

February 28, 2018

Forest Service
Attn: Forest Plan Revision
Custer Gallatin National Forest
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The Pryors Coalition and partner organizations¹ welcome the opportunity to comment on the Proposed Action for revision of the Management Plan for the Custer Gallatin National Forest.

The Pryors Coalition is a collaboration among a number of organizations and many “unattached” individuals who may or may not be associated with those organizations. The defining characteristic of Pryors Coalition and partners (organizations and individuals) is a strong desire to preserve this very special and vulnerable landscape for the future. (See Appendix I.)

Please note that our comments are almost exclusively about the Pryor Mountain part of Custer Gallatin National Forest (CGNF). Nevertheless some of our comments may be applicable more generally to other areas of the Forest. We have studied the Proposed Action carefully - including Forest wide topics that apply to the Pryors, and specific sections on the Pryors.

As we have discussed in earlier comments (including our April 5, 2016 letter) the Pryors were largely neglected in the 1986 Custer NF Management Plan. They were lost in the “crack” between the Beartooths and the Dakota Prairie Grasslands (then part of Custer NF). Their unique value was neither acknowledged nor appropriately considered in management goals and directions. That was then; This is now.

The 2018 Custer Gallatin NF Proposed Action is considerably improved including recognition of, and description of, the unique ecological and cultural values of the Pryor Mountain landscape. Also we are pleased that the Proposed Action designates the Pryors as a distinct Geographic Area and includes a few Pryors-specific Desired Future Conditions and other plan components.

We think there are still important improvements that can be made to the Plan to address preservation of the many special characteristics of the area. Most of this letter will elaborate on those possibilities.

1. Unified Management:

A very important principal for management of the Pryors landscape must be to recognize that this small island range is an integral whole and needs to be managed as such. Its management is fractured among three federal agencies (CGNF, BLM & BCNRA), but the boundaries between the lands managed by the three federal agencies have no correlation with ecological, geological or geographical boundaries. The various plant and animal species and their ecological communities are oblivious to the arbitrary agency boundaries. Similarly these boundaries have little relevance for recreation and other public activities in the Pryors. Yet management policies by one management agency influence the landscape on the other side of the boundary.

The three managing agencies need to have a common holistic vision of the desired future conditions in the Pryors. Goals and management policies need to be unified, consistent and coordinated. Several comments below identify ways the CGNF Proposed Action should be modified to be consistent with adjacent BLM management.

2. Opportunity and Responsibility for Fresh Look at Management:

This revision of the 32 year old Forest Management Plan including the Pryors is an opportunity to look at the land with fresh eyes, and thoroughly reconsider past management policies and goals. The CGNF Planning Team has a responsibility to take this fresh look, and to overcome the natural bureaucratic inertia to maintain the status quo.

¹ The Pryors Coalition, Beartooth Back Country Horsemen, Montana Wildlife Federation, Our Montana, Eastern Wildlands Chapter of the Montana Wilderness Association, Yellowstone Valley Audubon Society, Montana Wilderness Association, Sierra Club.

One of the many ways the Pryor Mountains are unique within CGNF is the extent to which public interest in the area has changed since the 1986 Management Plan. Many more people go to the Pryors now and are much more interested in the ecological, cultural, and quiet recreational values of the landscape. It is doubtful there has been more change in public attitude regarding any other part of CGNF.

Several comments below identify places where the inertia of the 32 year old Management Plan may be limiting consideration of a new vision for the Pryors.

3. “Backcountry Areas” are not a substitute for Recommended Wilderness Areas:

We appreciate that CGNF recognizes the significance of the Punch Bowl, Bear Canyon and Big Pryor Plateau areas. Proposing to designate those areas as “Backcountry Areas” is a step in the right direction. But we believe those areas in the Pryors merit a designation providing greater protections.

CGNF has designated numerous Recommended Wilderness Areas (RWAs) in western Montana and is proposing adding more RWAs in western Montana in this Proposed Action. There is a great scarcity of protected Wilderness in central and eastern Montana (east of the Beartooths). This is not a regional jealousy argument. The landscapes east of the Beartooths are very different from any western Montana landscapes ecologically, geologically, scenically, culturally and other unique characteristics. The Pryors RWAs we have proposed (See Appendix V.) would substantially enrich the ecological diversity of the National (and Montana) Wilderness Preservation System by adding unrepresented landscape types, ecosystems and plant communities to the System. Giving these areas an RWA designation “equal” to that of western Montana landscapes will send a clear message to the public (those who do not already know) and current and future Forest service staff, that the “different” eastern Montana wildlands have unique and special qualities, characteristics and opportunities, which are equally important to preserve as Montana’s western wildlands.

While quiet recreation is important to us, we believe preserving these landscapes in as close to their natural state as possible is an even higher priority. CGNF’s proposal and even the name “Backcountry Area” appear focused on recreation. It seems, at best “Wilderness Lite.” “Wilderness” (RWA or WSA) is long understood to mean much more than recreation. The FS has a long established classification for protection of important and rare natural wildlands. And CGNF has a mandate (in the 2012 Planning Rule§ 219.7 (c)(2)(v)) to look for and designate appropriate lands as Recommended Wilderness. This may be the last opportunity to do so in the Pryors.

This is also an example of inconsistency with the other federal management agencies in the Pryors. Approximately half of the BLM land in the Pryors has been identified and designated as wilderness in waiting (WSA and LWC). 11,000 acres of LWCs were just added in the 2015 BLM Resource Management Plan. In contrast CGNF is proposing only 6,800 acres of RWA (total) – 9% of the Forest Service land in the Pryors. Apparently BLM and BCNRA put a much higher value on the natural Pryor Mountain landscape than CGNF does.

The management vision and policies in the Pryors should not change arbitrarily across the arbitrary agency boundaries. All suitable areas, including those contiguous with BLM designations, should be designated as RWAs.

4. Why isn’t CGNF proposing Recommended Wilderness in the Pryors?

We have proposed a substantial expansion of the minimalist Lost Water Canyon RWA, and the designation of three highly qualified additional RWAs in the Pryors. (Again see Appendix V.) In our selection process we worked within the framework of the 2008 Travel Management Plan. These areas have either no designated public motorized routes, or only a few miles of dead end routes. Thus almost the entire extensive network of motorized routes in the Pryors is preserved. In particular this includes all the most popular and heavily used routes to the best views and through all the many landscape types. Our proposal also preserves all existing motorized loop routes.

We think CGNF should enthusiastically take advantage of this opportunity to recognize the value of, and increase protection for these parts of the Pryors landscape. That action would preserve wildlife habitat, protect unique ecosystems and provide enhanced quiet recreation opportunities. All this would result in much more balanced management of the Pryors rather than the current management which is largely about 124 miles of motorized routes.

The tiny, 6,800 acre, Lost Water Canyon RWA was designated in the 1986 Management Plan when the Pryors were very much an afterthought that slipped through the crack between the Beartooths and the Dakota grasslands.² Yet

² See our letter of April 5, 2016, **Pryors Coalition: Comments on Assessment Phase, CGNF Plan Revision**

CGNF proposes no change to the 1986 “vision” of the Pryors.³ Why not? The Proposed Action does not explain this failure. The Planning Rule tasks CGNF with looking for areas that qualify and might be added to the National Wilderness Preservation System. We propose outstanding opportunities to do so.

CGNF’s Appendix D includes some commentary and information relevant to evaluation of potential RWAs. We find some of this information understated and incomplete in support of RWA designation, and overstated and vague in opposition to RWA designation. Yet nowhere in Appendix D (or in the Proposed Action) is there any statement that any one of the RWAs we propose fails to meet any of the evaluation criteria specified in the Planning Handbook (section 72.1). Significantly Appendix D mentions, but never focuses its evaluation on the “notably less developed” Bear Canyon and Big Pryor Plateau areas we propose as RWAs. Why then is no new RWA in the Proposed Action?

CGNF’s Appendix D includes repeated phrases like, *manageability issues*, *complicate the manageability as wilderness*, *difficult to manage as wilderness*, *manageability as wilderness of the area in its entirety would be challenging*. But it is never explained just what “manageability issues” are of concern. Any “designated area” will have management issues. What management issues would RWAs in the Pryors have that would be more challenging than for other USFS RWAs? How would they be more challenging than other RWAs with grazing allotments? How would they be more challenging than other RWAs with roads as boundaries (as FS policy encourages)? How would management issues for RWAs in the Pryors be more challenging than management issues for BCAs? How are management issues for RWAs on FS land more challenging than management issues on contiguous BLM WSAs? And importantly, Why do these extra challenges (if any) outweigh the benefits of RWA designation?

These questions need to be answered independently for each of the four RWAs we propose.

5. Wilderness Evaluation: Proposed Action, Appendix D:

A. Criteria:

Four key criteria for evaluation of an area’s “*suitability for inclusion in the National Wilderness Preservation System*” are to evaluate “*the degree to which the area...*”⁴

- a. “*...generally appears to be affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticeable (apparent naturalness).*”
- b. “*...has outstanding opportunities for solitude or for a primitive and unconfined type of recreation.*” (Only one of the two is required and is not required on every acre.)
- c. “*...may contain ecological, geological, or other features of scientific, educational, scenic, or historical value.*” (Such features are not required but enhance the case for RWAs.)
- d. “*... may be managed to preserve its wilderness characteristics.*” (For instance, areas that adjoin recommended BLM lands.)

We think all the areas in the Pryors we have proposed as RWAs overwhelmingly satisfy all aspects of each of the four criteria. We appreciate that the narratives and some other information in Appendix D provide some support for this claim. But a much stronger and more enthusiastic case for RWA designation can be made. We refer CGNF to our letter of April 13, 2017, *The Pryors Coalition: Recommended Wilderness Areas in the Pryors*, reproduced as Appendix V of this letter. Of course arguments against RWA designation must also be considered, but some of these are overemphasized, overstated, and occasionally incorrect in Appendix D of the Proposed Action.

B. Lost Water canyon to Crooked Creek Canyon, Polygon Number: PRYORS 1 (page 39):

- CGNF reports that this “*area is generally natural appearing*” and has “*high levels for solitude and high levels of challenge.*” This more than satisfies criteria a. and b. above for Wilderness.
- CGNF reports the area has “*7,000 acres of non-motorized interior.*” This apparently refers to semi-primitive non-motorized (SPNM) ROS. But the Wilderness Evaluation in Appendix D does not mention the more relevant 10,421 acres of inventoried roadless area (including no motorized trails). By FS definition and/or policy inventoried roadless areas, like RWAs, have no setback from boundary roads. The FS definition of SPNM excludes area less than ½ mile from roads. All 10,421 acres of inventoried roadless area should be included in the Lost Water Canyon RWA.

³ Note that in 2015 BLM increased its 1980s proposed wilderness on East Pryor by 11,000 acres by designating Lands with Wilderness Character (LWC).

