



U.S. Department of the Interior
FY 2022–2026 Learning Agenda
Annual Update FY 2024



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INTRODUCTION

BUILDING AND USING EVIDENCE AT THE DEPARTMENT OF THE INTERIOR

The U.S. Department of the Interior (Interior, Department) protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, Native Hawaiians, and affiliated island communities. To fulfill its mission in the most effective, efficient, and equitable manner, Interior recognizes the importance of building and using evidence as a tool in program design and delivery. The bureaus and offices that constitute the Department vary in their capacity for using and building evidence; therefore, the Department employs a range of methods to build evidence including program evaluations, program audits, internal control reviews, performance measurement, policy analysis, risk management, indigenous knowledge, and scientific research. This learning agenda is an updated look at how Interior's leadership can establish an evidence base to inform decision making by focusing on the Department's highest priority questions.

[The Foundations for Evidence-Based Policymaking Act of 2018](#) (Evidence Act) P.L. 115-435 requires federal agencies to establish and use a learning agenda for planned learning and evidence-building. The four-year learning agenda is aligned with Interior's Strategic Plan and outlines a set of priority learning questions which highlight needs in Interior's evidence base and opportunities for learning. Answering these questions through evidence-building activities enables Interior to make progress toward achieving the Department's strategic goals and objectives.

As Interior continues to learn and build evidence, and as new questions and priorities arise, the plans established in this learning agenda may change. The process isn't linear, but rather, a cycle of learning and continuous improvement.

Interior's Evaluation Officer works closely with the Department's Chief Data Officer and Statistical Official designated under the Evidence Act. These three officials provide guidance, direction, and consultation, as well as technical assistance, to bureaus, Departmental offices, and regional and field level offices in building and using evidence. As evidence is built, the officials also ensure that this evidence is used for decision making, is equitable and transparent, and that the Department's capacity for evidence-building and use continues to improve.

FISCAL YEARS 2022 – 2026 DOI STRATEGIC PLAN

The learning agenda is aligned with the Fiscal Years (FY) 2022-2026 Interior Strategic Plan which provides the framework for identifying and pursuing priority learning questions. In the Strategic Plan, Interior lays out four strategic goals:

Goal 1

Promote well-being, equity, and justice for Tribes, American Indians, Alaska Natives, Native Hawaiians, and insular communities

Goal 2

Conserve, protect, manage, and restore natural and cultural resources in the face of climate change and other stressors

Goal 3

Sustainably balance the use of resources while supporting communities and the economy

Goal 4

Serve and honor the public trust

Interior approached the development of the FY 2022-2026 Learning Agenda to further leadership conversation and dialogue around Departmental initiatives that support specific, and span multiple, strategic goal areas. As Interior stewards public lands, increases environmental protections, pursues environmental justice, and honors the nation-to-nation relationship with tribes, the Department will continue to integrate strategic goals, Agency Priority Goals, learning questions, and enterprise risk mitigation strategies to more effectively serve the public.

STAKEHOLDER ENGAGEMENT

Interior engaged internal and external stakeholders in the process of developing the learning agenda. The Evaluation Officer, Statistical Official, and Chief Data Officer, along with other leaders in the Department, identified areas where evidence-building could help to accomplish Interior's mission and operations. The Department also held consultations with tribes and Alaska Native Corporations, covering topics including climate impacts, equity, investments from the Bipartisan Infrastructure Law, government-to-government consultations, and the performance goals in Interior's FY 2022-2026 Strategic Plan. These consultations and the specific feedback tribal leaders provided will be incorporated into performance and learning plans.

GUIDANCE FOR NAVIGATING THE LEARNING AGENDA

Interior's FY 2022-2026 Learning Agenda is organized within the framework of the FY 2022-2026 Strategic Plan. The learning agenda is divided into sections for each of the strategic plan's four strategic goals. Under each of the strategic objectives that support the strategic goal, the document provides associated priority learning questions and planned evidence-building activities. Where appropriate, the document notes contributing bureaus and/or offices for each question or activity. In the appendix, the reader can find select citations for research or related studies that provide context to the learning question.

A learning agenda is not a fixed plan, but rather a guide to identify learning needs and document how evidence-building may proceed. As Interior learns and builds evidence, the learning agenda will remain flexible and responsive to new information and data. The planned activities in each section identify how the Department will begin to build data and evidence to answer priority learning questions. As learning plans are adjusted, the Department will report progress in subsequent learning agenda updates and the Annual Performance Plan and Report (APP&R).

Interior will conduct foundational fact-finding, policy analysis, performance measurement and analysis, and program evaluations¹ to build evidence in response to priority learning questions. Specifically, Interior will prioritize increasing the use of formal program evaluation, a more rigorous form of evidence-building, and will publish planned significant program evaluations and results each year, per the Department's Evaluation Policy², in Interior's Annual Evaluation Plan.³

1 OMB M-19-23 (<https://www.whitehouse.gov/wp-content/uploads/2019/07/m-19-23.pdf>), page 13

2 <https://www.doi.gov/sites/doi.gov/files/elips/documents/309-dm-04.pdf>

3 <https://www.doi.gov/performance/evidence-doi>

FREQUENTLY-USED ACRONYMS

AS-IA	Assistant Secretary - Indian Affairs
BFGA	Budget, Finance, Grants & Acquisition
BIA	Bureau of Indian Affairs
BIE	Bureau of Indian Education
BIL	Bipartisan Infrastructure Law
BLM	Bureau of Land Management
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety & Environmental Enforcement
BTFA	Bureau of Trust Funds Administration
FWS	U.S. Fish and Wildlife Service
NPS	National Park Service
OCS	Outer Continental Shelf
OHC	Office of Human Capital
OLES	Office of Law Enforcement and Security
ONHR	Office of Native Hawaiian Relations
ORDA	Office of Restoration and Damage Assessment
OS	Office of the Secretary
OSDBU	Office of Small and Disadvantaged Business Utilization
OSMRE	Office of Surface Mining Reclamation and Enforcement
OWF	Office of Wildland Fire
OWPO	Orphaned Wells Program Office
PEM	Policy and Environmental Management
PMB	Policy, Management and Budget
PPP	Office of Planning and Performance Management
PRE	Public Safety, Resource Protection and Emergency Services
USBR	Bureau of Reclamation
USGS	U.S. Geological Survey



U.S. Indian Affairs Photo by Department of the Interior

STRATEGIC GOAL 1: PROMOTE WELL-BEING, EQUITY, AND JUSTICE FOR TRIBES, AMERICAN INDIANS, ALASKA NATIVES, NATIVE HAWAIIANS, AND INSULAR COMMUNITIES

The Department is a multi-faceted agency, and part of the Department's goals are to promote equity and justice for tribes, American Indians, Alaska Natives, Native Hawaiians, and insular communities. The scope of the Department's responsibilities includes fulfilling fiduciary trust responsibilities, supporting tribal self-governance and self-determination, and strengthening the government-to-government relationship between the federal government and tribal nations. Additionally, the Department funds 33 tribal colleges, universities, technical colleges, and post-secondary schools that provide quality education for students to equip them to meet the demands of the future. The Department also provides technical assistance through partnerships with Native Hawaiian and insular communities to efficiently and effectively secure and manage federal funds through planning and program activities.

