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R1 Biennial Monitoring Evaluation Report - Public Release letter

Dear Interested Party,

The Bitterroot National Forest has completed a Biennial Monitoring Evaluation Report (BMER) as required by the 2012 Planning Rule at 36 CFR 219.12(d). It evaluates monitoring questions and indicators presented in the Land Resource Management Plan (LRMP) monitoring plan chapter, in relation to management actions carried out in the plan area. Providing timely, accurate monitoring information to the responsible official and the public is a key requirement of the plan monitoring program.

Monitoring results are evaluated in order to make findings on the status or existing conditions of plan components selected for monitoring. Based on the findings, recommendations can be made for changes needed in forest plan direction, such as plan components or other plan content that guide management of resources in the plan area (e.g. forest plan, management activities, monitoring program, or forest assessment). The BMER is designed to provide the necessary information to help the responsible official determine a course of action based on the recommended management adjustments of this BMER. *It is not a decision document.* Future management decisions with appropriate environmental documentation may occur based on the BMER recommendations. The full 2021 biennial monitoring report for the Bitterroot National Forest is available at <https://www.fs.usda.gov/main/bitterroot/landmanagement/planning>. See Table 1 for a summary of the findings and recommendations. Based on the BMER recommendations for changes to the monitoring plan, administrative changes are proposed for public notice and consideration of comments [36 CFR 219.16(c)(6)].

Questions on the BMER findings and recommendations and/or the proposed administrative change may be directed to Cole Mayn, Resources Staff Officer. Comments should be submitted to comments-northern-bitterroot-sula@usda.gov. Please include "BMER" in the subject line. Comments will be accepted until April 4, 2022 (FSH 1909.12, 21.5). Administrative changes are not subject to the objection process (36 CFR 219.50). Upon considerations of comments, the proposed changes to the LRMP Monitoring Plan will be finalized and effective upon signature of the responsible official, Forest Supervisor Matt Anderson, and published to the Bitterroot National Forest webpage: <https://www.fs.usda.gov/main/bitterroot/landmanagement/planning>.

Sincerely,

MATTHEW D. ANDERSON
Forest Supervisor



Table 1. Summary of Recommended Changes to the Bitterroot National Forest Monitoring Plan

MONITORING ITEM	YEAR UPDATED	PLAN IMPLEMENTATION STATUS ¹ <i>Do monitoring results demonstrate intended progress (i.e. maintaining, trending, or advancing) of the associated plan components listed with this monitoring item?</i>	RECOMMENDATION <i>Based on the evaluation of monitoring results, may changes be warranted?</i>	MANAGEMENT ² <i>If a change may be warranted, where may the change be needed?²</i>
<u>MON-WLF-01</u> What is the quantity of old growth?	Collected up to 2015, compiled in 2021	Yes - The general trend based on FIA data suggests that the amount and distribution of old growth is adequate to maintain habitat to support viable wildlife populations and maintain vegetative diversity, which reflects the plan intent. However, it is difficult to directly compare to the old growth standards due to the issues with management area scale and the scale at which FIA data is collected.	No	None
<u>MON-WLF-02</u> Is habitat for elk providing the ecological needs to ensure elk populations remain in desired ranges?	2021	Yes - The number of elk observed now exceeds FWP elk population objectives across the entire Bitterroot drainage and in most hunting districts.	No	None
<u>MON-WLF-03</u> Is habitat for pine marten providing for ecological needs to ensure these populations remain in desired ranges?	Data last collected in 2020, compiled in 2021	Yes – marten distribution and detections have trended upwards	Yes - Improved survey methodologies have become available.	Change in indicator
<u>MON-WLF-04</u> Is habitat for pileated woodpecker providing for ecological needs to ensure these populations remain in desired ranges?	2018	Yes – pileated woodpecker detections have remained relatively stable.	No	None
<u>MON-AQT-01</u>	2020	Yes – Most of the stream habitat metrics are either improving or being maintained. The	The status/trend of stream temperatures on the	The current rate of eliminating aquatic passage barriers is slow (1 or 2 projects