⁴ Planning Handbook 72.1 and based on 1964 Wilderness Act. Underline emphasis added.

- CGNF reports reduced opportunities for solitude due to sight and sound intrusions from roads on Commissary, Island and Cave ridges. But Cave Ridge Rd has been closed to the public for ten years, Island Ridge Rd receives only light use. Commissary Ridge Rd is well, but not heavily used. Also recall that the Planning rule says that solitude is not required on every acre of RWA and in fact is not required at all.
- CGNF reports that “*The eastern side appears generally modified from wild horse grazing.*” This is not accurate. The horse range is in fact modified by horse grazing, but the repeated use of the word *appear* and *apparent* in the Planning Handbook (5 times in a brief segment), and the language “*substantially noticeable*” clearly indicates that the naturalness criteria is about the subjective impression of naturalness to a lay observer rather than a data driven analysis by ecologists. This again raises the issue of management consistency among federal agencies since much of the horse range is designated as Wilderness Study Area by BLM.
- CGNF mentions the BLM land across the southern border of this area, but does not mention (or show on the maps) that all that BLM land is designated Wilderness Study Area. With the limited 6,800 RWA designation in the Proposed Action all the BLM land south of boundary is proposed Wilderness and almost all the CGNF land north of the boundary is not. Yet this arbitrary agency boundary is invisible on the ground. This will complicate coordinated interagency management. What difference between the land north and south of this invisible boundary justifies recommending Wilderness on one side but not on the other?
- CGNF reports no occurrences of “federally listed T & E species in the polygon.” But a significant population of *Shoshonea pulvinata*, is within this area. This species is identified as a Species of Conservation Concern (SCC) for this planning process in CGNF document fseprd567875.
- Please see our letter of April 13, 2017, ***The Pryors Coalition: Recommended Wilderness Areas in the Pryors*** which is reproduced as Appendix V of this letter for more reasons that an RWA substantially larger than 6,800 acres is appropriate in this area.

C. Bear Canyon and Big Pryor Mountain, Polygon Number: PRYORS 9 (page 45):

- CGNF reports that this “*area is generally natural appearing.*” This understatement more than satisfies criteria a. above for Wilderness.
- CGNF claims, “*Most of the area provides for low levels of solitude because of the existing roads and motorized trails....*” This is inconsistent with CGNF’s claim elsewhere of a “*sense of remoteness*” due to “*limited road access.*”⁵ And it is, at best, a “glass is half empty” statement. As many members of our organizations can attest, much of this area provides outstanding opportunities for solitude and primitive and unconfined recreation. (Again remember only one is required.) This is because it is possible to get away from the motorized trails - and some of them are lightly used. The only roads (ML2 or higher) in this polygon are Tie Flat Rd and Mill Hollow Rd near the far east edge - totaling about 5 miles. CGNF reports 41.25 road miles on page 46. This must be counting Powerline Rd, Pryor Mountain Rd, and Crooked Creek Rd. which define the north and east boundaries of the polygon but are not within it. This still does not seem to come close to 41 miles.
- CGNF reports there are “*numerous range improvements*” in this polygon. This needs considerable discussion.

First, cattle grazing is permitted within wilderness areas, so that can’t disqualify an area from consideration as an RWA for lack of “*apparent naturalness.*” CGNF’s map (Proposed Action, Appendix D, page 50) shows very miles of fence within the polygon – nowhere close to the 26 miles reported on page 46 - unless approximately 20 miles of fences on the Forest boundary are inappropriately counted. CGNF reports “68 water improvements” which seems consistent with CGNF’s map on page 50. This is barely one water improvement per square mile in the 42,000 acre polygon. But the map shows these water developments are highly concentrated near certain motorized trails. That leaves most of the polygon with almost no range improvements!

In CGNF’s first draft of the Wilderness Inventory (WI) much of Big Pryor Mountain was excluded from the Inventory based on a GIS model of range improvements. We have shown that the methodology used in the

⁵ “*Road access is limited in the Pryor Mountains, and recreation use is relatively light....*” and “*Limited road access to high elevation areas and limestone rimed canyons offers visitors a sense of remoteness and discovery*” on page 118 of the Proposed Action. (Emphasis added.)

model was very seriously flawed.⁶ CGNF subsequently added those excluded areas into the WI generating this polygon Pryors_9. But it appears from the claim of “numerous” range improvements, and reference to the “volume” of range improvements in a meeting with CGNF, that CGNF still considers the results of the discredited GIS model to be valid.⁷ Is this why no RWAs are proposed on Big Pryor?

According to the Planning Handbook the issue is not the “volume” or number of range developments, but whether or not they are “*substantially noticeable*” and degrade the “*apparent naturalness*” of the area. We carried out a **Field Study of Noticeability of Range Improvements and Apparent Naturalness of Upper Big Pryor Mountain**.⁸ This study convincingly demonstrated that the range improvements in the study area are *not* substantially noticeable and do *not* degrade the apparent naturalness of the area. This is despite a strong sampling bias in the study which was carried out along the motorized routes where the highest concentration of range developments are located. Elsewhere the range improvements are rarely even visible.

- CGNF’s map of the Big Pryor polygon (Proposed Action, Appendix D, page 50) shows many substantially noticeable red circles. These are identified in the legend as “*Abandoned Mines*.” On page 46 CGNF reports “*74 recorded abandoned mine lands*.” Presumably these refer to the same features. It is not clear what “abandoned mine lands” means. These are *not* abandoned mines - except for a very few in the far southeast corner of the polygon. The overwhelming majority of these are small bulldozer scars made when mineral claim owners were required by law to periodically scar the land to maintain their claims. Typically they are approximately 10 ft by 20 ft. Each red circle on the map has a diameter of about 660 ft and covers an area of more than 7 acres - more than 1,600 times the size of each of the scars. That is each red circle is 22 times the area of the *total* of *all* these scars on Big Pryor Mountain. The 74 flaming red circles give a very misleading impression of the impact of the old prospecting scars (not “mines”) on the landscape. Most of these scars are revegetating, are not substantially noticeable, and do not degrade the wilderness character. What can still be seen of them might be considered historical artifacts from the uranium prospecting era in the Pryors more than 60 years ago. They should not in any way be a reason for not designating RWAs in the Pryors.
- Under the category of “*ecological, geological, or other features of scientific, educational, scenic, or historical value*” both the narrative and table appropriately emphasize the many important cultural features (although “where they saw the rope” is mistakenly listed on page 46. It is on East Pryor, not Big Pryor.) But other outstanding ecological, geological, or other features of scientific, educational, scenic, or historical value are puzzlingly neglected. “29,551 acres mapped as Distinct [scenic]” does not do justice to the many scenic canyons, views and wildflowers etc. There is no mention of the Audubon Important Bird Area and why it is important, the Montana Native Plant Society Important Plant Area including both Species of Concern (SOC) and remarkable botanical diversity. All of these are valuable for both scientific research and education. RWA designation will help preserve these values.
- In the narrative CGNF writes, “*In general the area would be difficult to manage as wilderness because of the number of roads and motorized trails throughout, ongoing traditional uses and the need for ongoing administrative needs for grazing allotment infrastructure maintenance and the ongoing need to treat weeds and administer grazing permittees*.” This seems to be a considerable overstatement. There are no roads within polygon 9 (they are motorized trails), and only one motorized trail within the RWAs we propose. Grazing infrastructure is a management responsibilities in many RWAs and designated Wilderness Areas. It appears CGNF is trying to talk itself out of designating landscapes remarkably qualifying for RWA status.
- We appreciate that CGNF has recognized the Bear Canyon and Big Pryor Plateau areas as “*notably less developed and provide for non-motorized recreation*.” However this is unduly brief and considerably understated. As shown on CGNF’s map (page 50) these two areas are negligibly developed (except very close to the motorized routes that define their boundaries.) And these areas provide numerous outstanding opportunities for solitude, and primitive and unconfined recreation. The analysis in Appendix D is of the whole

⁶ “Pryors Coalition – Supplementary Wilderness Inventory Comments” August 25, 2017 - reproduced in Appendix VI of this letter.

⁷ CGNF did not retract the flawed GIS model used in their “range infrastructure protocol.” The area was added to the WI “*following policy to be broad and inclusive at Step 1*” (Process Paper: Wilderness Inventory Report, November 2017, page 10.) But the area was dropped again in step 2 of the evaluation process.

⁸ Sent to CGNF September 25, 2017 and included as Appendix VII of this letter. CGNF has the photo data taken during this study.

42,000 acre polygon. It may be true that it would be challenging to managing the entire area as a RWA. Now that the Bear Canyon and Big Pryor areas have been identified as “*notably less developed*” they need to be evaluated individually. RWA management challenges for these two areas will be far fewer. The Bear Canyon area especially should be an easy decision to designate as an RWA.

D. Punch Bowl Canyon and Dryhead Canyon, Polygon Number: PRYORS 10 (page 51):

- In the narrative CGNF reports that this “*area is generally natural appearing*” and acknowledge “*opportunities for primitive recreations and solitude once away from open motorized routes*” These understatement more than satisfy criteria a. and b. for wilderness designation.
- CGNF does not mention that this area has a short (~ 1 ¼ mile) boundary with BLM land designated as Land with Wilderness Character (LWC).
- CGNF reports no occurrences of “federally listed T & E species in the polygon.” But a population of *Sullivantia hapemanii*, is known in Dryhead Canyon⁹ within this area. This species is not identified as a Species of Conservation Concern (SCC) for this planning process in CGNF document fseprd567875, but probably should be.¹⁰
- We are pleased to see that CGNF is paying serious attention to the cultural importance of the Pryors to native Americans. But as elsewhere in the Pryors the Appendix D evaluation for polygon 10 seems very limited in its acknowledgment of “*ecological, geological, or other features of scientific, educational, scenic, or historical value*” in the area. These outstanding values also contribute to the argument in favor of RWA designation of the Punch Bowl / Dryhead Canyon area.
- In the Proposed Action CGNF proposes a 4,875 acre “Backcountry Area” in polygon 10. This is a mere 125 acres short of qualifying for RWA designation – within measurement uncertainty. But direction in the Planning Handbook (section 73) says that when human-made features like roads are used as boundaries for RWAs, “*Setbacks should be used only where necessary for future maintenance of the human-made feature.*” Following this directive could easily add a thousand acres to the designated area. (“Backcountry Areas” are not mentioned in the Planning Handbook because they are a new terminology created by CGNF. But the same reasons for the “no setbacks” restriction should apply equally to Backcountry Areas.) (Additional area should be added on the SW “corner.”)
- This “Backcountry Area” should be expanded by eliminating the boundary setback and designated an RWA.
- CGNF rejects management of the entire polygon as an RWA because it would be a “challenge.” A 6,000 acre Punch Bowl only RWA would not have this “challenge.” Any “external influence” from the communications site is not a problem.