This strategic goal is supported by the following strategic objectives in the Interior FY 2022-2026 Strategic Plan:

- ▶ Tribes and the U.S. Department of the Interior have an effective government-to-government relationship and trust and treaty obligations are upheld
- ▶ Tribal, Native Hawaiian, and insular communities are safe and healthy
- ▶ Tribal, Native Hawaiian, and insular communities have economic security and growth
- ▶ Bureau of Indian Education students have the education necessary for future success



DOI-IA National Native American Heritage Month Celebration 2023

**STRATEGIC
OBJECTIVE
1.1**

Tribes and the U.S. Department of the Interior have an effective government-to-government relationship and trust and treaty obligations are upheld

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ1.1.1 How can Interior improve in upholding the trust and treaty responsibilities and relationships with tribes and the federal government? (AS-IA)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.
- PLQ1.1.2 What specific improvements need to be made in coordination among federal agencies, improving notice to tribes, and ensuring consistency and accountability in achieving meaningful consultations? (AS-IA, BIA, BLM, BSEE, NPS)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.
- PLQ1.1.3 How can Interior support tribes to be successful in self-determination or self-governance? What factors influence the successful self-determination or self-governance of tribes? (AS-IA, BIA, OSMRE)
- ▶ Interior will consult on tribal data priorities through/with the Indian Country Data Working Group in FY 2024. (AS-IA)
 - ▶ To support tribal self-determination and self-governance, Indian Affairs will conduct an evaluation of the Voluntary Community Driven Relocation (VCDR) program. This evaluation will examine the implementation and outcomes of the VCDR program and build evidence around how the federal government can better support tribes faced with climate-based threats to their communities. Results from this evaluation will inform the creation of future tribal community master planning documents, community relocation logistics, and the coordination of multiple federal departments when employing an all-of-government approach. (AS-IA)
 - ▶ OSMRE is working closely with Navajo Nation staff to administer the primacy approval process. The Navajo Nation enacted primacy legislation in December 2022 to regulate surface coal mining and reclamation operations on reservation land under the jurisdiction of the Tribe. A formal application is tentatively slated for submission in late FY 2024, after which OSMRE will launch the formal review and approval process. During this process, OSMRE will be proactively documenting successful approaches to working with the tribe to apply the law and effectively employ technical assistance and training. (OSMRE)
- PLQ1.1.4 How does Interior include indigenous knowledge as part of the evidence base used in its decision-making? (AS-IA, BLM, FWS, NPS, OS/PMB/PEM/PPA, USBR, USGS)
- ▶ Interior is developing step-down guidance and training on how to include indigenous knowledge in Interior's work. The Department's Indigenous Knowledge Coordination Committee is working with subject matter experts from within and outside of government to explore this topic. (AS-IA, BLM, FWS, NPS, USBR, USGS)

**STRATEGIC
OBJECTIVE
1.2**

Tribal, Native Hawaiian, and insular communities are safe and healthy

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ1.1.1 How can the Department improve programs and services in Indian Country? (USBR)
- ▶ Reclamation will develop a performance metric related to the installation of municipal, rural, and industrial water systems on tribal lands. The performance measure will be derived from an annual numerical count of the number of tribal homes connected to potable water sources constructed by Reclamation. Interior will use this evidence to monitor progress made towards linking homes on tribal lands with water systems that meet their needs. (USBR)
- PLQ1.2.2 What support do climate resiliency grants provide for the Native Hawaiian Community's ability to cope with the effects of climate change, maintain integrity and identity, and maintain capacity for adaptation, learning, and transformation? (OS/PMB/PEM/ONHR)
- ▶ Interior will conduct an outcome evaluation of the Kapapahuliau Climate Resiliency Program which provides grants to the Native Hawaiian Community under the Inflation Reduction Act. Findings will provide actionable information for Interior to improve future financial assistance programs and climate adaptation strategies for the Native Hawaiian Community. (OS/PMB/PEM/ONHR)

**STRATEGIC
OBJECTIVE
1.3**

Tribal, Native Hawaiian, and insular communities have economic security and growth

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ1.3.1 How can Interior remove barriers to participation to the Department's contracting opportunities for Indian Economic Enterprises? (AS-IA, OS/PMB/BFGA/OSDBU)
- ▶ FY 2023, the Department revised the Acquisition Regulations related to Buy Indian Act Contracting Procedures and updated internal policy establishing Interior-wide goals for the involvement of Indian Small Business Economic Enterprises in prime contracts. In FY 2024 Interior continues to monitor the award performance against the established prime contract and subcontract goals. (OS/PMB/BFGA/OSDBU)
- PLQ1.3.2 What progress has been made and what gaps remain in improving experiences for beneficiaries of trust services? (BTFA)
- ▶ FY 2024, BTFA approved a two-year beneficiary experience plan that outlines activities, milestones, metrics, and feedback collection to improve beneficiary experience and service delivery. In FY 2025, BTFA will begin enacting this plan by creating a customer journey map to identify pain points and opportunities for service improvements in the management of Individual Indian Money accounts. Additionally, BTFA plans to analyze beneficiary feedback and other user experience data to inform the re-design and functionality of the Trust Funds Accounting System for improved service delivery and accessibility for beneficiaries. (BTFA)

**STRATEGIC
OBJECTIVE
1.4**

Bureau of Indian Education students have the education necessary for future success

Priority Learning Questions and Planned Evidence-Building Activities

PLQ1.4.1 How effectively is the Bureau of Indian Education (BIE) using data to support improving student achievement? What organizational processes and data most affect education service delivery? What processes and data are being used for decisions impacting education service delivery and what are the outcomes? (BIE)

- ▶ BIE developed an organizational plan and strategic direction in partnership with multiple stakeholders including students, families, employees, Tribal leaders, and community members. The organizational plan, which includes strategic actions and timelines, will be monitored and verified with evidence, as the team tracks progress in completing specific actions. As part of a continuous improvement process, BIE will examine results of completed actions, along with student outcome data, to see what progress has been made; and, based on this assessment, will make course corrections. Specific steps that BIE is pursuing include:
 - 1) Set the strategic direction, and establish clear policies, structures, and expectations for constituents to work toward ambitious improvement goals;
 - 2) Articulate a commitment to turning around the lowest-performing schools and advocate fiercely across audiences for these schools;
 - 3) Closely monitor, discuss, report, and act upon the progress of schools undertaking rapid improvement;
 - 4) Develop goals informed by assessments of recent performance trends, and identify practices aimed at realizing a clearly articulated vision of significantly improved student learning;
 - 5) Establish milestones for gauging progress on the goals;
 - 6) Respond to regular feedback on progress toward milestones in achieving desired results for students; and
 - 7) Capitalize on initial successes and momentum to establish effective organizational processes, structures, and interactions that contribute to continuous improvements for students. (BIE)



Monarch Butterflies Photo: Randy Jones/USFWS

STRATEGIC GOAL 2: CONSERVE, PROTECT, MANAGE, AND RESTORE NATURAL AND CULTURAL RESOURCES IN THE FACE OF CLIMATE CHANGE AND OTHER STRESSORS

Interior is a steward of more than 480 million acres of public lands accounting for almost 20 percent of the Nation's land mass, and over 760 million acres of cooperatively managed marine areas comprising approximately 25 percent of U.S. waters. Interior ensures that America's natural endowment – the natural land and water resources of the United States – is conserved for the benefit, use, and enjoyment of current and future generations. In the face of climate change and other stressors, Interior uses the best available science, evidence-based natural resource management techniques, technology, engineering, and partnerships to guide stewardship of public lands and waters. The Department, in collaboration with state, local, and tribal governments, as well as agricultural and forest landowners, anglers, non-profit organizations, and other key stakeholders, is working to tackle climate change, stem the decline of biodiversity, and improve equitable access to nature. The Department will continue to support conservation and restoration in a manner that is faithful to its guiding principles—building a locally led movement that benefits people and the economy, is anchored in science and indigenous knowledge, honors tribal sovereignty, and respects private landowners.

