



U.S. Department of the Interior
Bureau of Land Management

Restoration Prioritization and Planning

Fall 2024



Sacramento River Bend, BLM photo



Public Lands Rule

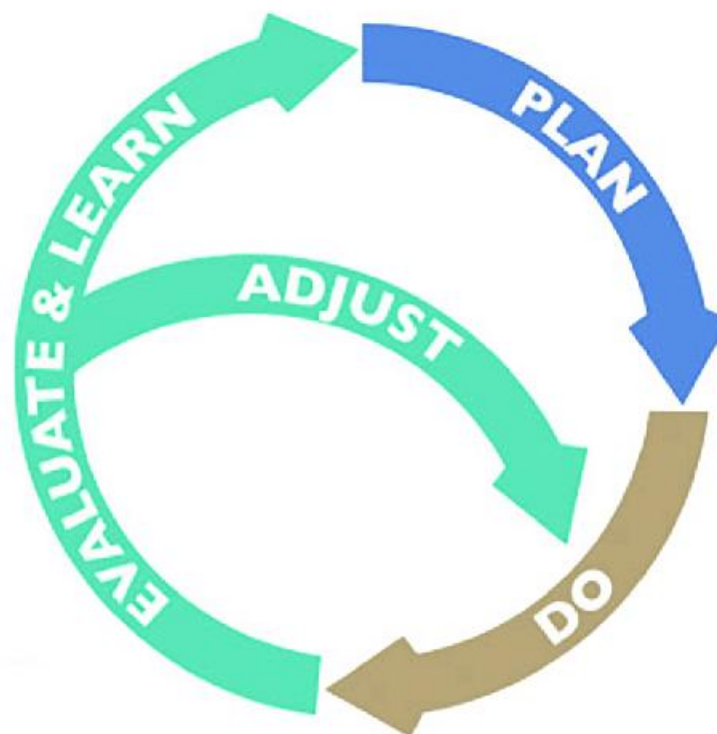
1. **Protect** clean water and wildlife habitat;
2. **Restore** lands and waters that need it; and
3. Make **informed management decisions** based on science, data, and indigenous knowledge.





Adaptive Management Framework

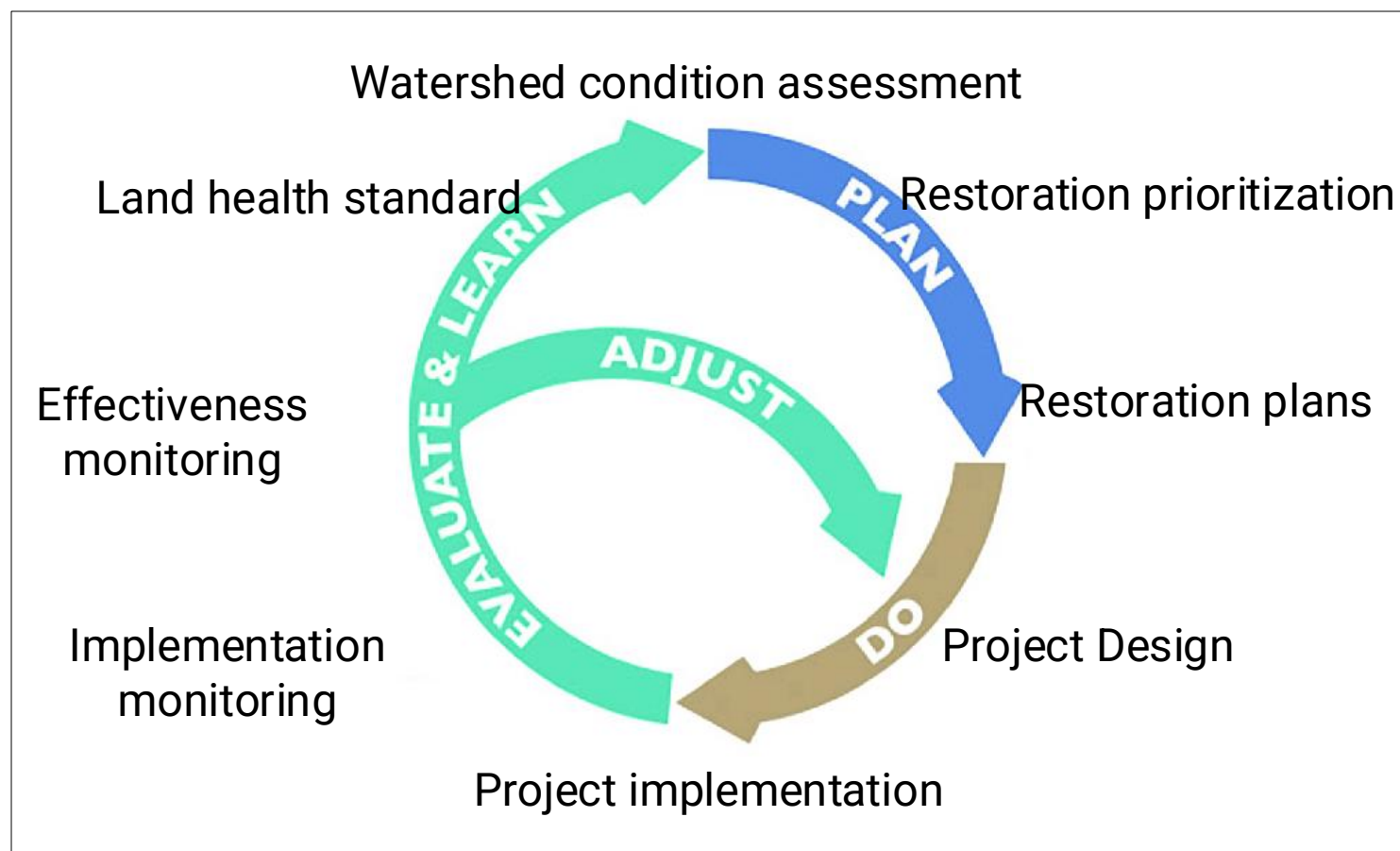
Adaptive management is a key to both restoration and informed decision making. Fundamentally, adaptive management is a structured approach to decision-making and natural resource management based on actions, outcomes, and monitoring to learn and determine whether actions are working or whether changes are needed.