E. Polygon Number: PRYORS 96 (page 56):

- CGNF promptly dismisses this area from consideration as RWA because it is in the horse range, and because it is a “*very small area.*” It is claimed that, “*Visitor use of adjacent road limits opportunities for solitude and manageability as wilderness.*” These arguments might¹¹ make sense if the FS was the only federal land manager in the Pryors. But if the Pryors are seen as a whole and unified landscape, with coordinated FS & BLM management and consistent policies, then these arguments fail. This 1,000 acre FS area shares an arbitrary and invisible 3.8 mile boundary with a BLM designated WSA. Unified, it is *not* a “*very small area.*” It is part of a large wild area with abundant opportunity for solitude.
- Neither CGNF’s text nor maps in Appendix D indicate that the BLM land east and south of polygon 96 is a Wilderness Study Area.¹² If polygon 96 is not designated as RWA it then becomes a very small area managed

⁹ Report by Hartman and Nelson of the Rocky Mountain Herbarium at the University of Wyoming. Provided to us by Kim Reid, USFS. They report another population on the north edge of the Big Pryor polygon, PRYORS_9.

¹⁰ This species is listed as a Species of Concern at www.fieldguide.mt.gov/speciesDetail.aspx?elcode=PDSAX0X010 “Wyoming *Sullivantia* is regional endemic known in Montana only from a few, clustered locations. It grows in small, fragile aquatic habitats that may be vulnerable to hydrologic changes from water development or diversion, or trampling.”

¹¹ But as noted elsewhere in this letter FS policy is that there be no setback of RWA boundaries from roads and solitude is not required on every acre of an RWA.

¹² CGNF’s Appendix D, page 57, does mention that the BLM land east of polygon 96 is a “study area” (without the word wilderness and without capital letters).

inconsistently with the adjacent BLM land. This will complicate coordinated interagency management and confuse the public. What difference between the FS and BLM land on opposite sides of this invisible boundary justifies recommending Wilderness on one side but not on the other?

- CGNF reports that, “This area appears generally modified from wild horse grazing.” This is not accurate. The horse range is in fact modified by horse grazing, but the repeated use of the words *appear* and *apparent* in the Planning Handbook¹³ (5 times in a brief segment), and the language “*substantially noticeable*” clearly indicate that the naturalness criteria for RWAs is about the subjective impression of naturalness to a lay observer rather than a data driven analysis by ecologists.
- CGNF does not address in the Proposed Action the fact that the Planning Handbook says that areas less than 5,000 acres can be designated as RWA when “*contiguous to an existing wilderness, primitive areas, administratively recommended wilderness, or wilderness inventory of other Federal ownership*” when “*...its preservation and use in an unimpaired condition practicable.*”¹⁴ Why is this guidance not being followed?
- CGNF reports no occurrences of “federally listed T & E species in the polygon.” But there is a population of *Shoshonea pulvinata* within this area. This species is identified as a Species of Conservation Concern (SCC) for this planning process in CGNF document fseprd567875.

6. Boundary Setbacks:

A. Island Ranges must be considered on a different scale:

The “Backcountry Areas” (which we strongly request become RWAs) apparently were drafted using an approximately ¼ mile setback from motorized routes. (See maps in Appendix II of this letter.) This seems to be an arbitrary and unwarranted choice. Wildernesses (WSAs and RWAs) in the larger CGNF mountain ranges are typically 100,000 acres or larger. In small island ranges like the Pryors potential wilderness are generally in the 10,000 acre or smaller scale. A ¼ mile setback from roads has very different impact in the two situations.

Consider square wild areas of very different scales each bounded on all sides by motorized routes with a ¼ mile setback. In this simple model it is easy to compute the percentage of each area excluded by a ¼ mile setback.

Approx. Area	Square	Area	Perimeter	Area of ¼ mile setback and % of total area
~ 6,000 acres	3 x 3 miles	9 sq. mi. = 5,760 acres	12 miles	2.75 sq. mi. = 30%
~ 10,000 acres	4 x 4 miles	16 sq. mi. = 10,240 acres	16 miles	3.75 sq. mi. = 23%
~ 100,000 acres	13 x 13 miles	169 sq. mi. = 108,160 acres	52 miles	12.75 sq. mi. = 7%

This table demonstrates that the setback has a relatively negligible impact on the larger areas in large mountain ranges, but can easily exclude one-quarter to one third of the wild area in small island ranges.

While it is true that the ¼ mile closest to the motorized route may provide limited solitude, the Planning Handbook clearly states that the area need not provide solitude on every acre.¹⁵ Also note that most of the routes determining boundaries of these designated areas are motorized trails, not roads which would have greater impact on solitude.

B. Consistency with Neighboring BLM:

For BLM Wilderness Study Areas in the Pryors, “*The WSAs go to the edge of the surface disturbance of the roadway. There is no setback (Wilderness Areas have 30, 100 or 300 feet setbacks, depending on type of road)*”¹⁶ The ¼ mile CGNF setback from is quite inconsistent with this BLM policy. This BLM policy is in fact consistent with the FS direction in the Planning Handbook.

¹³ Planning Handbook 72.1

¹⁴ Planning Handbook, 71.21 and 72.1

¹⁵ “*The area does not have to possess outstanding opportunities for both elements [solitude or for a primitive and unconfined type of recreation], nor does it need to have outstanding opportunities on every acre.*” Planning Handbook 72.1 (2)

¹⁶ Tim Finger, BLM Outdoor Recreation Planner, email, June 21, 2013. Also, “*The [WSA] boundary is determined by where the edge of the disturbance of the road was at the time of the WSA designation.*” Jenny Alexander, BLM Outdoor Recreation Planner, email, January 11, 2018.

C. Forest Service policy for RWA Boundaries:

According to the 2015 Planning Handbook, when features like roads are used for the boundary, “*Setbacks should be used only where necessary for future maintenance of the human-made feature.*”¹⁷ The intent is that RWA boundaries be easily locatable on maps and on the ground. (The same reasoning should apply to BCA boundaries.)

7. 2012 Forest Planning Rule § 219.2 (b)(2) & § 219.15 (e):

A. Solution to a Dilemma:

For more than a decade some of us have been proposing designation of several motor-free areas in the Pryors. This was considered a Management Planning level issue outside the scope of the Travel Planning process completed in 2008. As a result several motorized routes were authorized within areas suggested as motor-free areas. Now in the Management Planning process the Evaluation in Appendix D often uses the currently authorized roads and motorized trails as reasons precluding motor-free RWA designation. e.g. “*Most of the area provides for low levels of solitude because of the existing roads and motorized trails...*” and “*In general the area would be difficult to manage as wilderness because of the number of roads and motorized trails throughout...*” (Appendix D, page 45) The existing Travel Plan is effectively constraining the revision of the Management Plan and excluding options - despite the fact that Travel Plans and other site specific action plans are subservient to the Management Plan. It seems “we can’t get there from here” – a catch 22.

But in fact there is a clear solution to this circular dilemma. The drafters of the 2012 Planning Rule had the foresight to see this problem. They understood that a new or revised Management Plan, after many years, might have some different visions for the future and provide different direction for management – direction that might be in conflict with previously existing resource plans for forest projects or activities based on an old Management Plan. They provided a clear escape route from this circular dilemma. They included the following language in the Planning Rule (Underline emphasis added.):

§ 219.15 Project and activity consistency with the plan.

“(e) Consistency of resource plans within the planning area with the land management plan. Any resource plans (for example, travel management plans) developed by the Forest Service that apply to the resources or land areas within the planning area must be consistent with the plan components. Resource plans developed prior to plan decision must be evaluated for consistency with the plan and amended if necessary.” (page 21269)

§ 219.2 Levels of planning and responsible officials.

(b)(2) ...

“Projects and activities must be consistent with the plan (§219.15). A plan does not regulate uses by the public, but a project or activity decision that regulates a use by the public under 36 CFR Part 261, Subpart B, may be made contemporaneously with the approval of a plan, plan amendment, or plan revision.” (page 21261)

Clearly this means that although the revised Forest Plan itself can not directly modify preexisting resource plans, new decisions regulating public activity can be made simultaneously with the Management Plan approval. Thus the existing travel regulations (and other resource plans) are not valid reasons to eliminate options in the revised Management Plan.¹⁸

We do not suggest that this § 219.2 procedure be used indiscriminately. But there are a few situations where it would be highly desirable and which are discussed below.

B. Big Pryor Plateau:

A quick look at the map (Appendix II of this letter) which overlays CGNF’s map of the “North Pryor Backcountry Area” on CGNF’s Appendix D (page 50) map of the Pryors_9 polygon, shows a very undesirable “wormhole” into the heart of the designated area. This both destroys the integrity of the area, and creates management problems with the long and convoluted boundary. This problem could be greatly mitigated by

¹⁷ Planning Handbook, section 73-Analysis

¹⁸ A PowerPoint slide at the 1/23/2018 FS meeting in Red Lodge (and probably other District meetings) included the statement, “All subsequent NEW proposals and projects must comply with the approved Plan” (Emphasis in the original.) This statement is explicitly true, but implicitly false. §219.15 clearly indicates that OLD proposals and projects must also comply with the approved Plan.

converting route #2095A, which creates the “wormhole,” into a public non-motorized route. This should be done whether the area is designated as a “Backcountry Area” or an RWA. #2095A is currently a *very* lightly used route – especially the farther back one goes.

Suitability statements 02 and 03 for RWAs (FW-SUIT_RWA, Proposed Action, page 93) would protect the grazing permittee from “harm.”

This would also have the benefit of increasing secure wildlife habitat for sage grouse, deer, hopefully elk and more. It would also greatly reduce the probability of spotted knapweed and other noxious weeds being introduced into this area.

Another concern with the “North Pryor Backcountry Area,” which we strongly believe would much better be designated as an RWA, is the “new” Big Pryor Trail, Trail 30. We support this trail, but CGNF’s narrative and map in Appendix D is the first place it has been publicly “announced” and identified as a mechanized trail for bicycles, a nonconforming use in the Wilderness Act, and could reduce potential for eligibility for inclusion in the NWPS. In addition to our belief that Trail 30, the old “Ranger’s Trail,” should be restricted to foot and horse travel – its historical use. A mechanized trail through the area seriously threatens its designation as an RWA and threatens equestrian use.

This “Ranger’s Trail” appears nowhere in the 2008 Travel Plan FEIS so an amendment will presumably be needed to add it to the system. This can be done according to the § 219.2 (b)(2) authority, but restricting it to foot and horse travel. We note that there are an abundance of routes in the Pryors suitable for mountain bikes – all the many 4WD trails. Some of us have enjoyed biking those routes.