This goal is supported by the following strategic objectives in the FY 2022-2026 Interior Strategic Plan:

- ▶ Lands, waters, and heritage are conserved for present and future generations
- ▶ Species, habitats, and ecosystems are protected, sustained, and healthy
- ▶ People find enjoyment and take pride in our lands, waters, and heritage



New Melones Lake Photo by Bureau of Reclamation

**STRATEGIC
OBJECTIVE
2.1**

Lands, waters, and heritage are conserved for present and future generations

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ2.1.1 To what extent are vulnerability assessment frameworks being used across the Department? To what extent are they successful at capturing vulnerabilities and risks of climate change impacts, and in projecting vulnerability and risk into the future? (BLM, BSEE, USBR, OS/PMB/PEM/PPA)
- ▶ Interior will conduct a formative evaluation that will assess how Department's vulnerability assessment frameworks impact the planning and implementation of vulnerability reduction efforts in programs and activities. The evaluation will include consulting and engaging with tribes and affected communities to develop a baseline for subsequent monitoring and assess improvements in climate conditions. Under the direction of Interior's Climate Task Force, surveys, interviews, and focus group discussions among program stakeholders will be conducted. The evaluation will seek to understand the need for the assessment frameworks and what improvements should be considered. (OS/PMB/PEM/PPA)
- PLQ2.1.2 How can Interior design and adaptively manage conservation, restoration, and resilience activities to ensure healthy landscapes and the provisioning of ecosystem services? Which measures and indicators best capture and facilitate an assessment of the environmental, economic, and social outcomes and co-benefits of these activities? How can Interior coordinate efforts to collect shared data that provide the necessary evidence behind these measures and indicators and that apply to several geographies/ecosystems and across multiple bureaus and offices? How can Interior strategically leverage funding towards these activities? (BLM, FWS, OS/PMB/PEM/ORDA, OS/PMB/PEM/PPA)
- ▶ The Bipartisan Infrastructure Law (BIL) Ecosystem Restoration program is conducting a pair of assessments (component A and B) that will examine the implementation, outputs, and outcomes of their grant distribution for bureau-led ecosystem restoration projects. Component A aims to identify lessons learned from Interior-led, cross-bureau implementation of the BIL-funded ecosystem restoration efforts and develop best practices to inform ongoing and future, large-scale, Interior-wide ecosystem restoration programs. BIL-ER has contracted a third party to conduct this assessment and anticipates a final report by October 2024. Component B will develop a shared, cross-bureau framework to assess landscape-level outcomes of restoration activities and test the framework by applying it to a subset of BIL-funded restoration projects. This framework will be developed collaboratively among USGS, BLM, FWS, NPS, and BIA from December 2024 – September 2028. (OS/PMB/PEM/PPA)
- PLQ2.1.3 To what extent are various restoration techniques effective at restoring habitat in the long-term? (BLM, USGS)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

- PLQ2.1.4** What maintenance is required, and with what frequency, to ensure that passive treatment systems constructed to address water pollution discharges from abandoned mine lands continue to be effective? (OSMRE)
- ▶ OSMRE has established a GIS database containing passive treatment systems that received OSMRE construction funds to treat water flowing from AML. The database currently includes information on system location and status. Moving forward, OSMRE will populate other fields in the GIS database – such as passive treatment type, age, and areal extent – by conducting field investigations and other data gathering activities. In addition, follow-up field investigations and data gathering will help OSMRE develop and update the various guidance documents necessary for conducting the grant program and provide better estimates on future fund requests for the Passive Treatment Protection Program. (OSMRE)
- PLQ2.1.5** What is the best approach to identify and document orphaned wells on federal, tribal, state, and private land, what stakeholders are involved, and how can Interior integrate and leverage this data with other information to enable a full sight picture of legacy pollution remediation requirements and priorities nationwide? (BLM, OS/PMB/PEM/OWPO, USGS)
- ▶ The Orphaned Wells Program Office has several evidence-building activities underway in FY 2024 including: a state data discovery project, a data strategic plan, a dashboard, and an orphaned wells database. The OWPO completed the state data discovery project in FY 2024 and created a point-in-time resource survey of all current orphaned wells data published by states that received initial state grants. The OWPO data strategic planning effort launched in FY 2024 and will help OWPO identify actions necessary to improve data collection and data use to meet internal and external stakeholder needs. Development of a data dashboard, which also started in FY 2024, will complement the strategic planning effort and improve data availability by providing a public facing dashboard to present data collected by OWPO. Throughout FY 2024, OWPO and USGS are partnering to build on the orphaned wells inventory, which USGS first completed in FY 2022, and create a database to support OWPO. The database development effort will focus on key areas of inventorying orphaned oil and gas wells, analyzing plugging and remediation activities and associated reductions in emissions, and providing information to support future methods to prioritize locations and wells for plugging. (OWPO)
- PLQ2.1.6** What are the potential long-term benefits from the funds provided by Bipartisan Infrastructure Law on the Abandoned Mine Lands for communities and the environment in coal-mining regions and how can OSMRE accurately quantify and track these benefits (health, safety, and economic)? How can Interior ensure that coalfield communities have a voice in how the funds are spent and that the health and safety of the communities and the environment are adequately addressed? (OSMRE)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

**STRATEGIC
OBJECTIVE
2.2**

**Species, habitats, and ecosystems are protected,
sustained, and healthy**

Priority Learning Questions and Planned Evidence-Building Activities

PLQ2.2.1 How can Interior achieve a sustainable native seed development program that enhances future storage capacity and limits external seed purchasing? What are the most effective strategies to increase native seed availability for restoring public lands to combat climate change and repair landscapes after wildfires or wildland fires? (BLM)

- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

PLQ2.2.2 What is the impact of U.S. Fish and Wildlife Service's international species conservation assistance, and what evidence is needed to improve its effectiveness? (FWS)

- ▶ A multi-year FWS contract is underway with the Canadian Centre for Evidence-Based Conservation (CCEBC) to systematically assess the effectiveness of interventions funded by USFWS grants in foreign countries, including efforts to counter wildlife crime for species targeted by the agency's international assistance. In FY 2024, this collaboration published an evidence map in the journal *Ecological Solutions and Evidence*, which systematically reviewed published literature related to wildlife crime interventions. In FY 2025, FWS and CCEBC intend to continue evidence syntheses and related activities, as well as collaborate with Conservation Evidence (Cambridge, UK) to produce technical assistance, guidance, and tools for FWS and partner organizations to use and build evidence where needed. As resources allow, FWS will additionally build upon pilot efforts to model the return-on-investment of its financial assistance, and conduct program planning and design (e.g., logic modeling) for each FWS International Affairs financial assistance listing, in alignment with grantmaking regulation 2 CFR §200.202. (FWS)