Many components of the Public Lands Rule assist with our implementation of the adaptive management framework.

- Land Health Standards provide the context for learning about the condition and trend of soils, water, habitat, and ecological processes
- Watershed Condition Assessments compile condition and trend data, assess intactness, identify drivers for observed conditions, and inform management actions
- For degraded systems, Watershed Condition Assessments help inform restoration prioritization and planning
- Restoration implementation and effectiveness monitoring help determine whether management actions are working or whether changes are needed





Restoration Prioritization and Planning

Public Lands Rule Section 6102.3 has **four main requirements** for restoration prioritization and planning; further outlined in IM 2024-035, Restoration Prioritization and Planning:

1. Identify measurable and quantifiable **restoration objectives**;
2. Identify **priority restoration landscapes**;
3. Develop or amend **restoration plans** for priority restoration landscapes; and
4. Conduct **implementation and effectiveness monitoring** for restoration actions.



Restoration Defined in the Public Lands Rule

- The process or act of conservation by passively or actively assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed to a more natural, native ecological state.
 - An important restoration component is the desired outcome or degree of recovery from our actions; in this case a more natural, native ecological state.
 - For example, when designing and installing beaver dam analogs, practitioners should design structures to be temporary and mimic, promote, and eventually sustain natural processes. Placement of analogs should reflect the historic location and frequency of beaver dams.
 - This contrasts with stream rehabilitation where actions such as installing gabion baskets might be necessary to stabilize stream banks and protect infrastructure, but they do not have the goal of returning a system to a more nature, native state,





A Continuum of Conservation Actions

- Remediation, reclamation, and rehabilitation play an important role prior to restoration in certain types of degraded systems
- These activities reinstate some level of ecosystem function by reducing threats, addressing degradation, and enhancing potential for ecosystem recovery
- Many BLM programs play an essential role in restoration and preparing for restoration





Restoration Prioritization and Planning

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Identify Measurable & Quantifiable Restoration Outcomes

Outcomes must be consistent with the *Restoration Principles* outlined in Section 6102.3. These principles are hallmarks of actions to achieve durable restoration outcomes.

- ☐ Address the root causes of degradation
- ☐ Ensure actions occur at appropriate spatial and temporal scales
- ☐ Coordinate actions across programs and consider existing uses
- ☐ Include BMPs, high quality information, and adaptive management
- ☐ Consider using nature-based solutions, low tech restoration activities, and native seeds
- ☐ Consult with Tribes to identify opportunities for co-stewardship and collaboration





Identify Measurable & Quantifiable Restoration Outcomes in RMPs

- Measurable and quantifiable restoration outcomes help set clear expectations by specifying the desired ecological condition (i.e., level of ecosystem recovery sought), hold us accountable, and provide a clear understanding of the time needed to achieve the objective.
- Not all RMPs currently contain explicit measurable and quantifiable restoration outcomes. We can build measurable and quantifiable restoration outcomes based on management direction in existing RMPs.





How can we develop restoration plan objectives based on existing RMP management direction?