C. Punch Bowl & Dryhead Canyons:

The § 219.2 (b)(2) authority could be used to convert part of route 2144 into a non-motorized route removing an obstacle to including the Dryhead Canyon area in a RWA in this very special area. This would also significantly increase secure wildlife habitat for elk, deer and more.

D. Lost Water & Crooked Creek Canyons:

A bit of pruning of the Commissary Ridge motorized route (#2092) and Island Ridge (#2093) would allow an exciting expansion of the Lost Water Canyon RWA to include more of Crooked Creek Canyon and the ridge ends between.

All of this can be accomplished with judicious use of the § 219.2 (b)(2) authority.

8. Ecological Diversity and Integrity – Planning Rule § 219.9 (a):

A. A New Planning Requirement:

The FS has long experience addressing issues involving specific threatened and endangered species and species of conservation concern (SCC) in planning processes. Section § 219.9 (b) in the Planning Rule addresses this topic. But section § 219.9 (a) adds new requirements to “*maintain the diversity of plant and animal communities and support the persistence of most native species.*” “*The plan must include plan components, including standards or guidelines, to maintain or restore the diversity of ecosystems and habitat types throughout the plan area.*” (Emphasis added.) There is a nearly identical statement about “*ecological integrity.*” This new emphasis on ecological integrity and diversity is critical to preserving the unusual diversity, and uncommon plant communities in the small Pryor Mountain island range.¹⁹

CGNF regularly refers to section § 219.9 as a “*coarse-filter/fine-filter approach.*” We find this metaphor inaccurate and misleading. The implication seems to be that the ecosystem part (§ 219.9 (a), the “coarse-filter”) begins the job and the species specific part (§ 219.9 (b), the “fine-filter”) finishes the job; That if the fine-filter has been used, there is no need for the coarse-filter. (Exactly what does “filter” mean in this metaphor?) But there are two different “jobs”:

- a. Preserving natural ecosystems (including dozens if not hundreds of species *and* all the intricate and beautiful interconnections among them), and

¹⁹ This section, §219.9 (a), explicitly refers to and quotes section §219.8 (a) “*Ecological Sustainability*” which elaborates further on these requirements. §219.8 (a) (1) requires “*taking into account... (ii) Contributions of the plan area to ecological conditions within the broader landscape influenced by the plan area.*” (Underline added.) Thus CGNF management directives must consider impacts on species and ecological communities that may not be on CGNF land, but are on adjacent BLM land – another reason for management consistency across the boundary.

b. Preserving a number of specific species of concern (often large, charismatic and hunted species).

This “coarse-filter/fine-filter” language does not appear in the Planning Rule. It would be better to stick with the language in the Planning Rule including calling it, “*a complementary ecosystem and species-specific approach...*” which implies independent importance of both goals.

B. Where are the Plan Components addressing Ecological Diversity and Integrity?

We searched the Proposed Action for meaningful standards or guidelines aimed at maintaining or restoring ecological diversity and integrity of plants and wildlife as required by § 219.9 (a). Unfortunately our search was unsuccessful.

We did not expect these ecosystem plan components to be in the species-specific sections about lynx, and sage grouse etc. So we looked in the general vegetation and wildlife sections. The extensive “**Forested Vegetation (VEGF)**” section is almost entirely about a few species of trees – not the forest ecosystem. The “**Other Vegetation (VEGNF)**” section for non-forested vegetation looked promising. It began with DFCs in the form of detailed description of the plant composition of several types of ecosystems. But this non-forested vegetation section had only species-specific guidelines and only for “aspen and green ash draws” It directed us to “*See plan components for shrubland habitats for greater sage-grouse habitat needs and big game winter ranges (see ‘Wildlife’ section).*” [What about grasslands? What about ecological integrity and diversity rather than species-specific sage grouse and big game?]

As directed we turned to the “**Wildlife (WL)**” section where the second paragraph (page 46) includes, “*...most of the coarse-filter ... plan components that benefit wildlife are found in the ‘Terrestrial Vegetation’ section...*” We had just found no ecosystem plan components there.

Checking the “**Greater sage-grouse (WLSG)**” section as directed, we find the standards and guidelines are all species-specific for sage grouse and may help that particular habitat support grouse, but none focus on the full ecological integrity and diversity of that habitat.

Again as directed we checked the “**General Wildlife (WLGEN)**” section and found eleven standards. Most are species-specific about “big game” and “native ungulate” winter range and hunting seasons or bat hibernacula. (A couple are about “active raptor nests or wind energy developments.) Again nothing here is focused on general ecological integrity and diversity *throughout the plan area*.

§ 219.9 (a) explicitly applies “*...throughout the plan area.*” It is not reasonable to presume that species-specific, and in the case of winter range, time-specific guidelines, to satisfy § 219.9 (a) requirements. They will not cover for ecosystem standards and guidelines to satisfy § 219.9 (a). That is why the rule requires the “complementary approach” with both parts (a) and (b).

The introduction to the “**General Wildlife (WLGEN)**” includes, “*Most populations of wildlife species are expected to be maintained through application of coarse-filter plan components designed to maintain the key ecological characteristics that provide the habitat upon which those animal species depend.*” This might be reasonable if there were such standards and guidelines “*to maintain or restore the diversity of ecosystems and habitat types throughout the plan area.*” They are not in the wildlife section, and they were not in the vegetation section where we began our search. Where are the required plan components addressing Planning Rule §219.9 (a) ?

The “**Wildlife Species at Risk**” section also defers to the vegetation section, “*Most habitat and other life cycle requirements for at-risk wildlife species are addressed by coarse-filter plan components that deal with key ecological characteristics such as direction for vegetation management...*” But the VEGNF guidelines only addressed aspen and green ash draws.

The ecosystem approach (§ 219.9 (a)) includes all species - flora and fauna - mega to micro - and all their interrelationships. They do not fit under (VEGF), (VEGNF), or (WL) etc. Probably there needs to be an additional section in Chapter 2. for Ecosystem Integrity and Diversity – maybe (EID) – with plan components addressing ecosystem integrity and diversity.

Nothing in the Monitoring Plan or Monitoring Table in the Proposed Action addressed the general topic of ecological integrity and diversity “*throughout the plan area.*” This critical topic needs to be added. The Pryors and perhaps other Geographic Areas need area-specific ecological approach plan components. Monitoring questions,

indicators and data sources need to be drafted and identified. Monitoring of the specific species and ecological subsystems included in the monitoring plan do not satisfy the requirements of Planning Rule § 219.9 (a).

9. Ecological Plan Components Needed for the Pryor Mountain Geographical Area:

The “Ecological Characteristics” section of the Proposed Action on the Pryor Mountains Geographic Area (page 117) gives hints of the ecological importance of this GA. The first four paragraphs of the “Ecological Characteristics” section are excerpts from CGNF’s **Nonforested Terrestrial Ecosystems Assessment Report**. That report, and the original sources it is based on, give a substantially more powerful view of the botanical importance of the Pryors GA.²⁰

Excerpts from CGNF’s Nonforested Terrestrial Ecosystems Assessment Report:

“This area [the Pryors] has been found to have high levels of endemism where plant species that are globally rare are found only in the Pryor Mountains and Bighorn Basin area.” “...areas of high endemism are important targets for conservation to prevent future extinctions.”

“...more than 30 species with affinities to cold desert floras occur at the northern limit of their range...”

“Peripheral populations of species and their habitats are often important areas for genetic divergence and speciation. Populations occurring on the edge of a species' range ... more genetically and ecologically divergent than central populations. ... impart evolutionary potential and local ecological significance, thus heightening their conservation value.”

“More than 25 plant communities ... occur within about 5,000 feet of vertical relief in the Pryor Mountains.”

“The South Pryor Mountains important plant area encompasses 19 vascular plant species of concern and one lichen species of concern[and] five globally rare species endemic to the north end of the Bighorn Basin in Montana and Wyoming.”

“Important plant area [IPA] recognition is a means of making land managers aware of the special value of the land they manage.”

Excerpts from the Montana Native Plant Society IPA Nomination:

“South Pryor Mountains IPA supports a large number of plants considered rare in Montana.”

“For all SOC’s included in the proposed IPA boundary, the IPA encompasses the entire known range or a significant portion of the known populations of these species within Montana.”

“Three of these plant communities deserve mention because they are widespread in the proposed IPA and thought to be globally rare.” “These communities are reported to be endemic to the Pryor Mountain Desert and adjacent Northern Bighorn Basin.”

These quoted fragments (More complete text is reproduced in Appendix III.) demonstrate that the Pryor Mountain botanical landscape is outstandingly unique. There is nothing else like it in Montana – and beyond. There is certainly nothing like it anywhere else in CGNF. This is the condition we desire to maintain in the Pryors. Yet the Proposed Action in no way addresses this in its management direction. The forestwide desired conditions for non-forested vegetation give broad generic descriptions of Xeric Grasslands etc. They do not, and because they are forestwide could not, describe the desired conditions specific to the Pryor Mountain GA as in the above quotations.

If these special botanical characteristics of the Pryors vanished, the area might still satisfy the generic forestwide desired future conditions for Xeric Grasslands etc. Plan components designed to maintain or restore those generic

²⁰ Ecological Integrity and Diversity plan components are needed for both flora and fauna of the Pryors. The Pryors fauna get considerably less attention than flora in CGNF’s “Ecological Characteristics” section of the Proposed Action, and CGNF’s Assessment Reports. Fauna includes everything from birds to butterflies and more. The 2012 BioBlitz identified 476 species of fauna in 24 hours – including 33 species of butterflies and 83 species of birds. Montana Natural Heritage Program lists 208 species of birds in the Pryor Mountains area including 31 Species of Special Concern. All but one species of bat ever found in MT have been documented within the Pryor Mountain ecosystem - a unique or nearly unique assemblage in Montana.

forestwide desired future conditions would be of no help. Clearly responsible management of the Pryor Mountain GA depends on Pryors-specific ecosystem plan components (DFCs to monitoring plans).²¹

Please see Appendix IV for further comments on the need for Pryors-specific ecological integrity and diversity plan components, and examples of appropriate an desired future condition and monitoring plan.

10. Pryor Mountains Geographic Area (page 117-):

Under Social and Economic Characteristics the Proposed Action states that “*Road access is limited in the Pryor Mountains*” And under Vision for the Pryor Mountains GA it refers to “*limited road access to high elevation areas.*” This may be true for “roads,” but is quite misleading. Motorized access for all off-highway vehicles is extensive on 124 miles of roads and “trails.” “*Off-Highway vehicle – Any motor vehicle designed for or capable of cross-country travel, including but not limited to Pickups, ATVs, and Motorcycles.*” (from MVUM)

The Proposed Action states correctly that “*many researchers and educators in Earth Sciences have recognized*” the scientific value of the Pryors. “Biological Sciences,” or “Ecological Sciences” should be added to this sentence.