PLQ2.2.3 To what extent are personnel and methodologies effective in assessing whether invasive plant and animals are under control on Interior-managed lands and waters? (BLM, FWS, NPS, OS/PMB/PEM/PPA, USBR)

- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.
- ▶ Interior will conduct an invasive species program review to include field level surveys and interviews; program design/logic model(s) to describe operations on the ground; data gathering and analysis of bureau invasive species data management processes and results from annual reporting of performance measures for invasive species control over time; assessment of monitoring techniques (post-treatment effectiveness, population suppression, meeting resource management objectives); and policy review (as it pertains to control, data management, monitoring, and associated training). (OS/PMB/PEM/PPA)

- ▶ Reclamation will survey, assess, and collect data pertaining to acres of land that are infested with targeted invasive plant species on lands under USBR management in the Lower Colorado Basin Region. This activity will establish baseline data necessary for long-term tracking, managing, and reporting on these invasive plant species. (USBR).
- ▶ BLM will update data and analyses which address the health of upland rangelands (terrestrial), rivers and streams (lotic), and wetlands and riparian areas. Over the next two years, BLM will develop additional indicators and performance measures to estimate the national condition and trend of stream and rivers, enhancing available public land statistics. (BLM)

PLQ2.2.4 What frameworks are needed for assessing the effectiveness of co-stewardship of lands? (AS-IA, OS/PMB/PEM/PPP)

- ▶ Interior is collaborating with an academic partner (Portland State University) to develop two key pieces of evidence related to co-stewardship agreements between the federal government and tribes. First, a framework which explores the theoretical basis of co-stewardship and a guide which delineates different types of co-stewardship arrangements based on relative levels of decision-making participation and service integration. Second, a rubric for performance monitoring and evaluation across these different co-stewardship arrangements. Both deliverables will be completed by the end of FY 2024. (AS-IA, OS/PMB/PEM/PPP)

**STRATEGIC
OBJECTIVE
2.3**

**People find enjoyment and take pride in our lands, waters,
and heritage**

Priority Learning Questions and Planned Evidence-Building Activities

PLQ2.3.1 How effective is Interior at improving customer experiences via select High Impact Service Provider programs? (NPS)

- ▶ The NPS Office of Information Resources and Interpretation is conducting on-going surveys of visitors using the Volunteer.gov website, a shared platform managed by NPS, to assess their experience and satisfaction with the service the site provides. The questions comprising the survey include those required by OMB as part of the site's designation as a High Impact Service Provider (HISP), as well as others that will directly assess specific areas of the site that are of high priority to overall user experience. NPS shares this information internally to improve customer service delivery and inform strategic decision-making and planning. Additionally, NPS reports this data on a quarterly basis to OMB as a HISP requirement.⁴ (NPS)

PLQ2.3.2 What does visitation look like across lands and waters managed by Interior? Who is and is not visiting? To what extent do barriers impact different populations? (BLM, FWS, NPS, OS/PMB/PEM/PPA, USBR)

- ▶ USBR will assess the best alternative methods to measure customer satisfaction related to recreation sites. USBR will analyze the effectiveness of the survey implementation and look for tools and processes that are reliable, repeatable across the region(s), and defensible. Information collected from the surveys will be used to address any immediate actionable feedback regarding day-to-day operations and improve overall customer satisfaction. USBR will also review the survey results and examine the data collection methods and data quality. (USBR)
- ▶ FWS is conducting an on-going assessment of the Southern California Urban Wildlife Refuge Program, which supports a network of non-governmental organizations who are working to connect underserved communities in San Diego, Los Angeles, and Ventura with nearby urban wildlife refuges. This assessment aims to determine whether and how the program is achieving desired outcomes at the program, project, and participant level. Early results indicate that projects in all locations tend to report similar positive outcomes including:
 - 1) improved participant perception of the value of urban open space and wildlife;
 - 2) greater youth interest in science oriented careers;
 - 3) increased volunteer support for neighborhood clean-up projects. (FWS)



Wichita Mountains National Wildlife Refuge in Oklahoma Photo by: Quinton Smith/USFWS

STRATEGIC GOAL 3: FUTURE ENERGY NEEDS WILL BE INCREASINGLY MET THROUGH RENEWABLE AND SUSTAINABLE SOURCES

As manager of one-fifth of the nation's mineral and energy resources, including over 3.2 billion acres of the Outer Continental Shelf, Interior plays a critical role in meeting America's energy needs and moving the nation toward a clean energy future. The Department's lands and waters play an important role in contributing to the nation's energy production. From oil and natural gas to renewable geothermal, hydroelectric, solar, and wind power, a comprehensive energy strategy ensures responsible energy development. Projects on Interior-managed lands are producing affordable energy to power homes, vehicles, and businesses; creating jobs; and providing on average more than \$10 billion in annual revenue supporting federal, state, local, and tribal economies. The Department is committed to responsible energy and mineral development and resource use. As a steward of the nation's natural resources, Interior strives for careful planning of conventional energy development projects, a transition to clean technologies to meet the energy needs of the future, and science-informed decisions on resource distribution to support communities in need. In carrying out these activities, Interior will contribute to solutions to address climate change, strengthen and decarbonize the nation's economy, and help communities transition to a clean energy future.

This goal is supported by the following strategic objectives in the FY 2022-2026 Interior Strategic Plan:

- ▶ Future energy needs will be increasingly met through renewable and sustainable sources
- ▶ Current energy needs are met through balanced resource use
- ▶ Land, water, and non-energy mineral resources support the diverse needs of communities



New Melones Lake Photo by Bureau of Reclamation

**STRATEGIC
OBJECTIVE
3.1**

Future energy needs will be increasingly met through renewable and sustainable sources

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ3.1.1 What are the critical processes to establish or revise to effectively build Interior's offshore wind energy capabilities? (BOEM, BSEE)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.
- PLQ3.1.2 What are the environmental impacts associated with the construction and initial operations of the first tranche of offshore windfarms in federal waters, and what mitigation strategies can be undertaken to allow for long term sustainability and mutual co-existence of offshore wind with commercial and recreational fisheries? (BOEM, BSEE)
- ▶ Interior will conduct an outcome evaluation of the Kapapahuliau climate resiliency program which provides grants to the Native Hawaiian Community under the Inflation Reduction Act. Findings will provide actionable information for Interior to improve future financial assistance programs and climate adaptation strategies for the Native Hawaiian Community. (OS/PMB/PEM/ONHR)
 - ▶ BOEM is conducting a foundational fact-finding exercise to apply the information gained from public input from the fishing community, stakeholder meetings, and public comments on draft guidance to inform plans and environmental reviews for mitigating impacts from offshore wind projects on fisheries. BOEM is finalizing Fisheries Mitigation Guidance for Offshore Wind Development and continuing work to support the development of overarching federal guidance for fisheries mitigation for offshore wind development. At the state level, some regulatory authorities have required offshore wind developers to establish compensatory funds to offset potential impacts to the fishing industry, fund research programs aimed at better understanding those potential impacts, and provide navigation enhancements and safety training; however, mitigation has differed from project to project, and state by state. To standardize mitigation approaches and find effective strategies, BOEM is working in consultation with the National Marine Fisheries Service and affected coastal states. (BOEM)