- RMP objective: Improve, deteriorated high and medium priority habitat
- Restoration objective: Restore 50 miles of Lahontan Cutthroat Trout habitat within the next 3 years by reducing fine sediment levels by 20% and increasing habitat complexity by 50%.



How can we develop restoration plan objectives based on existing RMP management direction?



- RMP objective: Improve sage brush habitat
- Restoration objective: Restore sagebrush ecosystems by removing pinyon-junipers to 4% cover within 5 years.



Restoration Prioritization and Planning

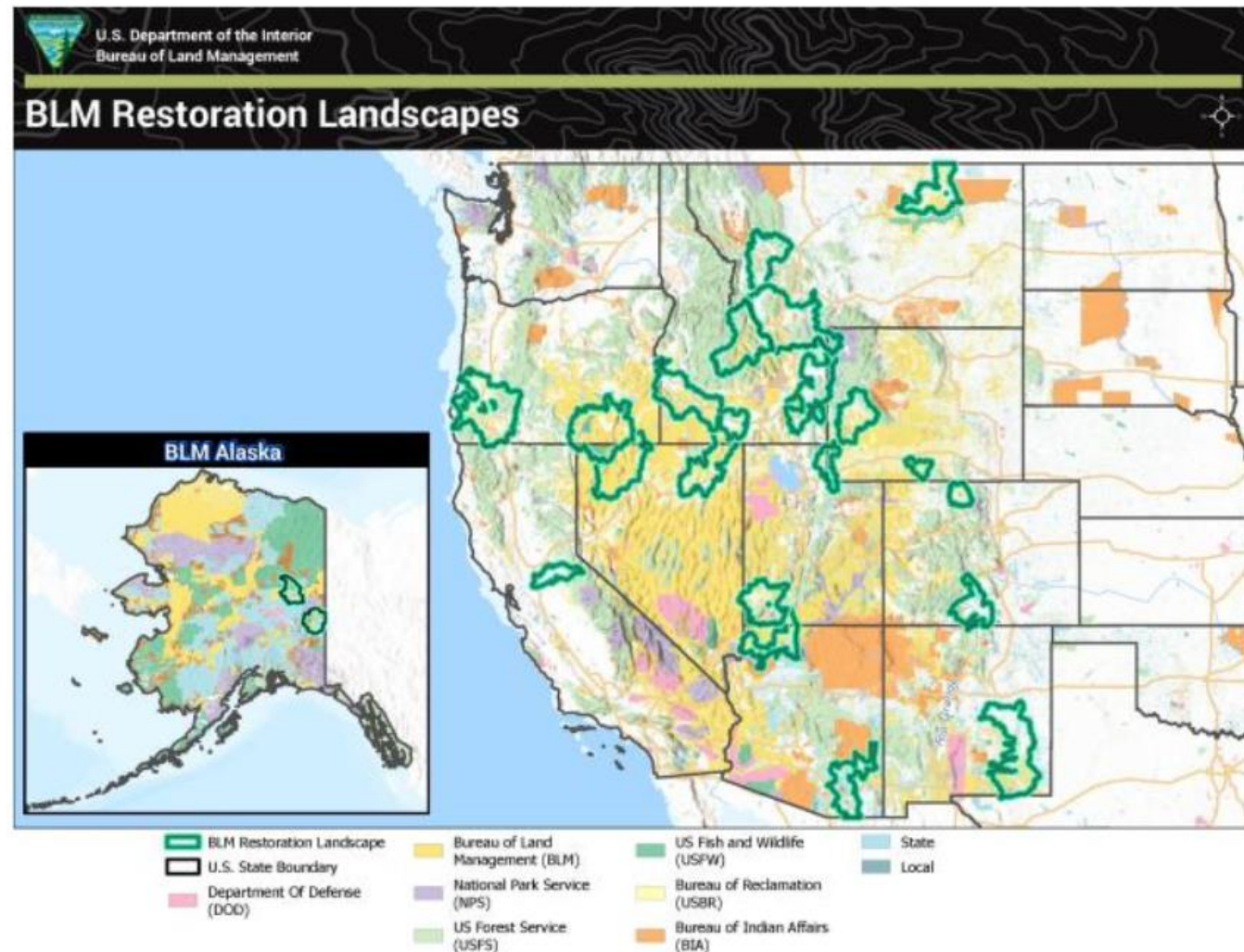
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Restoration Prioritization

- Identify two priority landscapes per state
- First deadline: December 31, 2024
- 5th level Hydrologic Unit Codes (HUCs)
- Update/verify restoration landscapes every five years
- Encouraged to start with IRA Restoration Landscapes