We request two additional Pryors-specific Desired Conditions:

- * The road and trail system provides balanced opportunities for motorized and motor-free travel. Currently the Pryors have negligible designated (signed etc.) non-motorized routes (1.67 miles + ~ 4 miles in process), no non-mechanized routes (0 miles), but an abundance of authorized motorized routes (124 miles).
- * The natural ecological integrity and diversity are preserved. (See above and Appendix IV for more detail.)

11. Pryor Mountain Wild Horse Territory

DC 01: “*Healthy rangelands support healthy wild horses.*” (page 121) We do not disagree, but this is too simplistic for a Desired Condition. What does “healthy rangelands” mean? BLM reports that, “... 36 CFR 222.21 states that wild horses within USFS territories be administered to ‘maintain a thriving ecological balance...’”²² BLM then repeatedly refers “*maintain[ing] a thriving natural ecological balance.*” This language should be added to DC 01.

12. Pryors Backcountry Areas (PBCA) (page 122-):

The Introduction should include mention of spectacular scenery, expansive views and the Important Plant and Bird Areas.

These areas should be designated RWAs instead. (See above.)

Standard 02: “*New trails and recreation facilities shall not be constructed.*” (page 122) This is problematic. Currently the Pryors have negligible designated (signed etc.) non-motorized routes (1.67 miles + ~ 4 miles in process²³), no non-mechanized routes (0 miles), but an abundance of authorized motorized routes (124 miles). A balance is needed and should be stated as a desired condition for the Pryors GA.

With standard 02 the only way to achieve a balance of designated motor-free and motorized routes would be to convert some motorized routes to motor-free. For example, a number of popular hiking routes²⁴ in the Bear Canyon area could not be designated and maintained. The absence of designated (mechanized-free) routes for equestrians is particularly problematic. The Pryors landscape provides great riding opportunities. But responsible equestrians are well aware that groups wandering off-trail can impact the landscape – especially with repeated trips. Established trails help confine the impact to the path. The FS can mitigate this problem by designating some appropriate routes for equestrians and hikers. CGNF’s proposed Standard 02 for “Backcountry Areas” would preclude this possibility.

We note that standards for RWAs do permit new trails. Standard 07 “*New recreation developments shall not be allowed, aside from new or replacement trail infrastructure.*” (page 93) Of course this would be done only with careful consideration and NEPA analysis. We certainly do not propose rampant trail building in the Pryors, but

²¹ The unique botanical ecosystems of the Pryors exist on both sides of the invisible FS/BLM boundary. But management of one side affects the other side. The ecosystems are interconnected. Cooperative management requires that policies on each side take into consideration ecosystems on the other side.

²² Pryor Mountain Wild Horse Range Bait/Water Trapping Gather Environmental Assessment DOI-BLM-MT-0010-2015-0018-EA, page 6. This is in many other BLM documents.

²³ The Proposed Action identifies these as “mechanized” routes. Given the abundance of 4WD routes available for mountain bikes and the total absence of non-mechanized routes, we ask that they be designated as non-mechanized routes for hikers and equestrians. The 4 mile route currently in process is not yet in the Travel Plan.

²⁴ CGNF staff may be unaware of the popularity of this area since CGNF provides no information to the public about non-motorized opportunities in the Pryors.

CGNF's concern that a few more quiet trails will damage the wild experience seems a double standard given the large number of authorized motorized routes and the extreme scarcity of authorized motor-free routes. Why?

13. Wild and Scenic Rivers:

We are pleased that CGNF has found several creeks in the Pryors to be eligible for Wild and Scenic designation. (CGNF Appendix E) However several adjustments to CGNF's findings are merited.

A. Crooked Creek:

Crooked Creek certainly merits "wild" rather than "scenic" classification. We find that Crooked Creek far exceeds all criteria for "wild" classification in table E-1, page 11, CGNF Appendix E. In addition we note:

1. In Amendment 2 to the Custer NF 1986 Management Plan Crooked Creek is classified as "wild." This was first signed by Forest Supervisor Curt Bates in 1989, and recertified "wild" by Forest Supervisor Nancy Curriden in 2000.²⁵ What reason does CGNF have for downgrading the classification now?
2. In 2015 BLM classified 1.59 miles of Crooked Creek immediately below the FS segment as both "Eligible" and "Suitable" for WSR designation classified as "wild." BLM's classification was consistent with the existing (Amendment 2) classification by the FS. CGNF's proposed downgrading to "scenic" will cause a management inconsistency across an invisible BLM/FS boundary unsupported by any facts on the ground. What difference is there between Crooked Creek above and below the FS/BLM boundary to justify different classifications?
3. We suspect CGNF is misinterpreting the accessibility criteria for "wild" categorization. BLM writes in Appendix AB of the 2015 Billings Field Office Approved Resource Management Plan: "*The stream ... is inaccessible except with extreme difficulty by foot.*" (AB-25) and "*Although there is public motorized to within ¼ mile of the canyon bottom, visitors must hike through dense brush with no trails to reach the canyon bottom.*" (AB-26) This applies equally to the FS section. In fact for much of the length it would require repelling to access the creek. Using the language in the Accessibility criteria for Wild classification, Crooked Creek is "*inaccessible except by trail*" (if that), and there are "*No roads, railroads, or other provision for vehicular travel within the river area.*" Crooked Creek Road "*leading to the boundary of the area [is] acceptable.*" The contrast with the language in the accessibility criteria for Scenic²⁶ classification is glaring. Most of Crooked Creek is simply inaccessible from most of Crooked Creek Road.²⁷ And Crooked Creek can not be seen from the road – or vice versa.
4. BLM also writes: "*The river segment should be designated as "wild" due to its inclusion in the existing WSA, the quantity, diversity, and quality of the resources present.*" (AB-29) This applies equally to the adjacent FS segment. Approximately 2 miles of Crooked Creek are inside the FS designated Lost Water Canyon RWA.²⁸ What reason is there for a different classification on BLM and CGNF sides of the boundary?

B. Lost Water Creek:

We find it pointless and unnecessary to complicate the designation of Lost Water Creek by changing its classification to Scenic rather than Wild above "*road #2308g, and its spur #2308g2.*" These fading tracks are no longer Forest Service roads – if they ever were. They appear nowhere in the 2008 Travel Management FEIS. They are not system roads or trails and are not designated for any public or administrative use. They are not even in the No Action Alternative under Administrative Use (Travel Plan FEIS Appendix C page C-34). Even if these were (rarely if ever used) administrative routes it seems that would not disqualify this upper Lost Water Creek segment from Wild classification. The complication of the change in classification for this 0.64 mile segment seems completely unnecessary.

²⁵ https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd482860.pdf. It is of interest that Supervisor Bates walked through the bottom of the canyon. It is unlikely that any Supervisor or District Ranger has done so since. That is an indication of the inaccessibility of the creek without even trails.

²⁶ "Accessible in places by road. Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable." (CGNF Appendix E page 11)

²⁷ At www.PryorMountains.org we describe an access route from Crooked Creek Rd. to Crooked Creek. This 1/3 mile hike is described precisely because the creek is inaccessible in most places.

²⁸ We argue elsewhere that several more miles of the creek and canyon should be added to the RWA.

At least some of the #2308g tracks were explicitly closed in the 1986 CNF Management Plan although they had no identifying number then.²⁹

C. Bear Creek:

We appreciate that CGNF now proposes that Bear Creek in the Pryors be classified as Scenic rather than Recreational. But Bear Creek easily meets or exceeds every stated criteria for Wild classification. (CGNF Appendix E, page 11). The language in the criteria for Scenic classification describes a very different and much more developed landscape. This is most apparent in the categories of “Shoreline Development” and “Accessibility.”³⁰

CGNF’s Appendix E, page 13 refers to “*nearby administrative use roads.*” This is a red herring. This apparently refers to route #2016. (There is only one. It should be “road,” not “roads.”³¹) This faint and disappearing two-track parallels Bear Creek for about ½ mile of the 1.75 miles CGNF found eligible for WSR designation.

1. According to the 2008 Travel Plan FEIS this route is not open to public motorized use. Although apparently classified as an “administrative” route, there is no indication that it has any purpose or that it has been used for years.
2. Route #2016 does not provide access to Bear Creek. It does not descend into the canyon and is set back from the rim. The canyon bottom can not be seen from #2016 and vice versa. Access to Bear Creek from #2016 would, at best, require a rough, off-trail scramble down and between cliffs.

So #2016 is a disappearing two-track, not open to the public, with no administrative purpose, and that does not provide access to Bear Creek. That is a very thin reason for a classification of Scenic for the obviously Wild Bear Creek. If #2016 is still considered a problem it can easily be eliminated using Planning Rule § 219.15 (e) and § 219.2 (b)(2).

The only Outstandingly Remarkable Value (ORV) CGNF recognizes for Bear Creek and canyon is for wildlife – specifically as identified by the Audubon Important Bird Area. It is ironic that CGNF first classified Bear Creek as Recreational, and then as Scenic, yet doesn’t recognize either recreational or scenic ORV. This is a big surprise to the many (and increasing number of) people who hike in the area and go home with a camera full of scenic photos.³²

Scenic ORV: It is almost unfair to use the Greater Yellowstone Area as the Region of Comparison for the Pryors. Since the Pryors are so remarkably different from the GYA in terms of geology, ecology and climate, the Pryors are inevitably outstanding and remarkable compared to the GYA. Bear Creek and Canyon are also outstanding in the Pryors as a dramatic limestone canyon with riparian vegetation amid the most arid landscape in Montana. Have you seen the fall colors of the aspen trees in the bottom of Bear Canyon? It is certainly an ORV to see all this with the expansive views to the Beartooths and much of Wyoming. And the wildflowers.....

Recreational ORV: Visitors can hike in truly wild country in late fall, early spring and sometimes in December and January. This is unusual in the GYA. And the area is usually accessible without hard core 4WD vehicles. It is an increasingly popular hiking area much of the year.

²⁹ The only reason these tracks have ID numbers is that in about 2003 a CNF employee, Sue Kvass, was assigned the task of GPSing all the tracks in the Pryors that were visible regardless of their provenance. This required ID numbers for each track segment. These ID numbers and the resulting map do not satisfy any accepted procedure for incorporating the tracks as system routes.

³⁰ Criteria for Scenic classification: “*The presence of small communities or dispersed dwellings or farm structures is acceptable. The presence of grazing, hay production, or row crops is acceptable.*” And “*Accessible in places by road. Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous roads or railroads is acceptable.*” (CGNF Appendix E, page 11) There is nothing remotely like any of this near Bear Creek!

³¹ There are several recovering user created two-track scars in the area with IDs #20161, #20162 and #24921. According to the 2008 Travel Plan FEIS none of these were or are FS system routes either before or after the 2008 decision. Thus they are not authorized for either public or administrative use. #24921 was totally washed out in a big flood in 2011. At that time BLM closed the canyon bottom route ½ mile south of the FS boundary.