**STRATEGIC
OBJECTIVE
3.2**

Current energy needs are met through balanced resource use

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ3.2.1 How can Interior strengthen understanding of the carbon sequestration process and roles to ensure an appropriate oversight program for activities on the Outer Continental Shelf? (BSEE, BOEM)
- ▶ Building off the FY 2022 Environmental Program Report and FY 2024 Environmental Program Retreat, BOEM plans to conduct an evaluation of its First-in Class Environmental Program. This multi-year effort will evaluate and improve BOEM's public participation processes and develop metrics to monitor effectiveness, transparency, and inclusivity. In FY 2025, BOEM plans to engage an independent third party to develop evaluation questions, evaluation methods, improvement initiatives, and tools that measure success across all facets of the program. (BOEM)
 - ▶ BOEM and BSEE are working together on carbon sequestration regulations, which are intended to provide sound regulatory oversight by both bureaus and to assure the American public that carbon sequestration operations on the OCS will be safe and protective of the environment. Extensive outreach has occurred with other governments, agencies, and various stakeholders to inform the development of the rule to support an appropriate oversight program. Concurrently with work on the rule, BOEM is developing a Carbon Sequestration Program to ready itself for program implementation. BOEM is using specialized geological, environmental, and offshore energy expertise to develop a comprehensive regulatory framework that prioritizes safe operations and protecting the environment on the OCS. BOEM continues to collaborate with other governments and agencies and with stakeholders with expertise in offshore geologic carbon sequestration as it develops its program. (BOEM, BSEE)
- PLQ3.2.2 What is an effective approach to build corporate-level dataset monitoring procedures, diagnostic resources, and data science tools that could improve hydropower power program efficiency and effectiveness to allow Interior to better assess and refine asset management strategies and implementation? What is an effective way to share and aggregate high-resolution datasets for the hydropower program in a secure, timely manner? (USBR)
- ▶ USBR is undertaking pilot projects in collaboration with federal and industry partners to investigate how corporate-level dataset monitoring, diagnostic resources, data science tools might advance its hydropower program. Pilot projects are ongoing at several locations and data has been used for exploratory facility monitoring, reporting, and analysis. Complementary activities include hydropower monitoring and analytics program scoping, assessments of predictive analytics tools, ongoing development of a comprehensive Hydropower Program Data Management strategy, and procurement of contractor services to support data management activities. (USBR)

**STRATEGIC
OBJECTIVE
3.3**

**Land, water, and non-energy mineral resources support
the diverse needs of communities**

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ3.3.1 How effective are Interior’s processes for reviewing and approving feasibility studies for water reclamation and reuse projects? (USBR)
- ▶ Interior is conducting an assessment of a subset of water reclamation and reuse projects. The assessment will help determine the extent to which the review process for associated feasibility studies followed established procedures and how the process was impacted by timeframes set by statute. Efficiently managing the feasibility study review process helps to increase the number of eligible reclamation and reuse projects which, in turn, benefits water conservation capacity to address drought. This assessment will be used to ensure that Title XVI feasibility studies are reviewed as effectively as possible to advance the development of new projects under the program. The assessment lead will select a representative sample of Title XVI feasibility studies and determine if Reclamation currently meets the time frames identified in the established process for reviewing and approving feasibility studies. Results will be shared internally with the Title XVI Program Coordinator and Title XVI Standing Workgroup so that any revisions to program procedures can be developed. (USBR)
 - ▶ Interior will investigate feasible performance measures to inform the WaterSMART Drought Response Program’s objectives and assess the program’s performance. (USBR)
- PLQ3.3.2 What are the data collection shortfalls that inhibit leadership’s decision making for the locatable mineral mining program? (BLM)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department’s ability to track and use evidence for decisions.
- PLQ3.3.3 What can Interior do to ensure effective stewardship of critical minerals in frontier areas of the Outer Continental Shelf? (BOEM; BLM)
- ▶ BOEM is pursuing two primary activities to improve the oversight of potential critical minerals exploration, leasing, and development on the Outer Continental Shelf (OCS); a comprehensive program-specific technical reference, and new standard operating procedures. BOEM is preparing the Critical and Hard Offshore Mineral Programmatic Reference focused on marine mineral activities within the U.S. exclusive economic zone. The reference will draw on existing domestic and international data, industry and market trends, and comparative regulatory frameworks and policies. As a complement to the Reference, BOEM continues to interpret existing regulations, not substantially revised since the late 1980’s, in context of international standards and practices and translating broad domestic regulations into new standard operating procedures. BOEM will identify areas for potential improvement or regulatory clarification when developing new standard operating procedures. (BOEM)

- ▶ BOEM is committed to better understanding the location of critical mineral-bearing deposits on the OCS and their associated ecological communities. BOEM will continue to gather information to inform environmental impact analyses from future potential exploration and leasing activities, work on the National Offshore Critical Mineral Inventory, and conduct baseline assessment and environmental characterization work in OCS regions. BOEM is integrating the best available scientific and technical information, and coordinating with agency partners like USGS and the National Oceanic and Atmospheric Administration, to collect baseline environmental and resource information on potential critical bearing deposits on the OCS. BOEM is also engaging with communities that might be affected by this type of development, including indigenous communities and state and territorial governments. (BOEM)

PLQ3.3.4 How can Interior improve planning for water resources and supplies? (USBR)

- ▶ Reclamation will conduct a study to assess the efficacy of various options for an integrated approach to water supplies and aquatic resources. The Walla Walla River Basin study begun in FY2023 and will be ongoing through FY2025. The study will review, inform, and assist in addressing water resource issues and climate change in the Walla Walla River Basin. (USBR)



Fall foliage from the Alta Vista Trail on Mount Rainier Photo by: Brent Lawrence/USFWS

STRATEGIC GOAL 4: SERVE AND HONOR THE PUBLIC TRUST

Trust and confidence are cornerstones of Interior’s unique and expansive mission, which includes a geographically distributed workforce, a vast set of management responsibilities, and diverse stakeholders with varying needs and responsibilities. The American people have entrusted Interior with the sustained use of critical natural resources, the preservation of iconic places, and the science to ensure robust decision making, all of which require assurance and fairness at the highest levels. This includes promoting a culture of ethical and inclusive decision-making grounded in the best available science to ensure that Departmental operations are safe, effective, and optimized for the changing environment. Beginning with a workforce that mirrors the diversity of the nation that it serves, Interior will prioritize service delivery and performance improvement to redress inequities and systemic barriers to environmental justice and participation in Interior’s programs and activities. This includes actively seeking ways to create opportunities for traditionally underserved communities to enjoy increased access to and benefits of public lands and waters, resources, and opportunities.

