Comment 2.

Where is states, “Surveys have been conducted in suitable habitat on the Ashley National Forest; however, there are no records of occurrence on the forest. The species does not exist on the Ashley National Forest.”

Revise to:

“Surveys have been conducted in suitable habitat on the Ashley National Forest; however, there are no records of occurrence on the forest. The species is not likely to occur on the Ashley National Forest.”

Rationale: While preferred habitat for Yellow-billed Cuckoo is minimal in the Forest Plan area, this species may use the ANF during migration or other seasonal movements. Yellow-billed Cuckoo are notoriously cryptic and difficult to detect during surveys.

Comment 3.

In Table C-2, add citations for source of information in the Table. Note the plant accounts have citations but other species do not.

Comment 4.

We believe it to be a terminology error in Table C-2, or it is confusing to the reader. Please confirm or describe the Forest Service Status as “Species of Conservation Concern” or “Sensitive.”

Comment 5.

Note the Utah Division of Wildlife has changed the terminology for species listed in their Wildlife Action Plan to “Species of Conservation Need.”

Comment 6.

Black Rosy-Finch is a Utah “Species of Conservation Need” and is on the Partners in Flight Red Watch List (Rosenberg et al. 2016¹⁹).

Comment 7.

For Black Rosy-Finch, where it states “Occurrences are at high elevations in the associated LTAs.” Change to: “Breeding occurrences are at high elevations in the associated LTAs. Non-breeding occurrences may occur throughout the Ashley National Forest.”

Comment 8.

Consider adding the species that are also U.S. Fish and Wildlife Service Birds of Conservation Concern²⁰ to this list.

Comment 9.

Colorado River cutthroat trout is also a Utah Species of Conservation Need.

Comment 10.

The occurrence descriptions for Mexican Spotted Owl between Table C-2 and C-3 do not correspond. One suggests this species does not occur in the Ashley National Forest, the other suggests it does. Please re-analyze and provide sources.

Comment 11.

Table C-4 seems to focus on habitat suitability for some species only during the breeding season, and not the year-round habitat the ANF. Species need habitat during all seasons to persist over their annual cycle. Please revise the table to reflect the value of year-round habitat on the ANF.

Table C-4 also seems to focus on very limited habitat characteristics in their assessment of suitability. Please expand.

Comment 12.

¹⁹ Rosenberg, K. V., J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J. D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J. J. Giocomo, R. H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, and T. Will. 2016. Partners in Flight Landbird Conservation Plan. Partners in Flight Science Committee. <<https://partnersinflight.org/resources/the-plan/>>.

²⁰ <https://www.fws.gov/migratorybirds/pdf/management/birds-of-conservation-concern-2021.pdf>

Please confer with Forest Service biologists that are part of the Rosy-Finch Working Group to update sections related to Black Rosy-Finch. Members of the Rosy-Finch Working Group have access to an exhaustive literature review that can greatly improve the Land Management Plan.

For example, this statement is not accurate and there is no source material provided to support: “Currently there are few human-related activities that occur on or threaten this species’ habitat; this, this species’ habitats are likely to remain sustainable over time. This is especially true if habitat continues to remain or trend toward satisfactory conditions.”

Revise to:

“Human-related activities that could threaten this species habitat may include grazing and recreation. The impact of climate change on the alpine is likely to make habitat suitability unstable or uncertain over time.”

Comment 13.

Consider adding the impact of recreational rock climbing as a human-related stressor on Peregrine Falcon nests.

Comment 14.

In table C-3 under Mexican Spotted Owl, please remove “but there is minimal timber harvest that occurs on the Ashley National Forest” because the DEIS Alternatives include increased timber harvest in the future. This statement is also confusing because the Table implies that Mexican Spotted Owl do not occur on the ANF.

Comment 15.

If it can be confirmed a species does not exist in the ANF (e.g., Barneby ridge-cress) and it is not suitable to restore the species, please remove ecological stressor or human-related stressor descriptions as it confuses readers.

Comment 16.

This Appendix is missing an assessment of the Eureka mountain snail.