³² CGNF staff may be unaware of the popularity of this hiking area since CGNF provides no information to the public about hiking opportunities in the Pryors.

The most disturbing part of CGNF's WSR proposal for Bear Creek is that it does not include the entire creek and canyon – including the west fork. This is apparently because the only ORV CGNF recognizes is related to the Audubon IBA. CGNF arbitrarily ends the WSR at the section line where Montana Audubon arbitrarily drew the boundary of the IBA. The birds don't know where the section line is and easily fly across it. The ecological importance (ORV) of Bear Creek (flora and fauna) does not suddenly end at that section line, but continues on upstream. Recreation and Scenic ORVs continue above this arbitrary point. Remnants of an old cabin are in the creek bottom about a mile above where CGNF ends the WSR. It would be interesting to know more about it. That and the abundant archeological/cultural features in the area should qualify as ORVs.

14. Misc. details from main Proposed Action document:

A. Other Vegetation (VEGNF). (Page 37)

A desired condition for non-forested vegetation is “01 Native plant communities support diverse life forms and age classes, and are self-sustaining relative to site capability and potential, while providing for multiple uses. (Underline added.) Does this mean that “multiple uses” take precedence over the plant communities? What multiple uses are implied here? The plant communities / ecosystems should have priority. Recreation (all types) should be permitted only if diversity and sustainability is assured. Please drop the underlined phrase. No other desired condition or plan component in the Proposed Action has this “disclaimer” appended.

B. Roads and Trails (FW-DC-RT) page 70 –

Desired Condition (DC) 01 includes, “*The transportation system and its use have minimal impacts on resources including...*” followed by a list including T&E species, SOC etc. This is good. But we suggest “ecological integrity and diversity” needs to be added to the list. This would help address Planning Rule section § 219.9 (a).

We suggest two additional DCs for roads and trails:

- * The road and trail system provides balanced opportunities for motorized and motor-free travel in each geographical area. (We note that currently this is very much not the case in the Pryor Mountain GA.)
- * The transportation system is the minimum required to provide needed access and recreation in order to minimize unavoidable impacts on the landscape.

We are concerned with Goal 03: “*The trail system accommodates current and reasonably foreseeable recreational demands...*” There are limits to what the landscape/ecosystem can tolerate – a “carrying capacity.” We can reasonably foresee demands due to population increases and new types of recreation that the land cannot (and CGNF should not) accommodate. This goal overpromises. We strongly endorse the qualification regarding “*ability of the Forest Service to provide sustainable maintenance...*”

C. General Recreation (REC) page 75:

DC 04: “*...roads, and trails ... are adaptable for new recreation demands.*” It is likely that the future will include “new recreation demands” that National Forests should not adapt to.

DC 05: “*Recreation facilities, including trails ... have minimal impacts on resources including ...*” followed by a list including T&E species, etc. This is good. But we suggest “ecological integrity and diversity” needs to be added to the list. This would help address Planning Rule section § 219.9 (a).

D. Recommended Wilderness Areas (RWA) page 92-:

Drones: Suitability 08: “*Recommended wilderness areas are not suitable for recreational and commercial drone launching and landings.*” We are pleased that CGNF is addressing this issue which threatens wildlife security and solitude for quiet recreationists in RWAs, WSAs and RNAs. However we are concerned that this only addresses launching and landing. Low elevation over flights should also be forbidden. We ask that all primitive and semi-primitive non-motorized ROS settings be designated as not suitable for drones.

15. Summary of Main Points:

Develop a Management Plan with policies consistent with BLM and BCNRA based on a unified and holistic vision of and for the Pryor Mountain landscape. Seriously imagine what the Pryors might be in 2050 and beyond – and how this Plan *will* affect that future.

Develop a robust set of Pryors-specific plan components, including desired conditions, standards and guidelines, to *maintain or restore the ecological integrity and diversity of ecosystems and habitat types.* (Planning Rule § 219.9 (a)) Develop components for the Plan Monitoring Program to address this subject.

Designate as Recommended Wilderness Areas those areas proposed as “Backcountry Areas” in the Proposed Action. Landscapes east of the Beartooths merit and need protection equal to that of western Montana landscapes. The fact that they are very different is a reason to designate them – not a reason to overlook them. They will enrich the National Wilderness Preservation System.

Eliminate setbacks for special designated areas (RWAs, “Backcountry Areas”). Setbacks are not consistent with the direction in section 73 of the Planning Handbook, or with BLM’s policy. Large setbacks are particularly inappropriate in small island ranges.

Expand the Lost Water Canyon RWA east to Burnt Timber Rd to include all the Inventoried Roadless area. This will also make management consistent across the southern CGNF border with BLM.

Designate the 1,000 acres east of Burnt Timber Rd as RWA to be consistent with BLM and avoid it being a small piece managed inconsistently with its surroundings.

Convert route 2095A to a non-motorized and non-mechanized route (as allowed by Planning Rule § 219.2 (b)(2)). This will allow elimination of the very convoluted boundary of the special designated area, and greatly help preserve the Big Pryor Plateau – which we consider the crown jewel of this prairie in the sky.

Similarly convert part of #2144 in the Punch Bowl / Dryhead Canyon area to a non-mechanized trail to allow unification of this amazing area and expansion of the RWA. Take similar action with the Island Ridge Rd and the south end of the Commissary Ridge Rd. The RWA can then include more of the spectacular Crooked Creek Canyon. (Again use Planning Rule § 219.2 (b)(2))

Include desired conditions and plan components to provide balanced opportunities for quiet recreation and motorized access in the Pryors. All recreation opportunities must be secondary to preservation of ecological values of the landscape.

The entire Bear Creek should be eligible for WSR designation. Both Bear Creek and Crooked Creek should be categorized as Wild rather than Scenic.

We hope our recommendations above will help CGNF create a better Management Plan to preserve the Pryor Mountain Landscape for its wild inhabitants and for human visitors long into the future.

Sincerely,

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P.O. Box 1290
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Appendix I



www.PryorMountains.org

The Pryors Coalition Vision for the Pryor Mountains

(8/11/2016)

Preamble:

The Pryor Mountains are an irreplaceable ecological, geological, cultural and spiritual landscape owned and managed by the American public and the Crow Tribe. The land is in the slow process of healing from damage by ill-considered past use. The fragile area is threatened by factors including growing unconstrained human use, invasive species, fractured administration and climate change.

The Pryors Coalition encourages managing agencies to embrace the concept of a geographically defined Pryors unit managed under a unified vision, with policies seamless across agency boundaries, and coordinated with the Crow Tribe.

Pryors Coalition Mission:

To conserve, restore and respect the natural and cultural assets of this spectacular landscape, and to pass the Pryors on, undamaged, as a legacy for future generations.

To provide public opportunities for scientific research, educational activities and diverse recreation within the limits the landscape can sustain without damage to natural and cultural assets.

Desired Future Conditions:

For decades into the future:

The ecological integrity of the Pryors will be restored and maintained with all the Pryors' unique biodiversity. This includes the wide diversity of ecological zones, and the biodiversity within each zone.

Cultural (ethnographic) landscapes will be preserved in suitable condition for continued and appropriately enhanced contemporary use by Native Americans and others. This includes preservation of sensitive archeological and historical sites.

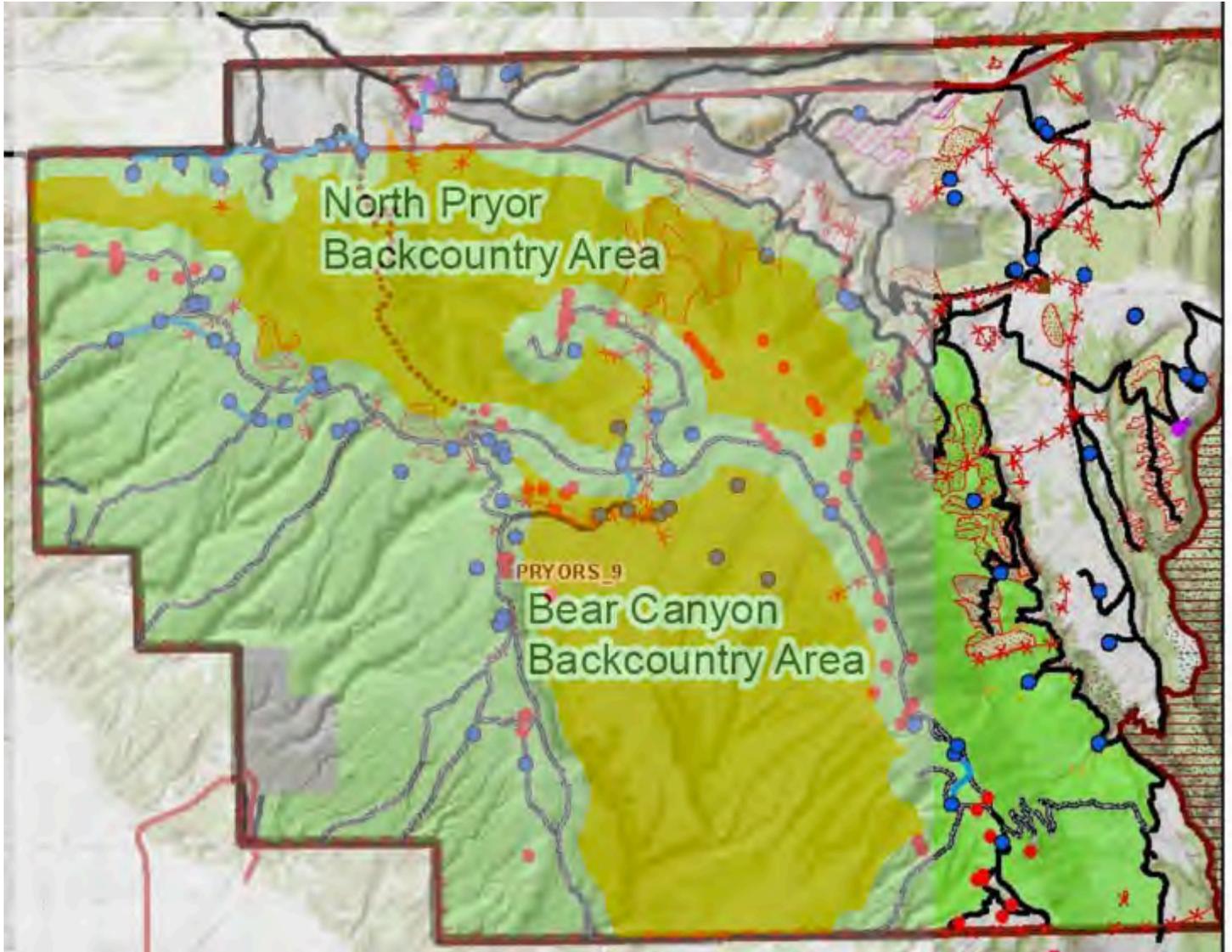
Within carrying capacity of the landscape, opportunities will be provided for diverse public activity including scientific education and research; bird, wildflower and other wildlife watching; photography, scenic touring, hunting, hiking, equestrian use, camping and enjoying solitude.