This supported by the following strategic objectives:

- ▶ People, communities and organizations benefit from Interior data, science, and information
- ▶ Access to opportunities, services, and resources is equitable and just
- ▶ The Interior workforce is diverse, safe, engaged, and committed to the Interior mission
- ▶ There is confidence and satisfaction in the U.S. Department of the Interior



AZ-Pronghorn on native grassland Photo by BLM

**STRATEGIC
OBJECTIVE
4.1**

People, communities and organizations benefit from Interior data, science, and information

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ4.1.1 How can Interior improve the public benefit of the Department's data, science, and information resources, especially among vulnerable communities? (USBR, USGS)
- ▶ USGS is investigating current and potential “use cases” for Earth Mapping Resources Initiative (MRI) data and products, using both internal subject matter expert input and selected stakeholder input. For current use cases, interviews and surveys will focus on identifying what Earth MRI products are being used, how beneficial that information is, and whether different types of data or products would be more useful. For potential use cases (i.e., instances where scientists or stakeholders believe Earth MRI data should be useful in the future), interviews and surveys will focus on “bottom-up” descriptions of what data would be most helpful. Stakeholder groups will be interviewed or surveyed using standard social science methods and following appropriate guidance for collection of data from human subjects. (USGS)
 - ▶ Reclamation is expanding the Reclamation GIS Data Manager Framework to meet growing needs for standardized, accurate, well maintained, and easily accessible geospatial data. GIS Data Managers are responsible for developing the workflows required to integrate, maintain, and document local data and expertise in bureau-wide resources, such as the Enterprise Asset Registry – an inventory of Reclamation's dams, reservoirs, roads, trails, canals, recreation areas, boat ramps, and other assets. The workflow process enables data exploration throughout Reclamation and will improve public access to information about recreation opportunities and more through publication in the Reclamation Information Sharing Environment (RISE) and Interior GeoPlatform. The GIS Program is currently supporting Reclamation's Asset Management Division's efforts to build their asset inventories. Once they are completed, they can be combined with demographic data, Census data, or additional information from other entities in a GIS program to provide additional insights on asset management. For example, this information could be used to increase access to recreation amenities for vulnerable communities. (USBR)
 - ▶ Reclamation is developing the Reclamation Information Sharing Environment (RISE) and adding datasets to RISE to improve public access to Reclamation's mission-related data, including ongoing monitoring and research results related to water operations, hydropower, water quality, endangered and invasive species, and infrastructure. Work will include engagement with stakeholders to understand data access needs. (USBR)

PLQ4.1.2 How can Interior achieve better data and science equity, and increase the use of evidence and data in Interior's decision making? (NPS, USBR, USGS)

- ▶ Reclamation is developing a new Reclamation Manual Directive and Standard that provides guidance and standards for a Reclamation Data Inventory (DAT-001-01). This will help data and system owners improve the discoverability of bureau data assets and ensure that data is more easily identified and accessible as evidence for use in Interior's decision making. Making data easier to find and access will also facilitate public use of data for science and information. Development of a Reclamation Data Inventory will facilitate harvesting of data into the Department Enterprise Data Inventory and into data.gov for open use and public benefits. (USBR)

PLQ4.1.3 How can Interior improve and expand the co-production of scientific or other knowledge to meet customer needs? (FWS, USBR, USGS)

- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

**STRATEGIC
OBJECTIVE
4.2**

Access to opportunities, services, and resources is equitable and just

Priority Learning Questions and Planned Evidence-Building Activities

PLQ4.2.1 How can Interior assess and remove barriers to participation and ensure equitable access to the Department's grant and contracting opportunities for historically underrepresented populations? (OS/PMB/BFGA/OSDBU, OS/PMB/BFGA/PGM, OS/PMB/HC/OHC)

- ▶ Interior is conducting an initial assessment of data related to grant awards and applications. This assessment will involve extensive stakeholder outreach, surveys, and other data gathering to determine whether a specific step in the grant award and management process is correlated with an increase or decrease in the number of grantees from underrepresented groups. Interior will use results from this assessment to improve access to the Department's grant and contracting opportunities for historically underrepresented populations. (OS/PMB/HC/OHC)
- ▶ Interior is assessing the results of three OMB Customer Experience Information Collection Surveys, developed and deployed by the Department in FY 2023. OSDBU will use the assessment to better understand small business vendors, barriers to participation within the contracting process, and how Interior counseling supports their participation. The information collected will be used to refine service delivery, including communication materials, supporting reference materials, and digital products associated with the Interior's Small Business Program. (OS/PMB/BFGA/OSDBU)

PLQ4.2.2 What does Interior know, and need to know, about baseline conditions of environmental justice and opportunities, services, and resources for underserved communities? (OS/PMB/HC, OS/PMB/PEM)

- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

**STRATEGIC
OBJECTIVE
4.3**

The Interior workforce is diverse, safe, engaged, and committed to the mission

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ4.3.1 To what extent are the Department’s recruitment and hiring practices adequate to attract and retain a diverse and highly skilled workforce? (BLM, NPS, OS/PMB/HC/OHC, USBR)
- ▶ Interior is using existing demographic data from the different points in the employee life cycle to establish a baseline for Department-level and organization-level performance in workforce diversity. Interior’s DEIA Council will review performance of other Federal agencies and National and state-level census information to benchmark the relative success of Interior in attracting, hiring, promoting, and retaining talent. Using this information, Interior decision makers can identify gaps and opportunities to improve diversity, with appropriate outcomes based on differences in mission area, geography, and other factors. Data insights will inform requirements for more in-depth analysis, identification of potential barriers, and need for immediate corrective action. Interior will also assess effective models in promoting federal workforce diversity, consult with subject matter experts in academia and industry, and use findings to identify promising strategies for the Department. (supporting PLQs 4.3.1 and 4.3.3) (OS/PMB/HC/OHC)
- PLQ4.3.2 To what extent do housing availability and related considerations affect the wildland fire management workforce? (BLM, NPS, OS/PMB/PRE/OWF)
- ▶ The Wildland Fire Management (WFM) program, under the coordination of the Office of Wildland Fire, will survey Interior’s WFM workforce about their experiences with housing. This foundational fact-finding will help inform Interior’s investments in, and policies concerning, housing for personnel. OWF — working with the Office of Human Capital — will complete a survey of active personnel about their experiences with housing throughout their time working in WFM, including government and private housing. The survey will ask questions to better understand how such things as housing availability near permanent duty stations and challenges in particular locations affect employees. OWF will analyze the responses to form an assessment of the sufficiency of the current housing market in relation to our workforce and the importance of housing options to different segments of the workforce. This information will be useful in understanding how the Department’s approach to personnel housing could be improved. The WFM program will use the survey results to develop recommendations to better address the needs of the workforce with respect to their housing, through capital investments (e.g., location, construction, and maintenance of facilities) and other tools. This survey is expected to help inform policies and budget proposals in FY 2024, FY 2025, and later years. (OS/PMB/PRE/OWF)

- PLQ4.3.3 To what extent do housing availability and related considerations affect the wildland fire management workforce? (BLM, NPS, OS/PMB/PRE/OWF)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.
- PLQ4.3.4 What investments are needed to support and improve behavioral health and wellbeing services for first responders across the Department? (OS/PMB/PRE)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.

**STRATEGIC
OBJECTIVE
4.4**

**There is confidence and satisfaction in the U.S.
Department of the Interior**

Priority Learning Questions and Planned Evidence-Building Activities

- PLQ4.4.1 How can the Department's Office of Law Enforcement and Security advance equity with respect to law enforcement interactions with the public? (NPS, OS/PMB/PRE/OLES)
- ▶ Plans for evidence-building are under development. Interior will strive to leverage existing work underway while expanding the Department's ability to track and use evidence for decisions.