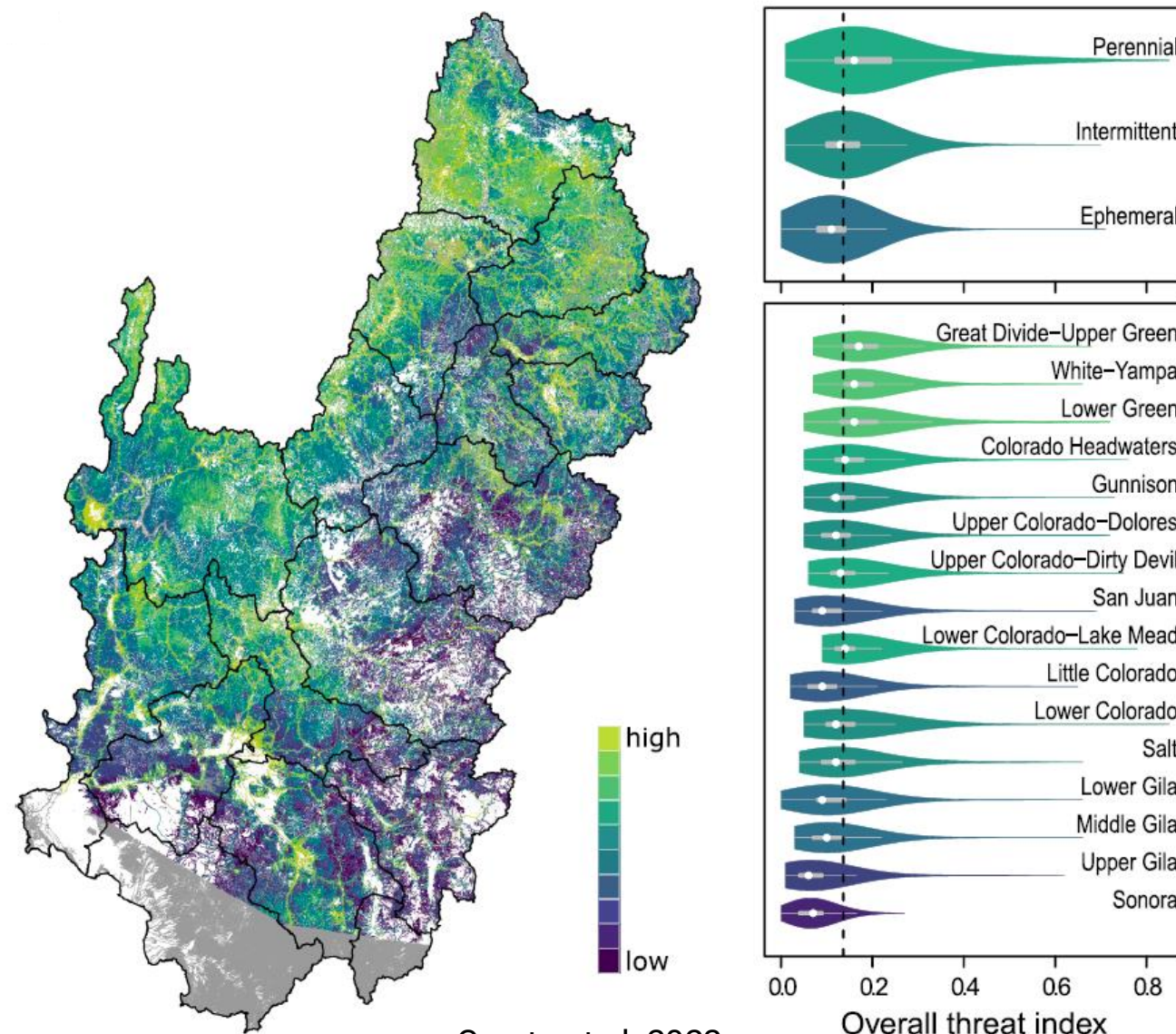




Restoration Prioritization

- The Public Lands Rule provides for us to consider ecological, socioeconomic, and collaborative potential for the selection of restoration landscapes.
- Restoration needs are greater than available resources. Identifying priority landscapes enables us to strategically invest limited restoration funding.
- Through prioritization, we are looking to optimize success and benefits to the American Public by considering things like recovery potential, resources to achieve that potential, and partners that can support our restoration goals.
- The prioritization process ensures transparency, equity, and collaboration.