Designated Wilderness and other wild, undeveloped and motor-free areas will provide for secure wildlife habitat, protection of native flora, quiet recreation, restoration of damaged lands, and solitude. A balance of motorized and non-motorized travel routes will provide needed public access for sometimes conflicting public activities and interests in a manner consistent with the protection of the special resources that make the Pryors unique.

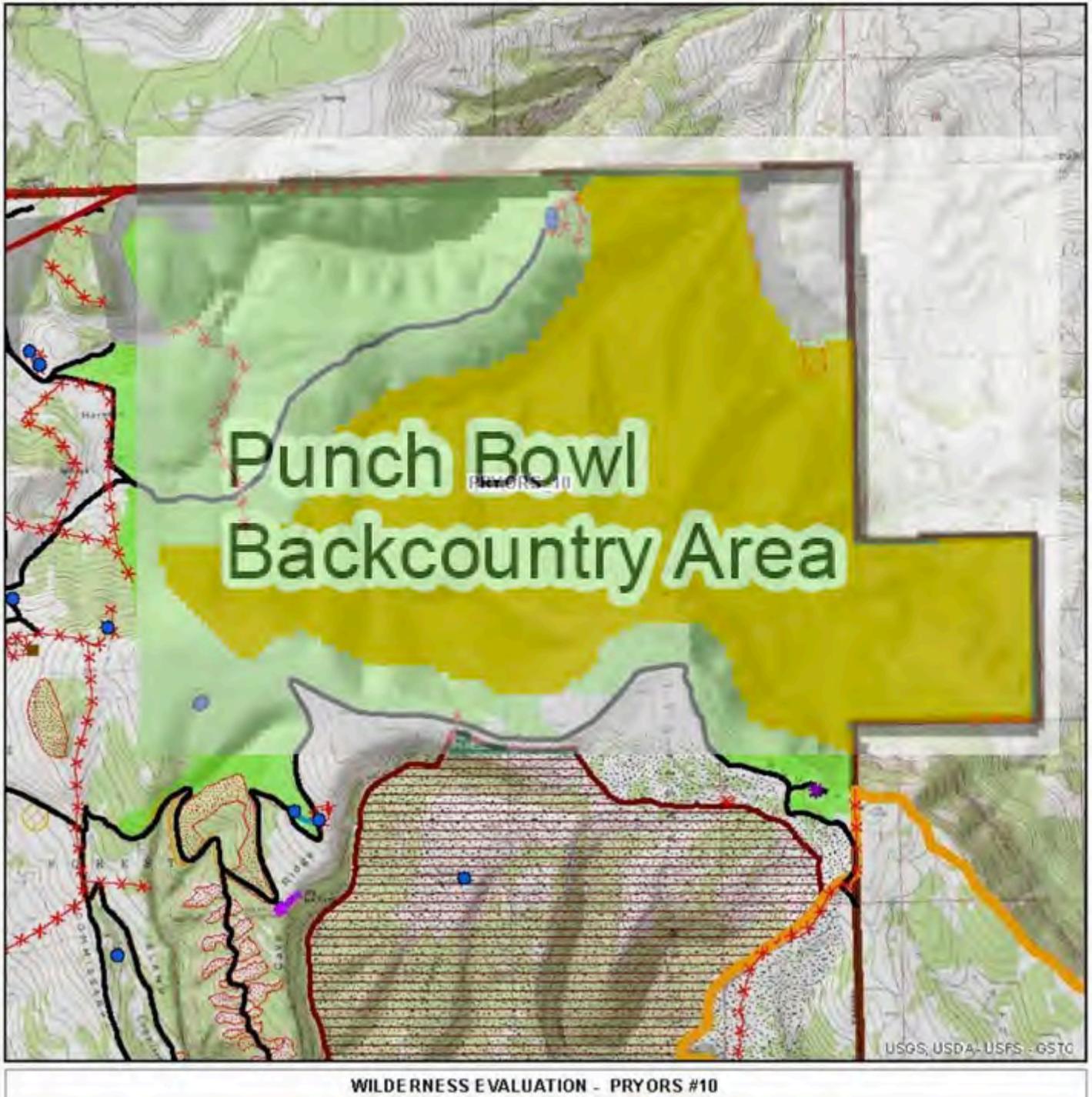
The sustainability of the cultural and natural resources will be the overriding consideration in all management decisions and actions. Developments, including campgrounds and motorized and non-motorized travel routes, will be limited to what can be maintained, monitored and supervised by available management agency staff and budgets.

Appendix II

These two maps overlay (using Photoshop) CGNF's map of "Backcountry Areas" from Appendix B of the Proposed Action over CGNF's maps of polygons 9 (on Big Pryor) and 10 (Punch Bowl area).



Map Scale: The FS boundary follows section lines so the smallest jogs are 1 mile each.



Appendix III

CGNF Assessment, Forest Plan Revision, Final Nonforested Terrestrial Ecosystems Report, Pages 9-11

Pryor Mountains

Pryor Mountain vegetation is largely influenced by sedimentary / limestone parent material. The setting is composed of subalpine meadows and ridges, montane coniferous forests, meadows, foothill grasslands, and semi-desert. The Pryor Mountain area is a place of climatic, physiographic, and geologic diversity resulting in exceptional biological diversity.

This area is where three floristic provinces converge; the Northwestern Great Plains province to the north and east, the Wyoming Basin province to the south, and the Middle Rockies province to the west (Environmental Protection Agency Level III Ecoregions). Each of these provinces possesses a unique climate and resulting floristic expression. Within a relatively short distance of about 20 miles, one can find dramatically different vegetation types from semi-desert to subalpine areas. The vegetation changes from the drier southern portion of Wyoming Basin desert shrubs, the drier eastern portions of the Northwestern Great Plains mid and short grass Pine Savannas to the higher elevations of the Middle Rockies montane settings. McCarthy (1996) compared the flora of the Pryor Mountain area with 11 other floristic surveys from the western United States, which represented the three cited floristic provinces. The Pryor Mountain flora was found to be more diverse than comparative floras.

Because of this unique convergence of three floristic provinces, the Pryor Mountains are considered a “botanical hotspot”, rich in species and community diversity. This area has been found to have high levels of endemism where plant species³³ (eight) that are globally rare are found only in the Pryor Mountains and Bighorn Basin area. Although none of these species are currently considered threatened, areas of high endemism are important targets for conservation to prevent future extinctions (Lesica, 2012b).

The Pryor Mountains contain the eastern most extent of Douglas-fir in Montana and the northern most extent of Utah Juniper (predominantly known from the Great Basin to the south). Five percent of the Pryor Mountain flora is composed of northern range extension of southern desert species (McCarthy, 1996). Found at the lower elevations of the National Forest portion of the Pryor area, some species of desert plants reach the northern limit of their range. Many plant communities common in the Great Basin deserts reach their northern limit here (DeVelice and Lesica, 1993). Although not all occur on the National Forest System portion of the Pryor area, more than 30 species with affinities to cold desert floras occur at the northern limit of their range at low elevations on the south side of the Pryor Mountains (Lesica, 2012b). Peripheral populations of species and their habitats are often important areas for genetic divergence and speciation. Populations occurring on the edge of a species' range tend to be smaller, more isolated, and more genetically and ecologically divergent than central populations. The combination of these characteristics can impart evolutionary potential and local ecological significance, thus heightening their conservation value (Leppig and White, 2006 and Lesica, 2012b). Conservation of important peripheral populations, despite the commonness of the species elsewhere, are generally considered by state natural heritage programs and the Forest Service when assigning conservation values.

More than 25 plant communities of those identified by Montana Natural Heritage Program (MTNHP, 2002) occur within about 5,000 feet of vertical relief in the Pryor Mountains. Local botanists have developed a botanical guide to nine of those plant communities for visitor exposure to understanding the ecological components and settings (Lyman, Flathers, and Durney).

The adjacent Bureau of Land Management lands are also floristically rich and diverse. Hartman and Nelson's recent floristic survey (2010) observed about 390 species on National Forest System lands and a similar amount on

³³ These endemics are Bighorn Fleabane (*Erigeron allocotus*), Cary's Penstemon (*Penstemon caryi*), Pryor Bladderpod (*Physaria lesicii*), Wyoming Sullivantia (*Sullivantia hapemanii*), Beartooth Goldenweed (*Haplopappus carthamoides subsquarrosa*), Shoshonea (*Shoshonea pulvinata*), Rabbit Buckwheat (*Eriogonum brevicaulum*), and Woolly Prince's-Plume (*Stanleya tomentosa*). The first four of these occur only in the Pryor Mountains of Montana and adjacent northern Bighorns of Wyoming. Beartooth Goldenweed and Shoshonea are found in the foothills of the Pryors and eastern Beartooth-Absaroka uplift, while Rabbit Buckwheat and Woolly Prince's-Plume occur in the Bighorn Basin desert.

adjacent Bureau of Land Management lands. About 25 grass and shrubland habitat types have been described (Stewart and Mueggler, 1988) in the Pryor Mountain area on Bureau of Land Management lands with some of those occurring within National Forest System lands. Seventeen plant lists have been compiled from various botanists studying the Pryor Mountains, McCarthy documented 981 vascular plant species which represent 71 plant families in a 316,000 acre study area (McCarthy, 1996). This is about 40 percent of the plant species that grow in all of Montana (Ostovar, 2012). Even though the national forest portion of the Pryor Mountains is about a quarter of McCarthy's study area, species diversity and richness is still apparent.

Due to the botanically rich area, the Montana Native Plant Society designated close to 115,000 acres of National Forest System lands, Bureau of Land Management lands, and other lands as an important plant area in the southern Pryor Mountain area (Hanna and Lesica, 2012).³⁴ National Forest System lands constitutes about 40 percent of the important plant area. Important plant area recognition is a means of making land managers aware of the special value of the land they manage. The important plant area program has no regulatory authority. The goal of the Montana Native Plant Society's Important Plant Areas Program is to identify the most important sites for plant conservation across Montana using consistent criteria. An important plant area supports an exceptional population of one or more globally rare plants or an exceptional assemblage of plants rare or threatened in Montana. The South Pryor Mountains important plant area encompasses 19 vascular plant species of concern³⁵ and one entire known range entire known range entire known range entire known range species of concern with about 40 populations being known to occur on National Forest System portion of the important plant area. Also included are five globally rare species endemic³⁶ to the north end of the Bighorn Basin in Montana and Wyoming. The majority of the rare plants (14) have affinities to the Great Basin flora. They are more common in Wyoming and Utah but reach the northern margin of their range in the South Pryor Mountains area.

