



*Developing a Framework for the U.S. Forest Service Broader-Scale
Monitoring Strategy: Processes and Outcomes*

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Introduction

The 2012 U.S. Forest Service (USFS) Planning Rule requires “the development of a broader-scale monitoring strategy [BSMS] for plan monitoring questions that can best be answered at a geographic scale broader than one plan area.” The Southwest Ecological Restoration Institutes, in partnership with the USFS Southwestern and Rocky Mountain Regions, developed a framework for a regional broader-scale monitoring strategy. The project included a multi-step process designed to capture input from stakeholders, USFS staff, other agency partners, and other monitoring experts to best meet the intent and requirements of the 2012 Planning Rule. A BSMS framework was synthesized from four state-based workshops (AZ, NM, CO, WY) in 2016 and more than 90 interviews.

Monitoring is a critical component of the 2012 Planning Rule framework. The intent of a BSMS is to monitor important elements at scales greater than one forest to better inform forest plan effectiveness and identify if and when any modifications to plan guidance may be necessary. USFS Handbook direction suggests appropriate scales for a BSMS include multiple forests and surrounding lands within a region, and can span multiple regions. A key opportunity for a BSMS is to create monitoring efficiencies through increased communication and coordination with USFS staff and partners that can help to achieve the “all-lands” approach emphasized by USFS and other public land agency leadership. For this effort to be successful, support from the Washington Office and regional leadership is needed.

The following recommendations and observations encapsulate the major findings from this process to create the basic framework for moving forward with a broader-scale monitoring strategy. Additionally, a set of broader-scale monitoring indicators and available datasets were developed and can be found in the full report at www.sweri.eri.nau.edu/BroadscaleMonitoring.html.

Primary Recommendations for a Broader-Scale Monitoring Strategy:

- 1) **Increase efficiency.** The Planning Rule directs the USFS to increase efficiencies, while also addressing stressors and threats at the landscape scale. Suggested mechanisms to increase efficiency include (Figure 1):
 - Develop a common set of broader-scale monitoring questions at the regional level.
 - Identify existing monitoring efforts that meet BSMS criteria.
 - Aggregate existing data from forest-level monitoring.
 - Standardize the monitoring indicators and data collection protocols within and across national forests.
 - Utilize existing corporate data and analytical capacity.
 - Support and share USFS innovations developed at forest and regional levels.
 - Share lessons learned, including processes, collaboration, and monitoring resources, between and across partners and landscapes.
 - Coordinate data sharing and data management within and across agencies and partnerships.
- 2) **Build Capacity.** A BSMS requires capacity at regional or sub-regional levels for implementation. The planning rule states the need for a BSMS to operate within existing funding levels; no new funding was allocated for a BSMS. We suggest additional capacity gains may be accomplished from utilizing existing staff, USFS corporate and partner resources, as well as increasing monitoring efficiencies across forests.

- Dedicate technical expertise to assist with question and protocol development and integration, data roll-up and assessment.
- Plan for technical training and education for USFS staff.
- Work with high capacity partners (state and federal agencies, nonprofits, tribes) strategically and efficiently to fill BSMS monitoring gaps.
- Dedicate regional staff for coordination, communication and adaptive management recommendations.
- Engage line officers and forest staff in BSMS development.

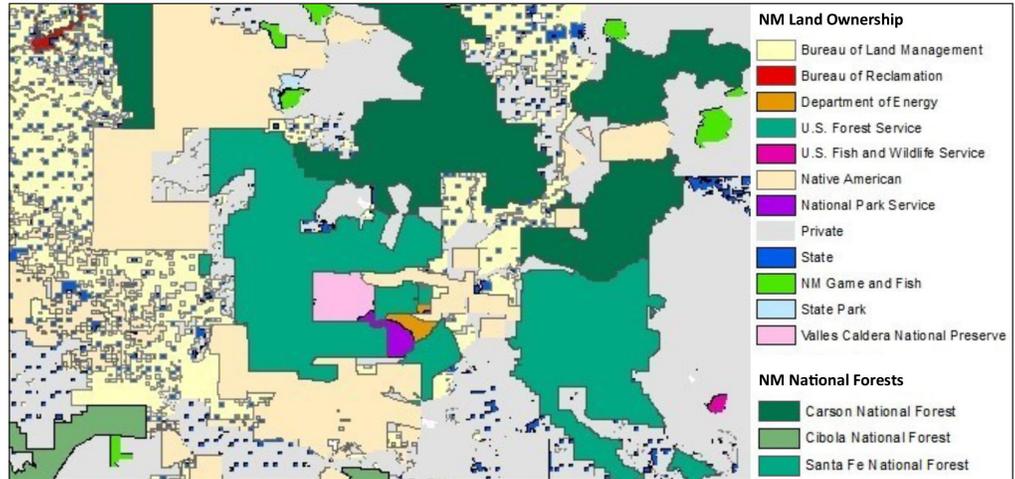


Figure 1. Multiple adjacent land-ownerships provide the USFS with opportunities for partnerships and data sharing to monitor at a broader scale.

- 3) Capitalize on existing opportunities. The planning rule suggests multiple broad-scale monitoring (BSM) strategies and sub-strategies can be developed to meet the BSM requirement. This allows a flexibility to be opportunistic across the forests in a region.
 - Capture BSM needs for each forest as opportunities arise through forest planning.
 - Link monitoring to forest plan assessment through the forest planning process.
 - Utilize national-level reviews of forest-level monitoring plan development.

To achieve these recommendations, participants also recommended specific communication needs and partnership engagement opportunities:

BSMS communication:

- 1) Identify opportunities to work closely with other land and wildlife management agencies to better understand key stressors and threats across boundaries.
- 2) Identify efficient and effective strategies for collecting BSMS data and communicating BSMS results and information back to forests and other audiences. Clear articulation of the audiences for BSMS data delivery, and the appropriate time intervals for that communication are needed.
- 3) Formal communication methods are recommended given the high level of turnover within USFS positions. Similar to sharing innovations, in-person workshops are preferred; report delivery or web delivery are less effective for information dissemination.

BSMS partner engagement:

- 1) USFS regional and forest leadership should work together to identify partnership opportunities and develop partnership strategies prior to engaging partners in the process.
- 2) Technical workshops with USFS resource professionals (at regional and forest levels) and corporate analysts will clarify existing BSMS strategies already in place and allow for more strategic engagement with partners.
- 3) Third-party facilitation will strategically engage partners with technical expertise prior to public engagement.

An over-arching recommendation across four workshops and 90 interviews is that a BSMS can build on current monitoring efforts. Existing data and existing monitoring that meets BSMS criteria should be leveraged, and monitoring indicators and data collection protocols should be standardized within and across national forests and surrounding landscapes. Increased coordination and understanding across agencies will support an “all-lands” approach to land management and engage partners in monitoring across land management jurisdictions.

This fact sheet summarizes information from the following report:

Waltz, A.E.M., Z. Wurtz bach, B.E. Esch, T. Wasserman, and C. Schultz. 2016. Broader-Scale Monitoring Strategy Project: Report on Statewide Workshops Processes and Outcomes. Special Report to the U.S. Forest Service.

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