

Please note, numbers 1 and 2 as marked in the following tables indicate the following:

1. Plan Intent: (A) Uncertain - Interval of data collection beyond this reporting cycle (indicate date of next time this monitoring item will be evaluated); (B) Uncertain - More time/data are needed to understand status or progress of the Plan Component(s); (C) Uncertain - Methods inadequate to answer monitoring question.(D) No - Implementation of Plan Component(s) ARE NOT trending, progressing, and/or conducted as desired; (E) Yes - Implementation of Plan Component(s) ARE trending, progressing, and/or conducted as desired.
2. [36 CFR 219.12(d)(2)] - The monitoring evaluation report must indicate whether a change to the (1) plan, (2) management activities, (3) the monitoring program, or a (4) new assessment, may be warranted based on the new information. The monitoring evaluation report must be used to inform adaptive management of Lolo Forest Plan area. see body of the report for more details regarding any specific recommendations/opportunities for change

Table 1. Summary of Findings to the 2021 Lolo National Forest Biennial Monitoring and Evaluation Report.

MONITORING ITEM	YEAR UPDATED	PLAN IMPLEMENTATION STATUS ¹ Do monitoring results demonstrate intended progress (i.e., maintaining, trending, or advancing) of the associated plan components listed with this monitoring item?	RECOMMENDATION Based on the evaluation of monitoring results, may changes be warranted?	MANAGEMENT If a change may be warranted, where may the change be needed?²
Wildlife				
MON-WLF-01: What is the current population status of elk on National Forest System Lands?	2021	(E) Yes. Elk are not trending downward since Plan inception and based on the MTFWP data and habitat improvement, elk populations meet the intention of Lolo Forest Plan.	Yes, recommend updating indicators to include open road density as the measure and refining the spatial extent of this to management areas 18, 19, 22, 23, and 26 which have a focus on elk.	Monitoring Plan
MON-WLF-02: What is the quantity of old growth on the Forest?	2021	(B) Uncertain. More time/data are needed to understand status or progress of the Plan Component(s).	Yes, recommend the following: A more current estimate of the quantity of old growth on the Forest is warranted that considers newly acquired lands and recent disturbance regimes. Consider updating the Forest strategy for old growth at the Forest scale. Please see this section in the full report for additional detailed	Monitoring Plan: a more current estimate of Old Growth present on the Lolo Forest is warranted. Management Activities: Update Lolo Forest Old Growth Strategy.

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			information related to recommendations. .	
MON-WLF-03: What is the quantity of large snags on the Forest?	2021	(E) Yes. Based on increases in snag size class proportion that are providing habitat for viable populations of wildlife and fish species.	Yes, recommend updating indicators by removing the height by size class metric for future monitoring, including the three size classes currently included in metrics. Please see this section in the full report for additional information.	Monitoring Plan
MON-WLF-04: What progress has been made towards habitat improvement for Threatened and Endangered Species recovery through forest management activities?	2021	(E) Yes. Grizzly bears appear to have an increase in population and are expanding their range. (E) Yes. Lynx habitat is not limited on the Forest and management continues to follow practices to aid in the recovery of the lynx, however, lynx do not appear to be expanding their range on the Forest indicating more information is needed.	No	NA
<i>Aquatic Environment and Fisheries</i>				
MON-FISH-01: What is the status of native fish including, but not limited to west slope cutthroat trout and bull trout?	2021	(C) Uncertain. Methods inadequate to assess the status or progress toward achieving plan component(s).	No, however as noted in the full report for this monitoring item, expand data analysis efforts along with coordination with partners.	NA
MON-STRM-01: What activities have been conducted to improve or maintain riparian habitat conservation areas (RHCAs), and aquatic habitat?	2021	(E) Yes. Based on the substantial management activities implemented that result in improved riparian and aquatic habitat.	Yes, recommend the following: Increase monitoring assessment and resources in order to improve data quality. Assure that projects include a geospatial data component to most effectively verify and display known project	Monitoring Plan