Aquatic threat index for the Colorado River Basin

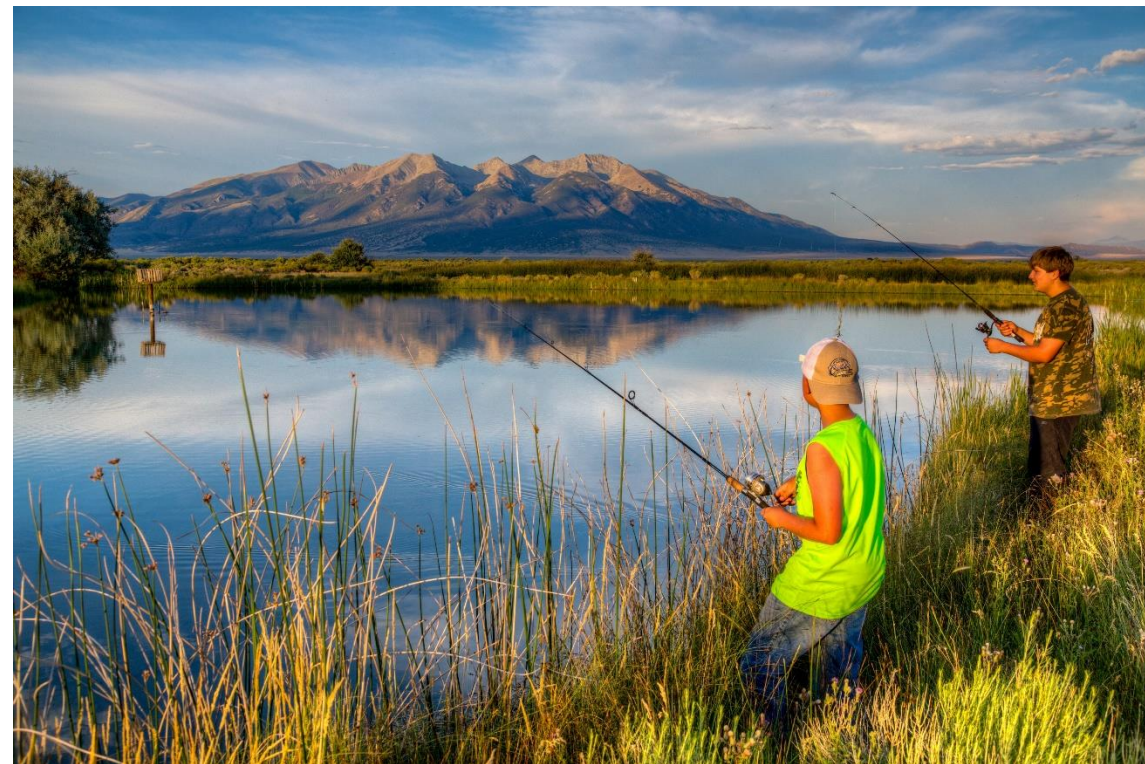


Comte et al. 2022



Restoration Landscapes Prioritized Based On:

- Presence of important and/or sensitive resources
- Degree of degradation and recovery potential
- Extent and distribution of BLM-managed lands
- Social and economic benefits
- Public support & collaboration potential





Restoration Prioritization – IM 2024-035 Att. 1

- To assist with the identification of priority landscapes, a fillable PDF template is a component of the Restoration Prioritization and Planning IM, found at Attachment 1.
- This template is to be used to nominate watersheds as priority restoration landscapes, beginning in 2024 and for subsequent nominations occurring on a five-year basis.

Attachment 1: Priority Restoration Landscape Identification Rationale

Two priority restoration landscapes will be chosen by the end of the first quarter of FY2025. This template documents the factors used to identify priority landscapes for restoration. The information in this rationale may be similar to the information in the restoration plan template.

Submitting State's Information

Point of Contact:	Click or tap here to enter text.
Date:	Click or tap to enter a date.
State:	Click or tap here to enter text.
District:	Click or tap here to enter text.
Field Office(s):	Click or tap here to enter text.
Name of the Restoration Landscape:	Click or tap here to enter text.

1. Identify the 10-digit, 5th level Hydrologic Unit Codes¹ (HUCs), or aggregation of these HUCs, and provide the HUC numbers (20 words):
Click or tap here to enter text.



Restoration Prioritization and Planning

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Timelines

- Initial priority restoration landscapes will be identified by December 31, 2024
- Restoration plans to be completed by September 30, 2025





Restoration Plans Describe:

- Current conditions and causes of degradation
- Important, scarce, or sensitive resources
- Reference system
- Recovery potential
- Goals, objectives, and actions
- Best management practices
- Collaborators, stakeholders, and tribal partners
- Roles and responsibilities

IM 2024-035 Att. 2 guides this process





Restoration Planning Approach

- A restoration plan may be developed as part of a larger restoration strategy such as a DOI keystone initiative, a recovery plan, or interagency collaboration effort.
- Restoration plans may be developed as part of the land use planning process, and that approach may be particularly appropriate where the planning effort will involve identification of priority restoration landscapes.
- Alternatively, the PLR anticipates that restoration plans may be developed outside any broader planning process.