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What is the status and trend of stream habitat?		<p>exception is stream temperature which continues to warm in all types and sizes of streams across the Forest. The factor driving this warming is the warming climate.</p> <p>The status/trend of the PIBO stream habitat metrics suggests that most of the metrics have improved or are being maintained. Statistically significant desired changes have occurred in five metrics: (1) habitat index score, (2) bank stability, (3) large woody debris, (4) percent surface fines < 6 mm, and (5) residual pool depth. Non-significant changes have occurred in four metrics (macroinvertebrates, percent undercut bank, d50 median particle size, and percent pools), and only one metric (bank angle) has shown a statistically significant undesired change. An overriding Forest Plan goal is to maintain or restore riparian and aquatic habitat. Overall, the PIBO data indicates progression towards that goal.</p> <p>The Forest Plan did not specifically mention aquatic passage barriers; however, eliminating man-made barriers to aquatic organism passage is consistent with the Forest Plan's goals to restore and enhance habitat for native and desired non-native aquatic species.</p> <p>The elimination of aquatic passage barriers is progressing, but slowly. Since 2000, 99 aquatic passage barriers (culverts) have been eliminated. However, there are still 71</p>	<p>Bitterroot National Forest is not progressing as desired because temperatures continue to increase. The rising temperatures are being driven by the climate, not by forest management practices. As a result, there is little the Forest can do other than maintain existing levels of shade and increase/maintain year-round access to cold water refugia habitats.</p> <p>The Forest Plan does not specifically mention stream temperatures, but the maintenance of cold water suitable for native trout species is implied in the direction to maintain or enhance suitable habitat for native and desired aquatic species.</p>	<p>per year). At its current rate, it will take more than 50 years to eliminate all the remaining aquatic passage barriers on the Forest. Funding is the limiting factor. To speed up the rate of eliminating passage barriers, the Forest should either divert more funds into AOP projects or do a better job of obtaining partner dollars from outside sources. Another option is to be more aggressive in removing culvert barriers (a relatively inexpensive technique), instead of spending large sums of money to replace culverts.</p> <p>The Forest is essentially powerless to reverse stream temperature warming caused by climate change. However, it can mitigate the harmful effects of rising stream temperatures by ensuring that its watersheds are in as healthy a condition as possible. To do so, Forest projects should emphasize eliminating all aquatic passage barriers, reducing road sediment sources, retaining all existing shade in riparian areas, and reducing the negative effects of non-native trout species.</p>

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		culvert replacements or removals that have NEPA completed but have not been implemented. Funding shortages are the primary reason why progress has been slow. The eventual goal is to eliminate all the man-made fish passage barriers on the Forest.		
<u>MON-AQT-02</u> What is the status and trend of native aquatic species?	2020	No, though results indicate that habitat for westslope cutthroat trout are being provided; data also suggest that bull trout, steelhead, chinook salmon, and Pacific lamprey habitat are not moving towards goals and objectives due to influences from increased stream temperatures, non-native trout, and downstream impacts of fish hatcheries. Additionally, there is uncertainty if habitat is being provided for amphibians and western pearlshell mussels due to lack of robust data.	Yes	<p>Monitoring plan: broaden sampling scheme applied across the entire Forest for eDNA sampling would provide increased data set needed to evaluate mussels and amphibians.</p> <p>Management Activities: To the degree possible, recommend the Forest work with FWP to maintain instream flows and reduce the number and distribution of non-native trout species, particularly brown trout. These would be the most beneficial types of actions to improve the viability of native trout populations on the Montana portion of the Forest. An example of the type of project that could be more broadly applied is the Upper Overwhich Fish Removal project, which was conducted in 2017-19. In that project, Forest and FWP fisheries staff removed Yellowstone cutthroat trout from the upper portion of the Overwhich Creek watershed using the piscicide rotenone. It was the first chemical removal project completed in the Bitterroot River drainage</p>

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				Management Activities: For the anadromous species (steelhead, chinook salmon, and Pacific lamprey), there is not much the Forest can do to help these species other than reduce man-made sediment inputs to the Selway River and its tributaries. The decline of the anadromous fish species is largely due to major downstream issues (dams and hatcheries) associated with the Columbia River hydropower system. If the fish are able to make it to the Bitterroot NF, their habitat is nearly all wilderness and is generally in reference condition.
<u>MON-AQT-03</u> What is the condition of riparian areas following management activities?	2020	Yes. The monitoring results described in the “Results and Discussion” section suggest that in most instances, management activities are maintaining the status of riparian areas and are complying with Forest Plan/INFISH standards and guidelines.	No	None
<u>MON-VEG-01</u> Are silvicultural prescriptions being implemented as planned?	2020	Uncertain	Yes	Recommend change monitoring question to align with Forest Plan goals and objectives
<u>MON-VEG-02</u> Are forest stands moving towards desired future conditions?	2020	Yes	Yes	Recommend change monitoring question to align with Forest Plan goals and objectives
<u>MON-VEG-03</u> What is the status and change of vegetation disturbance?	2015	Yes.	No	None