In recognition of the unique landscape and species diversity, a "BioBlitz" was conducted in 2012 by 80 researchers, government agency specialists, and interested community naturalists in the southern portion of the Pryor Mountain area. The main objective for the Pryor Mountain BioBlitz was to gather a large amount of data in a short period (generally a minimum of 20 hours each) and help raise awareness about the important ecology of the Pryor Mountains. About 700 species were recorded which included over 315 plant species, 50 spiders species, 25 grasshopper, katydid and cricket species, about 90 pollinators (bees, wasps, butterflies), 83 bird species, and 104 fly species. This is indicative of the diversity found in the area.

The Pryor Mountains are important for scientific research and education. Due to the exceptional diversity in a small area, many researchers and educators in Earth Sciences have recognized its scientific value.

³⁴ Other designations found within the 114,950 acre South Pryor Mountains Important Plant area include East Pryor Mountain Area of Critical Environmental Concern (BLM), Lost Water Canyon Research Natural Area (USFS), Burnt Timber Canyon Wilderness Study Area (BLM), Pryor Mountain Wilderness Study Area (BLM), Pryor Mountain Wild Horse Range (BLM), Bighorn Canyon National Recreation Area (NPS), and Bear Canyon Important Bird Area (Audubon, USFS, BLM).

³⁵ The phrase "species of concern" is used by the Montana Natural Heritage Program to refer to plant species that are rare or threatened to become rare by natural or human impacts and have declining numbers that could result in the loss of the species altogether.

³⁶ A species is labelled "endemic" to an area when it grows only in that area. An endemic species may be either rare or abundant, but it grows naturally only in that area and nowhere else.

Excerpt from Montana Native Plant Society Important Plant Area Nomination:

Justification: The proposed South Pryor Mountains IPA supports a large number of plants considered rare in Montana. The majority of these are plants with affinities to the Great Basin floristic province (14 species). They are more common in Wyoming and Utah but reach the northern margin of their range in the South Pryor Mountains area. For all SOC's included in the proposed IPA boundary, the IPA encompasses the entire known range or a significant portion of the known populations of these species within Montana. Five species of vascular plants are globally rare, being endemic to the north end of the Bighorn Basin of Montana and Wyoming.

The proposed South Pryor Mountains IPA has 5,000 ft of vertical relief and supports ca. 29 distinct plant communities (DeVelice and Lesica 1993). Forests and woodlands dominated by limber pine occur on warm, often exposed, stony-soil slopes at or above 6,500 ft. Douglas-fir forests occur on slopes at 5,000-7,000 ft. Woodlands dominated by Utah juniper occur on shallow, calcareous soil of slopes and ridges at 4,000-6,000 ft. Limber pine-juniper woodlands are found on shallow, calcareous soils of slopes between 4,000 ft and 5,300 ft. Shrublands dominated by black sagebrush and big sagebrush occur at 4,200-6,700 ft on slopes, ridgetops and benches. Toeslopes, terraces and alluvial fans at 3,800 ft to 5,300 ft, often with heavy soil, support shrublands dominated by big sagebrush (*Artemisia tridentata*), bird's-foot sagebrush (*Artemisia pedatifida*), black greasewood (*Sarcobatus vermiculatus*), and Gardner's saltbush (*Atriplex gardneri*). Idaho fescue grasslands occur above 8,000 ft on gentle slopes. Grasslands dominated by bluebunch wheatgrass and cushion plants are common on gravelly soils of lowelevation ridgetops and upper slopes.

Several plant communities in the proposed South Pryor Mountains IPA were considered globally rare at the time of the last vegetation survey in the area (DeVelice and Lesica 1993, Lesica 1994). Three of these plant communities deserve mention because they are widespread in the proposed IPA and thought to be globally rare. These are (1) *Juniperus osteosperma/Cercocarpus ledifolius* woodlands, (2) *Pinus flexilis/Juniperus osteosperma* woodlands, and (3) *Atriplex nuttallii/Artemisia spinescens* shrublands (DeVelice and Lesica 1993, Lesica 1994). These communities are reported to be endemic to the Pryor Mountain Desert and adjacent Northern Bighorn Basin (DeVelice and Lesica 1993). The two woodland communities are common at mid elevations, while the shrubland type was recorded at some of the lowest elevations in the proposed IPA. Further research is needed to determine if other plant communities reported for the area are truly globally rare.

The IPA boundary is drawn to contain the highest concentration and exemplary populations of all the rare species and communities. The southern boundary is the Wyoming state line. The east boundary is the Bighorn River which is also the approximate boundary between the Bighorn Canyon National Recreation Area and the Crow Indian Reservation. The north boundary is the summit ridge of the Pryor Mountains. The west boundary was drawn to include Bear Creek Canyon and all of Crooked Creek Canyon.

APPENDIX IV

Pryors-Specific Plan Components for Ecological Integrity and Diversity

Jennifer Lyman, Botanist, Ph.D.

The USFS needs to identify and map the boundaries of the habitat types of its Pryor landscape as the BLM has done using the two-species approach (e.g. as in Forest Habitat Types of Montana by R.D. Pfister et al., 1977; or Grassland and Shrubland habitat types of Western Montana by W.F. Mueggler and W.L. Stewart, 1978). This step should be included as part of the Management goals, standards, and guidelines for the Pryor Mountains in the Revised Forest Plan.

The following is an example of a desired condition that would help address section 219.9 (a) in the Planning Rule:

Desired Conditions:

- (01) The Pryor Mountains are considered a “botanical hotspot”, rich in native plant species and incredible ecological diversity with more than 400 native plant species, including many found only in this region. The ecological integrity and diversity is maintained and, in some cases, restored with specific attention to distinct plant communities and habitats including the subalpine meadows of Big Pryor, the tall forb meadows of the Punchbowl area, the dry cushion plant meadows of Dry Head Vista and Big Pryor, the wet limestone cliffs and ridges with *Sullivantia hapemannii*, and the dry limestone ridges with *Shosohonea pulvinata*, and others....

For Desired Conditions to be maintained or restored for plant communities, habitats and species of concern it will be important to develop a monitoring plan that is specific enough to detect negative impacts to the plant communities in which these species occur. Otherwise the statements for Desired Conditions for at-risk plant species are just empty words.

Without addressing in a meaningful way the essence of the language expressed in the Planning Rule sections 219.8 and 219.9 regarding *Sustainability*, *Ecosystem Integrity* and *Ecosystem diversity* by actually identifying, describing, and honoring those ecosystems with names, it will be impossible to develop an effective and useful Monitoring Plan.

Without a clear link from Desired Conditions to a focused Monitoring plan, ecological integrity and diversity will be without possibility of measurement over time. There must be baseline surveys from which to determine, during the life of the Management Plan, if habitats are moving toward or away from Desired Conditions.

The Monitoring Plan is an essential piece of the Management Plan because its goal must be to develop and conduct plant community surveys that either establish baseline ecological conditions for particular “biological hotspots,” Important Plant Areas, and species of concert (at-risk plants), or to continue established surveys on at least a five year rotation to determine if habitats are trending to or away from Desired Conditions.

Sample entries in the **Monitoring Table** to address Planning Rule section 219.9 (a):

Topic	Monitoring Question	Reference to Forest Plan Direction	Potential Indicator	Data Sources
Pryor Mountain GA Ecological Diversity	What is the native species and invasive species presence in various habitats?	None in Proposed Action. Pryors-specific direction needs to be added to the Plan	Trends in Shannon-Weaver Diversity Index & Evenness Values for native and invasive species.	Sampling at 8-10 established ecosites every 3 to 5 years.
Pryor Mountain GA Ecological Integrity	What impacts, if any detract from ecological integrity?	None in Proposed Action. Pryors-specific direction needs to be added to the Plan	Record type and severity of impacts at each ecosite sampling area	Photo record and GPS location for impact.

A **Monitoring Plan** should include (among others) the following measures:

Establish GPS located baseline surveys (or continue existing surveys) in 8 to 10 ecologically different ecosites throughout the non-forested areas of the Pryors.³⁷ Sample *Daubenmire* plots every ten meters along alternating sides of 100 meter perpendicular lines across each ecosite to determine species composition, frequency and density. Identify and measure abundance of all non-native and invasive species within plots. Revisit and re-sample these long-term monitoring sites every three to five years to detect trends in the abundance of invasive species and native plant species presence. Compute Shannon-Weaver Diversity Index & Evenness Values. If the sampling shows negative trends (e.g. increasing numbers of invasive species or decreasing numbers of native plants), the Forest Service will institute appropriate management practices.

³⁷ These could be patterned after those established in 2013 by two Rocky Mountain College students at nine sites throughout the Pryors (or the Forest Service could adopt these survey sites). For the sampling design two 100-meter lines across ecosites were established using GPS coordinates. The lines were laid out at right angles across the core of an ecosite (no permanent markers were left in the field). Data from this student work is available as a beginning for FS monitoring.

Appendices V, VI, & VII

These three appendices are included in a separate document.

These three appendices reproduce previous letters sent to CGNF during this Forest Plan revision process. These letters are cited in the main body of this letter commenting on the Proposed Action. The letters are reproduced here for convenience, and to assure they become part of the NEPA record.

Appendix V:

April 13, 2017

The Pryors Coalition: Recommended Wilderness Areas in the Pryors.

In this letter we described and provide rationale for the four Recommended Wildernesses we propose for the Pryors.

We have made a couple minor modifications in our proposed RWAs that are not shown on the map in this letter.

1. The small area north of the power line and south of #2308 (Pryor Mountain Road) near Sage Creek Cabin should be excluded from the Big Pryor RWA.
2. The triangular area north and west of administrative route #2095 should be excluded from the Bear Canyon RWA. The other two sides of this triangle are #2850 (Stockman Trail) and #2091.

Appendix VI:

August 25, 2017

Pryors Coalition – Supplementary Wilderness Inventory Comments.

In this letter we identify the serious methodological flaws in CGNF's GIS Model for Range Improvements.

This CGNF model was cited as justification for exclusion of much of Big Pryor from the draft Wilderness Inventory. Although CGNF later added that area into the WI, it appears from language in the Proposed Action (including Appendix D), oral communication's with CGNF, and CGNF's failure to propose either Big Pryor or Bear Canyon RWAs that CGNF still considers the results of the discredited GIS model to be valid.

Appendix VII:

September 25, 2017

Pryors Coalition Field Study: Noticeability of Range Improvements on Big Pryor Mountain.

This is the report of our Field Study showing that the Big Pryor and Bear Canyon areas appear natural with fences and water developments substantially unnoticeable. Appendix VII includes the text of the report. CGNF was also provided with the extensive photo data.