Assessing and Maintaining Restoration Plans

- Restoration Plans must include a monitoring plan.
- Restoration plans must be assessed at least every five years.
 - If the restoration goals have been met, new priority landscapes may be identified, and new restoration plans prepared.
 - If the restoration goals have not been met, or if there is a change in resource conditions, BLM should assess the need for additional resources and new management actions.
- BLM States Offices must maintain at least two priority restoration landscapes.





Restoration Prioritization and Planning

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Restoration Monitoring Requirements

Develop and implement a monitoring plan to track both the implementation and effectiveness of restoration actions to achieve the goals and objectives of the restoration plans.

Implementation Monitoring:
What did we do and where?



Effectiveness Monitoring:
What were the outcomes?
Were objectives achieved?





Restoration Monitoring Plans

Must Address:

- Management goals
- Planned activities
- Monitoring objectives including indicators and methods
- Reporting areas
- Monitoring location selection and timeframes
- Data types including quality assurance and control procedures





Inventory and Monitoring of Ecological Resources Manual (MS 1735)

Establishes policy for **gathering high quality information** related to ecological resources on public lands managed by the BLM, **assessing** and **evaluating** information to understand the landscape, **documenting results**, and **using results** to inform decision-making across program areas.



Form 1221-682 (May 2023)		UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT		Release 1-1831
		MANUAL		Date 08/07/2024
Subject: INVENTORY AND MONITORING OF ECOLOGICAL RESOURCES		TRANSMITTAL SHEET		Office Code HQ-210
				FOIA Designation: P Letter:
1. <u>Updates, supersedes, or rescinds:</u>				
New Manual.				
2. <u>Explanation of Materials Transmitted:</u>				
MS-1735, Inventory and Monitoring of Ecological Resources, provides policy guidance for collecting, managing, and applying high-quality, science-based inventory, assessment, and monitoring information related to ecological resources on public lands managed by the BLM. This new policy ensures that BLM ecological resource monitoring activities are well-coordinated, efficient, and provide maximal information for decision-makers. This policy builds on existing MS-1734 Inventory and Monitoring Coordination and the 2011 Assessment, Inventory, and Monitoring (AIM).				
3. <u>Reports Required:</u>				
None				
4. <u>Delegations of Authority Updated:</u>				
None				
5. <u>Filing Instructions: File as directed below.</u>				
REMOVE		INSERT		
None		All of 1735 (Ref. 1-27) (Total: 29 Pages)		
S. J. Sharif Branham Assistant Director				



