BLM

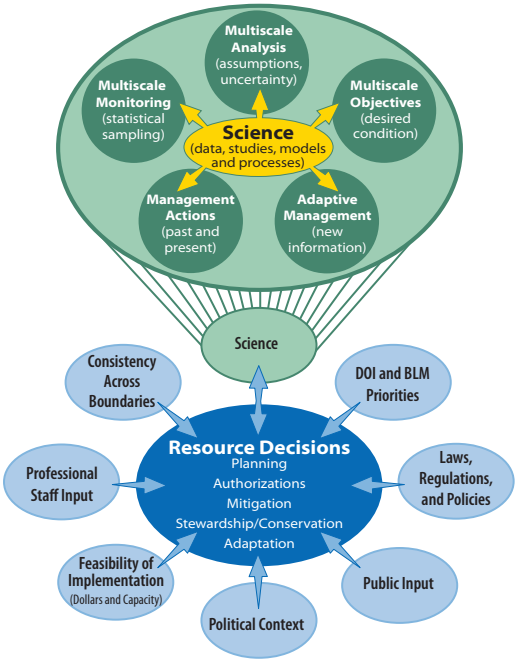
A Strategy to Further Advance Science in the BLM's Everyday Work

This fact sheet introduces the publication "Advancing Science in the BLM: An Implementation Strategy"

The Importance of Science in the BLM's Mission

The Bureau of Land Management (BLM) has a compelling mission to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations. The BLM is currently managing public lands in an era of changing climate, landscape-scale planning, large dataset development, advanced technology, increased public expectations, and diverse legal challenges. In addition to legal and policy requirements, public opinion, professional expertise, etc., it is essential for science and science-based tools to play a continual role in BLM decisionmaking processes.

Science Integration



Recognizing the increasing importance of science-informed decisions, the BLM performed an internal assessment of science activities and opportunities in 2012 and 2013. In 2014, BLM Director Neil Kornze asked a team (the Advancing Science Integration Strategy Team—ASIST) to develop an implementation strategy to advance science in the BLM. To read the full strategy, go to **www.blm.gov/wo/st/en/info/blm-library/publications/blm_publications/advancing_science.html**.

The ASIST members found countless examples in which the BLM has effectively embraced science-land management integration. While the team encountered variations throughout the BLM, it was clear that these examples can serve as a foundation to advance science into all aspects of land management and become a model for integrating science consistently throughout the BLM.

What Makes This Different from Previous Science Strategies?

This strategy is unique to the BLM in that it includes:

1. A more durable commitment to science-informed decisions through the establishment of the National Science Committee under the BLM's Executive Leadership Team.

2. Systematically using automated technology through a new "Science One-Stop" website to:

   - Make science results more accessible and timely to BLM employees.
   - Highlight case studies and best practices of science integration.
   - Connect BLM staff and managers with science partners.
   - Make data accessible and transparent to BLM staff and partners.

3. Incorporating principles and practices of science-land management integration into policy guidance, planning, and technical training.

4. Increasing employee training and involvement in professional/scientific communities.

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Strategy Goals to Further Science Implementation

The strategy focuses on two goals that will be implemented through 19 actions across the BLM over 3 to 5 years (see the Science Action Plan in the complete strategy). Collectively, these actions will serve to advance a work culture that deliberately and consistently obtains and applies mission-oriented science in every office, in every program, and in every project.

Goal 1: Ensure effective and consistent science integration into the BLM's core work processes.

The ASIST members recognize the need to make integrating science into BLM work processes a more consistent and foundational part of BLM culture. Through review of scientific literature and many successful examples of science integration into land management, five principles and practices emerged that, when adopted, can help guide the BLM in this effort.

5 Principles and Practices of Science-Management Integration

1. Use the best available scientific knowledge relevant to the problem or decision being addressed, relying on peer-reviewed literature when it exists.
2. Recognize the dynamic and interrelated nature of socioecological systems within which the BLM operates.
3. Acknowledge, describe, and document assumptions and uncertainties.
4. Use quantitative data when it exists, in combination with internal and external professional scientific expertise.
5. Use transparent and collaborative methods that consider diverse perspectives.

Goal 1: Specific Implementation Strategies

1.1. Adopt, publish, and communicate the five principles and practices for more consistent science integration into land management core work processes.
1.2. Promote continuity of the science-land management integration culture throughout the agency and over time.

Goal 2: Ensure that relevant, timely scientific information is accessible to BLM staff and managers.

Today, there is a growing reservoir of land management-related science. However, it can be difficult to access in a timely manner and is often difficult to translate into management applications. ASIST members found that when the best available science is visible, accessible, and understandable, BLM professionals put it to use. The BLM and its science partners must do a better job of sharing information about relevant science findings, demonstrating the application and integration of science into BLM work, and focusing scientific undertakings on the most compelling management questions.

Goal 2: Specific Implementation Strategies

2.1. Communicate and translate new science results and science-land management integration successes.
2.2. Strengthen communities of practice, employee skills, and partnerships.
2.3. Identify and prioritize the changing needs of scientific information.
2.4. Strengthen technology and data support.

Case Studies that Exemplify the Principles and Practices of Effective Scientific Integration

The strategy includes snapshots of five BLM case studies that show how science serves an important role in the successful management of diverse programs across many geographical areas. The case studies include:

#1: Regional Mitigation Strategy for the Dry Lake Solar Energy Zone in Nevada
#2: Greater Sage-Grouse Conservation Planning Effort
#3: Adaptive Grazing Management in Las Cienegas National Conservation Area
#4: Wyoming Landscape Conservation Initiative: LaBarge Mule Deer Habitat Case Study
#5: Biological Soil Crust Forum, Grand Staircase-Escalante National Monument

The Strategy's Big Picture

The BLM can make significant strides in advancing science by committing to the two focused goals and associated implementation actions described in the strategy. With a focused commitment, the best available science can become more visible, accessible, and useful, and it will be more consistently integrated into daily work. Science-informed land management decisions will become more transparent and routine as the BLM builds upon many successes and lessons learned from both creative and capable employees and BLM science partners. As decisionmakers and employees stay current with up-to-date science and collaborate with existing science partners, the BLM can become a leader in using science to inform management decisions.

Read the Complete Version of the Strategy

To read the complete version of "Advancing Science in the BLM: An Implementation Strategy," go to **www.blm.gov/wo/st/en/info/blm-library/publications/blm_publications/advancing_science.html**.