Smithsonian Folklife Festival Photo by: Department of the Interior

APPENDIX: RELATED STUDIES AND RESEARCH

Below, Interior is providing select citations to recent studies or research that have relevance to priority learning questions in the FY 2024 Annual Update to Interior's Learning Agenda. This citation list is not intended to be a literature review for each topic. Readers having interest in particular subject areas may find the citations to be a useful jumping off point for further investigation.



STRATEGIC OBJECTIVE 1.2

Tribal, Native Hawaiian, and insular communities are safe and healthy

Related Studies and Research

Land management explains major trends in forest structure and composition over the last millennium in California's Klamath Mountains (Knight et. al. 2022).⁵ This study by the U.S. Geological Survey (USGS), the Yurok and Karuk Tribes, and others suggested that traditional ecological Indigenous practices to remove forest fuels in what is now northern California created healthier forests.

STRATEGIC OBJECTIVE 1.4

Bureau of Indian Education students have the education necessary for future success

Related Studies and Research

Section 8302 of the Elementary and Secondary Education Act of 1965 (ESEA)⁶, as amended by the Every Student Succeeds Act (ESSA)⁷, requires states to develop state plans. The Department of Education officials stated that an ESSA state plan is optional for the BIE; however, BIE leadership determined that the BIE will develop an ESSA state plan. The purpose of BIE's state plan is to serve as a roadmap and internal guide to school improvement for BIE-funded schools. The BIE implements its accountability system consistent with 25 C.F.R. Part 30⁸ and its Agency Plan⁹. The BIE follows its Agency Plan as a roadmap for school improvement and to support their lowest performing schools.

5 <https://www.pnas.org/doi/10.1073/pnas.2116264119>

6 [Title VIII General Provisions - Office of Elementary and Secondary Education](#)

7 [Every Student Succeeds Act \(ESSA\) | U.S. Department of Education](#)

8 <https://www.ecfr.gov/current/title-25/chapter-I/subchapter-E/part-30>

9 <https://www.bie.edu/topic-page/bie-essa-agency-state-plan>

STRATEGIC OBJECTIVE 2.1

Lands, waters, and heritage are conserved for present and future generations

Related Studies and Research

Keeping it Wild 2: An updated interagency strategy to monitor trends in wilderness character across the National Wilderness Preservation System (USDA Rocky Mountain Research Station, 2015).¹⁰ Keeping It Wild 2 is an interagency strategy to monitor trends in selected attributes of wilderness character based on lessons learned from 15 years of developing and implementing wilderness character monitoring across the National Wilderness Preservation System.

Fifth National Climate Assessment (USGCRP, 2023).¹¹ Required by the Global Change Research Act of 1990, the U.S. Global Change Research Program provided the fifth National Climate Assessment to Congress and the President that, per the law, integrates, evaluates, and interprets the findings of the Program; analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity; and analyzes current trends in global change, both human-induced and natural, and projects major trends for the subsequent 25 to 100 years.

Plan to Conserve Global Forests: Critical Carbon Sinks (US Department of State, 2021).¹² This report presents the USG approach to conserving critical global terrestrial carbon sinks, a plan to catalyze the global effort to conserve and restore the forests and other ecosystems that serve as critical carbon sinks.

Department of the Interior Climate Action Plan (DOI 2024).¹³ This plan presents actions that Interior is currently or will undertake to address the impacts and threats from climate change. The plan identifies Interior's actions for adaptation and resiliency and its five primary vulnerabilities.

Department of the Interior Climate Adaption and Resilience Plan Progress Report (DOI 2022).¹⁴ This plan outlines how the Department is using a science-based approach to address and mitigate climate change risks, impacts, and vulnerabilities.

Opportunities to Accelerate Nature-Based Solutions: A Roadmap for Climate Progress, Thriving Nature, Equity, & Prosperity. (White House Council on Environmental Quality, White House Office of Science and Technology Policy, White House Domestic Climate Policy Office, 2022).¹⁵ This report outlines strategic recommendations to unlock the full potential of nature-based solutions to address climate change, nature loss, and inequity.

Climate Benefits, Co-benefits, and Trade-offs of Green Infrastructure: A systematic literature review (Journal of Environmental Management, 2021).¹⁶ This research made recommendations for planning and design of green infrastructure to maximize multiple benefits and minimize trade-offs for climate benefits and co-benefits.

Operation and Maintenance of Passive Acid Mine Drainage Treatment Systems: A Framework for Watershed Groups (WV Department of Environmental Protection, 2014).¹⁷ This report discussed the need for watershed groups to develop plans for the operation and maintenance (O&M) of all their projects, including passive treatment systems, and to gather resources to carry out those plans. Sections include institutional practices supporting O&M, O&M considerations through the project life cycle, common best management practices for AMD remediation and their maintenance needs, post construction inspection, monitoring, and operation, and postconstruction major maintenance.

10 <https://www.fs.usda.gov/rmrs/publications/keeping-it-wild-2-updated-interagency-strategy-monitor-trends-wilderness-character>

11 <https://nca2023.globalchange.gov/>

12 https://www.whitehouse.gov/wp-content/uploads/2021/11/Plan_to_Conserve_Global_Forests_final.pdf

13 <https://www.sustainability.gov/pdfs/doi-2024-cap.pdf>

14 <https://www.doi.gov/ppa/climate>

15 <https://www.whitehouse.gov/wp-content/uploads/2022/11/Nature-Based-Solutions-Roadmap.pdf>

16 <https://www.sciencedirect.com/science/article/pii/S0301479721006459?via%3Dihub>

17 https://dep.wv.gov/WWE/Programs/nonptsources/Documents/Projects/OM_Manual.pdf

STRATEGIC OBJECTIVE 2.2

Species, habitats, and ecosystems are protected, sustained, and healthy

Related Studies and Research

State of the Birds (USFWS, USGS, NPS, USFS, AFWA, and 24 other partners in the U.S. Committee of the North American Bird Conservation Initiative).¹⁸ This report calls attention to drastic declines of some of the most common birds in our nation's forests, grasslands, coastlines, and other habitats. A consortium of bird conservation organizations and wildlife agencies released the 2022 State of the Birds report in October 2022. The consortium and report may be a model for reviewing the condition of fish and wildlife habitats and populations more broadly as part of the America the Beautiful campaign.

Seeds of Success: A conservation and restoration investment in the future of U.S. lands (Barga et al. 2020).¹⁹ The researchers identified 662 fires at 631 sites from the Seeds of Success program which have burned since collection. If fire continues at the pace observed since 2011, an estimated 14% of collection sites will burn by 2050 and over 24% by 2080, putting genetic diversity at risk in areas where fire is linked with invasion. Analysis of 14 native forb species from the western United States found that many collections were from the warmest and driest portions of their range or from areas at the highest risk of wildfire, subsequent invasion, and local extinction.

Seed storage: maintaining seed viability and vigor for restoration use (De Vitis et al., 2020).²⁰ This paper provided an overview of the key concepts in seed storage and the steps to take for effective storage of native seeds for restoration use.

An Assessment of Native Seed Needs and the Capacity for their Supply (National Academies of Science, Engineering, and Medicine, 2023).²¹ This investigation, commissioned by the BLM, identifies obstacles and opportunities in building a robust native seed supply chain.