BLM Monitoring Principles



Structured implementation



Standardized field measurements



Appropriate sample designs



Data management and stewardship



Integration with remote sensing



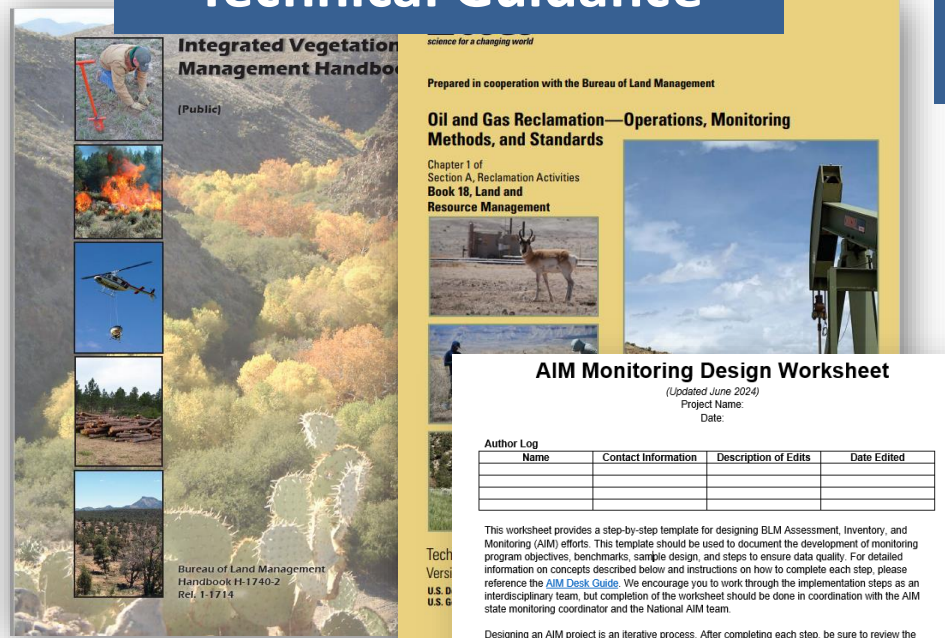
Data use



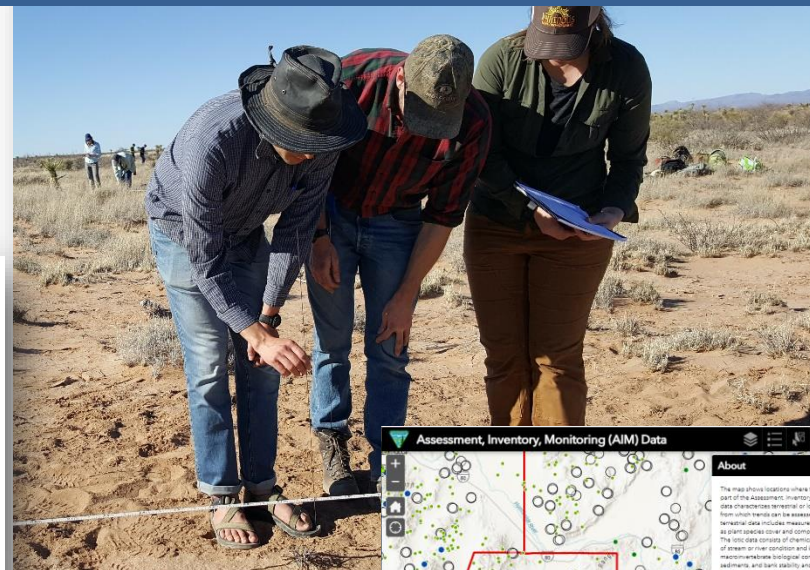


Available Tools to Inform Restoration Monitoring Plans

Technical Guidance



Standardized Protocols and Training



Mobile Data Capture



AIM Monitoring Design Worksheet
(Updated June 2024)
Project Name: _____
Date: _____

Author Log

Name	Contact Information	Description of Edits	Date Edited

This worksheet provides a step-by-step template for designing BLM Assessment, Inventory, and Monitoring (AIM) efforts. This template should be used to document the development of monitoring program objectives, benchmarks, sample design, and steps to ensure data quality. For detailed information on concepts described below and instructions on how to complete each step, please reference the [AIM Desk Guide](#). We encourage you to work through the implementation steps as an interdisciplinary team, but completion of the worksheet should be done in coordination with the AIM state monitoring coordinator and the National AIM team.

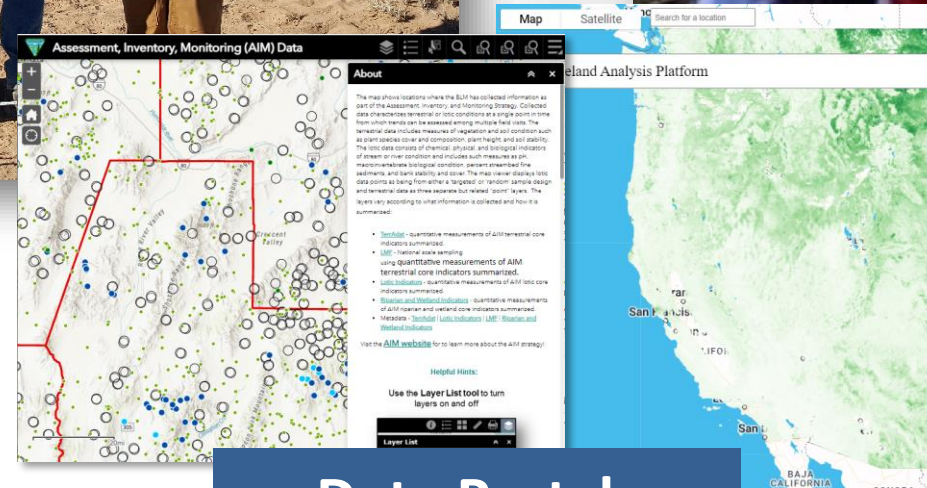
Designing an AIM project is an iterative process. After completing each step, be sure to review the results of previous steps, as the outcome of later steps may cause a need to modify earlier decisions. For example, design decisions made when stratifying the study area (Step 3) often reveal issues that lead to new management goals or monitoring objectives (Steps 1 and 2).

Step 1: Develop management goals; select additional ecosystem attributes and indicators to monitor.

Step 1a: Develop management goals related to resource condition and (if necessary) resource trend.
Management goals should provide the context for why monitoring information is needed and how it will be used.