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			work. Please see this section in the full monitoring report for additional information related to these recommendations.	
MON-STRM-02: What is the condition of instream native fish habitat?	2021	(E) Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired. Management is resulting in high quality conditions throughout the majority of streams on the Lolo National Forest.	Yes, recommend the following: Reduce the list of indicators associated with MON-STRM-02. Update data sources to include the Lolo National Forest's Watershed Climate Change Vulnerability Assessment (WCCVA). Please see this section in the full monitoring report for additional information related to these recommendations.	Monitoring Plan
MON-STRM-03: What is the condition of riparian habitat conservation areas including wetlands?	2021	(B) Uncertain. More time/data are needed to understand status or progress of the item.	Yes, it is recommended to expand use of indicators for this monitoring item. Please see this section in the full monitoring report for additional information related to these recommendations.	Monitoring Plan
<i>Timber</i>				
MON-VEG-01: What vegetation management activities have been conducted to maintain or restore forest resiliency?	2021	(E) Yes. Vegetation management activities are providing a sustained yield of forest products and provide for the maintenance of a diverse mosaic of vegetational development.	No	NA
MON-VEG-02:	2021	(E) Yes. Based on large annual budgets to cut and clear vegetation for timber	Yes, Recommend the following: Update indicators used for this	Monitoring Plan

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Is vegetation established on temporary roads within 10 years of closure?		sale preparations indicating that old temporary routes need to be cleared, because they have revegetated from previous actions.	monitoring item with addition metrics that focus on post-sale activities. Please see this section in the full monitoring report for additional information related to these recommendations.	
MON-VEG-03: Is the Forest volume harvested exceeding the Plan ASQ?	2021	(E) Yes. Based on 10-yr period that was analyzed, average harvest was at a volume that was only about 30% of the allowable sale quantity assigned by Lolo Forest Plan	No	NA
MON-VEG-04: Are harvested/burned stands in the suitable base restocked within 5 years?	2021	(E) Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired. The vast majority of stands across the Forest are restocked within 5 years.	Yes, changes may be warranted where we are not trending towards the five-year timeframe. Management activities should place increased emphasis on moving toward the required timeframes.	Management Activities
Soils				
MON-SOIL-01: Are forest management activities maintaining soil productivity?	2021	(E) Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired. DSD results on both ground-based and skyline harvest units are currently below the 15% DSD threshold for Region 1 Soil Quality Standards.	Yes, it is recommended that some monitoring indicator assumptions be validated, and sample size of some indicators be increased to provide a more robust dataset for this monitoring item. Please see this section in the full monitoring report for additional information related to these recommendations.	Monitoring Plan
Recreation				
Mon-Rec-01:	2021	(E) Yes. Implementation of Plan Component(s) are trending,	No	NA

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Are motorized vehicle travel restrictions effective in limiting off-road vehicle damage?		progressing, and/or conducted as desired.		
Mon-Rec-02: Is a wide spectrum of recreation opportunities provided?	2021	(E) Yes. Based on results of the National Visitor Use Monitoring surveys and 74% of the visiting public gave a rating of very satisfied with their overall recreation experience.	Yes, it is recommended that in the next monitoring report, consider analyzing data relative to the impacts on outdoor recreation associated with the Covid 19 global pandemic.	Monitoring Plan
MON-REC-03: What activities are occurring in roadless lands and what amount and distribution of roadless lands remain on the Forest?	2021	(E) Yes. Implementation of Plan Component(s) ARE trending, progressing, and/or conducted as desired	<p>Yes, the following is recommended:</p> <p>The following three indicators, should be dropped from future monitoring and evaluations because no change in acres of substantially altered areas or miles of temporary roads has occurred since the inception of the 2001 Roadless Area Conservation Rule:</p> <ul style="list-style-type: none"> • Acres of Inventoried Roadless Areas substantially altered (36 CFR 294.13(b) (4)). • Acres of Inventoried Roadless Area not substantially altered. • Miles of temporary road constructed within Inventoried Roadless Areas. 	Monitoring Plan
Range				
MON-RNG-01:	2021	(E) Yes. Due to all existing active permits being administered to allotment management standard, allotments are	No	NA