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<u>MON-INV-01</u> What is the change in terrestrial invasive plant species area?	2018	Yes – The national database of record (TESP-IS) does not require percent cover as a means to show a reduction with treated acres; therefore, it is not the method used to track changes in area. See Table II-1 for an explanation of infested acres and total area.	Yes	Monitoring Plan: Recommend adding indicators tracking effectiveness of treatments. A standardized control code from the National TESP-IS Protocol will be used to approximate the most accurate control level. This information is submitted with the Annual Accomplishment Reporting; however, efficacy ratings are only for that fiscal year.
<u>MON-WTR-01</u> Is management improving or maintaining watershed conditions that support desired riparian and stream characteristics?	2018-2019	Yes	Yes	Recommend change monitoring question and indicator to align with R1 Broader Scale Monitoring Strategy questions and indicators. Also, prioritize erosion control improvements along the OHV Loop 1 trail in the Lower Rye Creek and Upper Sleeping Child watersheds.
<u>MON-SOILS-01</u> Are management activities impairing soil productivity?	2019	Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired. Based on this previous monitoring and historical averages, vegetation management operations on the Bitterroot NF continue to meet the R1 SQS and FP standard for soil productivity over the last 10 years. At this time, the consistent compliance shown by the past 8 years of monitoring supports that current project design and implementation adheres to the Bitterroot Forest Plan soil standards.	No	None
<u>MON-REC-01</u> What actions have been taken to change ground	2018	Yes, based on 1) expansion of rec opportunities, 2) changes to ground not impacting ROS objectives, 3) increase in	Yes	Monitoring Program: Modify indicators to only use those evaluated for this report and drop the remaining currently listed

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conditions to attain ROS objectives? What actions have impacted ROS objectives?		use in facility all facility types 4) recreation rentals with high occupancy rates.		Management Activities: Though progress is being made, some improvements are recommended. 1) improving infrastructure and providing increased customer service to the visiting public which alleviate the associated impacts caused by a higher visitation and recreation demand, 2) implementation of the Lake Como Master Plan, 3) continue to closely monitor undeveloped areas for potential increase that may trigger a need for management actions to attain SPNM and SPM ROS class objectives.
<u>MON-REC-02</u> Are management activities effective in reducing resources concerns related to off-road vehicle use, other trail use or recreation site use?	2018	Uncertain due to need to have more time to assess “the effectiveness of education and enforcement, the need for additional education and enforcement efforts, and a way to monitor the issues and identify areas where resource damage may be occurring.	Yes	Indicators need to be modified.
<u>MON-RDLS-01</u> What is the change in the roadless base? What activities have occurred in roadless areas to change their roadless character?	2018	Yes - Based on no new roads or change in roadless base.	Yes	Monitoring Plan: Modify indicators to those identified in the methods section and remove the remainder.
<u>MON-RNG-01</u> Are livestock managed for the carrying capacity of the land?	2017	Yes. Active allotments are managed to standards set up in the Environmental Assessments and Allotment Management Plans with changes made to meet long term goals.	No	None
<u>MON-RDS-01</u>	2019	Yes	No	None

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Do roads meet construction standards and BMPs?				
<u>MON-MIN-01</u> What effect are: forest management activities having on mineral activities / mineral activities having on forest management resources?	2018	Yes	No	None
<u>MON-ECON-01</u> Are projects marketable and being purchased when offered?	2020	Yes	No	None
<u>MON-VIS-01</u> Is visual quality being met after project implementation?		Uncertain	Yes	This item was not completed for this monitoring report due to vacancy in landscape architect position, recommendation is to fill the position and complete monitoring during next cycle.
<u>MON-FIRE-01</u> What is the number of fires managed in approved areas?	2020	Yes	No	None
<u>MON-FIRE-02</u> Are fuel reduction treatments effective at reducing the potential of uncharacteristically intense fire and increasing capabilities to protect life and property when a wildfire occurs within an	2020	Yes	Yes	MON-FIRE-02 and MON-FIRE-03 are very similar monitoring questions and should be collapsed into one question. An additional monitoring question is needed to address the amount of ecological restoration and/or the protection of values (homes, timber, bridges, infrastructure, etc.) accomplished with prescribed fire.

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area with previous fuel treatments?				The indicator for this monitoring question will be acres of prescribed fire applied.
<u>MON-FIRE-03</u> Are fuels treatments effective when a wildfire occurs in the area?	2020	Yes.	Yes	See MON-FIRE-02
<u>MON-SOC-01</u> How do Bitterroot National Forest activities affect adjacent land owners and communities?	2020	Yes	No	None
<u>MON-PROC-01</u> During project analysis and public outreach, emerging issues and social values are highlighted and addressed in project design, mitigation.	2020	Yes	Yes	This item should be dropped from future monitoring reports. For all projects required by law, the Bitterroot adequately scopes with the public and our partners and incorporates the feedback we receive into our project designs and mitigations. Public comments are posted to our webpage and decision documents describe how this input is incorporated.