Step 1b: Select indicators to monitor and additional ecosystem attributes.

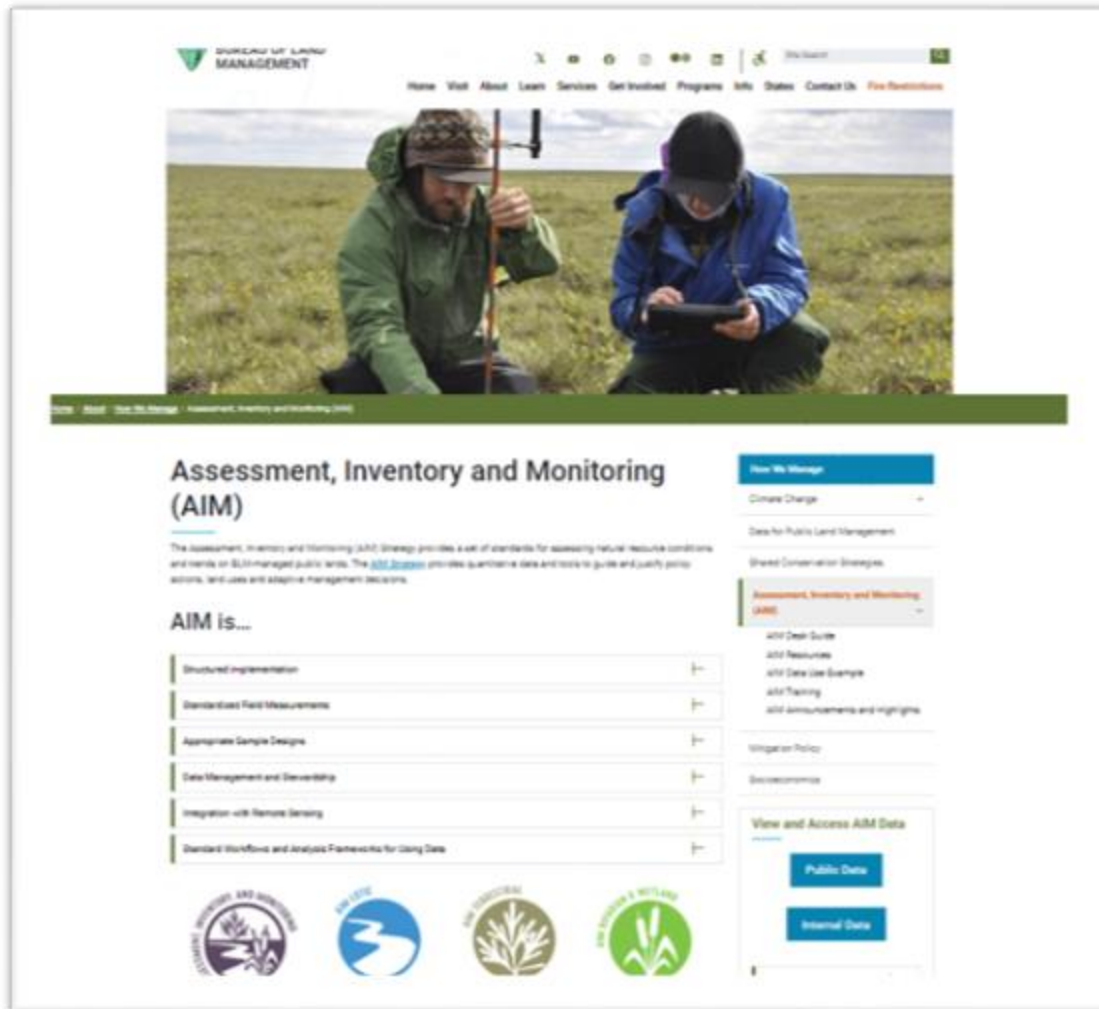
Monitoring Plan Templates



Data Portals



Learn More: Assessment, Inventory and Monitoring (AIM)



- The AIM program provides tools for monitoring uplands, streams, rivers, wetlands and riparian areas. The AIM principles are smart business practices for streamlining monitoring.
- AIM provides monitoring plan templates, standardized protocols, trainings, and mobile data capture tools that are used across the BLM.
- AIM has also partnered with wildlife, aquatic resources, and range programs to provide info and training on available satellite derived map products.
- Learn more about available tools and datasets on the BLM AIM website – blm.gov/aim



Restoration Advisory Team

A Restoration Advisory Team will provide support for State Restoration Coordinators on topics such as:

- Identifying priority landscapes
- Resource specific questions
- Monitoring plans
- Restoration plans





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Thank You