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Is livestock use managed within the carrying capacity of grazing allotments?		being managed within carrying capacity for livestock.		
MON-RNG-02: Is the establishment and spread of invasive aquatic and terrestrial plant weed species being controlled (prevented or reduced) through use of integrated weed treatment practices?	2021	(E) Yes. Monitoring results indicate that establishment and spread is being controlled with weed treatment practices.	Yes, the following is recommended: Increase data collection with an emphasis on new invasive species.	Monitoring Plan
MON-RNG-03: Is weed spread increasing/decreasing and are new invasive plant species occurring?	2021	(B) Uncertain. It is largely unknown if new species are occurring due to lack of comprehensive monitoring efforts.	Yes, the following is recommended: Management activities should include a more comprehensive inventory and monitoring program. Monitoring Plan: Develop more appropriate Plan Components to tie to this monitoring item.	Management Activities and Monitoring Plan
MON-RNG-04: Are weed prevention being applied during project implementation?	2021	(E) Yes. Based on the observed implementation of weed prevention and mitigation measures in contracts and NEPA documents.	Yes. Recommend dropping this monitoring item. Please see this section in the full monitoring report for additional information related to these recommendations.	Monitoring Plan
Roads				
MON-RDS-01: Do the number of roads assist moving toward resource and other management needs and objectives, reflect long-term	2021	(B) Uncertain. More time/data are needed to understand status or progress of the Plan Component(s).	No	NA

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funding, and minimize environmental impacts?				
MON-RDS-02: Are roads designed and constructed to standard and meet State or Forest Best Management Practices (Best Management Practices)?	2021	(A) Uncertain. Pending the next State Best Management Practice audit results to confirm assumptions.	No	NA
Minerals				
MON-MIN-01: What effect are forest management activities having on mineral activities/mineral activities having on forest management resources?	2021	(E) Yes. Based on the rate planned operations approved is consistent with demand.	No	NA
Visual Quality				
MON-VIS-01: Do projects and activities comply with visual quality objectives?	2021	(E) Yes. Based on the sampled projects demonstrating adequate project design to move towards visual quality objectives.	Yes, it is recommended to modify the monitoring question to change the phrase "comply with" to "integrate" for consistency with current land management plan language.	Monitoring Plan
Fire				
MON-FIRE-01: Is air quality maintained during prescribed fire implementation?	2021	(E) Yes. based on prescribed burning being consistent with Montanan DEQ and Missoula City-County Health Department annual permits and within the approval guidelines	No	NA
MON-FIRE-02:	2021	(E) Yes. Based on the accomplished annual acres of fuels treatments.	No	NA

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Have fuel treatment targets been accomplished?				
MON-FIRE-03: Are unplanned ignitions (wildfire) being managed for resource benefits when appropriate?	2021	(E) Yes. Implementation of plan component to manage wildfire for resource benefit to achieve land management objectives is trending toward a desired result.	Yes, the following is recommended: During Assessment phase for plan revision, assess wildfire as a resource benefit. Monitoring Program: Consider changing Monitoring Question to account for wildfire acres that assist in moving towards land management objectives, instead of wildfire acres managed strictly for resource benefit.	Plan and Monitoring Plan
<i>Adjacent Lands, Resources and Communities</i>				
MON-SOC-01: What effects do forest management activities have on the local economy, recreation opportunities, downstream water uses, visual quality, and local air quality?	NA	(B) Uncertain. Data was not compiled for this monitoring item.	No	NA
MON-SOC-02: What effects do adjacent land uses and activities have on management of the Forest?	NA	(B) Uncertain. Data was not compiled for this monitoring item.	No	NA
<i>Lands</i>				
MON-LAND-01:	2021	(E) Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired	No	NA

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What adjustments have been made to land ownership within the Forest boundary?				
MON-LAND-02: Have major utility and transportation systems and right-of-way grants been developed within identified corridors?	NA	(B) Uncertain. Data was not compiled for this monitoring item.	No	NA
Process				
MON-PROC-01: Are emerging issues or changing social values being tracked?	2021	(E) Yes. Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired.	No	NA
MON-PROC-02: Have errors in original land allocations been evaluated and corrected?	2021	(E) Yes - Implementation of Plan Component(s) are trending, progressing, and/or conducted as desired because errors in original land allocations are evaluated on a project-by-project basis and corrected as needed.	No	NA