What is the evidence that counter-wildlife crime interventions are effective for conserving African, Asian and Latin American wildlife directly threatened by exploitation? A systematic map protocol (Rytwinski et al., 2021).²² This paper is a pre-registered report for a systematic mapping protocol to assess the evidence that counter-wildlife crime interventions are effective at protecting targeted species. Systematic maps are a form of evidence synthesis that aims to provide an accurate description of the evidence base relating to a particular question. To our knowledge, this is the first systematic evidence review commissioned by USFWS, and findings are expected to be published as a scientific article in 2023.

Vertebrates on the brink as indicators of biological annihilation and the sixth mass extinction (Ceballos, Ehrlich, & Raven, 2020).²³ This paper discusses impacts of the sixth mass extinction, suggesting thousands of populations of critically endangered vertebrate animal species have been lost in a century due to human numbers and consumption rates.

Recovery Report to Congress (FWS).²⁴ Published on a biennial schedule, the Recovery Report to Congress provides an update on the progress toward recovery of all domestic threatened and endangered species protected under the Endangered Species Act (ESA) for which the U.S. Fish and Wildlife Service has lead responsibility.

Obtaining a Balanced Area Sample for the Bureau of Land Management Rangeland Survey (Yu, Li, Karl, & Krueger, 2020).²⁵ This study describes a sampling procedure that is designed to obtain spatially balanced area samples that are also representative probability samples in the presence of auxiliary variables.

¹⁸ <https://www.stateofthebirds.org/>

¹⁹ <https://www.fs.usda.gov/treearch/pubs/59993>

²⁰ <https://onlinelibrary.wiley.com/doi/full/10.1111/rec.13174>

²¹ <https://nap.nationalacademies.org/catalog/26618/an-assessment-of-native-seed-needs-and-the-capacity-for-their-supply>

²² <https://besjournals.onlinelibrary.wiley.com/doi/10.1002/2688-8319.12104>

²³ <https://www.pnas.org/doi/10.1073/pnas.1922686117>

²⁴ <https://fws.gov/library/collections/recovery-reports-congress>

²⁵ <https://link.springer.com/article/10.1007/s13253-020-00392-5>

Funding evidence-based conservation (Parks et al. 2022).²⁶ This paper describes several practical approaches for conservation grant-making programs to incorporate evidence into their application process. The primary message of the letter, co-authored by conservationists from 25 different organizations including USFWS, is the importance of demonstrating conservation project proposals are based on the best available evidence. Supplementary materials include guidance for funders on assessing evidence use in conservation applications.

Transforming Conservation: A Practical Guide to Evidence and Decision Making (Sutherland ed. 2022).²⁷ This Open Access scholarly work describes how evidence-based decision making is changing and improving nature conservation. The primary purposes of the edited volume, including chapter contributors from USFWS, is to provide practical solutions on how to rethink how evidence is assessed, combined, communicated, and used in decision-making; how to use effective methods for asking experts to make judgements; and how to use a structured process for making decisions that incorporate the evidence and having effective processes for learning from actions.

STRATEGIC OBJECTIVE 3.2

Current energy needs are met through balanced resource use

Related Studies and Research

Federal Lands Snapshot: Hardrock Mining Systems (GAO, 2021).²⁸ This study described the systems used to manage mining on federal lands. It also provided examples of the challenges and opportunities for improvement related to managing such mining, particularly in the areas of environmental stewardship, governance and transparency, and administrative resources.

Recommendations to Improve Mining on Public Lands (Interagency Working Group on Mining Laws, Regulations, and Permitting, 2023).²⁹ This report addresses the requirement in the Bipartisan Infrastructure Law (Public Law 117-58) for the Department of the Interior and the U.S. Department of Agriculture to submit a report to Congress identifying legislative and regulatory recommendations to increase the timeliness of permitting activities for exploration and responsible development of domestic critical minerals.

Oil and Gas: Interior Should Strengthen Management of Key Data Systems Used to Oversee Development on Federal Lands (GAO, 2021).³⁰ This study reviewed the data systems Interior uses to oversee oil and gas development on federal lands and waters. GAO recommended that Interior develop a plan to improve data sharing among its key data systems and that Interior update its guidance for developing new data systems to address how program offices are to implement agile development.

2020 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends (DOI BLM, 2020).³¹ This report estimated greenhouse gas emissions from coal, oil, and gas development that is occurring, and is projected to occur, on the federal onshore mineral estate. This information supports evaluation of the cumulative impacts of GHG emissions from fossil fuel energy leasing and development authorizations.

2021 Assessment of Undiscovered Oil and Gas Resources of the Nation's Outer Continental Shelf (BOEM, 2021).³² This report assessed undiscovered oil and gas resources for the U.S. Outer Continental Shelf (OCS). The 2021 assessment considered relevant data and information available as of January 1, 2019, and builds upon previous OCS resource assessments. This assessment provided an estimate of undiscovered, technically, and economically recoverable oil and natural gas resources outside of known oil and gas fields on the OCS considering recent geophysical, geological, technological, and economic information.

26 <https://conbio.onlinelibrary.wiley.com/doi/epdf/10.1111/cobi.13991>

27 <https://www.openbookpublishers.com/books/10.11647/obp.0321>

28 <https://www.gao.gov/products/gao-22-105438>

29 <https://www.doi.gov/media/document/mriwg-report-final-508-pdf>

30 <https://www.gao.gov/products/gao-21-209>

31 <https://www.blm.gov/content/ghg/>

32 <https://www.boem.gov/2021-assessment-undiscovered-oil-and-gas-resources-nations-outer>

Report on the Federal Oil and Gas Leasing Program (DOI, 2021).³³ Prepared in response to Executive Order 14008, this Interior report identified significant reforms that should be made to ensure onshore and offshore oil and gas programs provide a fair return to taxpayers, discourage speculation, hold operators responsible for remediation, and more fully include communities and Tribal, state, and local governments in decision-making.

Attributes of a First-in-Class Environmental Program: A Letter Report Prepared for the Bureau of Ocean Energy Management (National Academies of Sciences, Engineering, and Medicine, 2022).³⁴ This report provides a framework that BOEM will use to evaluate its Environmental Program, which is focused on developing quality science and whose priorities, outcomes, and impacts are driven by the larger needs of BOEM's comprehensive environmental program, particularly its environmental assessments.

Federal Lands Greenhouse Emissions and Sequestration in the United States—Estimates for 2005–14 (USGS, 2018).³⁵ Prepared at the request of the Secretary of the Interior, this report provided a publicly available database of estimated greenhouse gas emissions associated with the extraction and use of fossil fuels from Federal lands, and ecosystem carbon emissions and sequestration on those lands. An updated inventory will be published late in 2024 and will incorporate additional data and source types such as the ongoing orphaned oil and wells inventory supported by Bipartisan Infrastructure Law funds.

STRATEGIC OBJECTIVE 4.1

People, communities and organizations benefit from Interior data, science, and information

Related Studies and Research

Tapwater Exposures, Effects Potential, and Residential Risk Management in Northern Plains Nations (ACS EST Water 2022).³⁶ This study assessed point-of-use tap water in three northern plains Tribal Nations. The results indicated that simultaneous exposures to co-occurring tap water contaminants are common.

STRATEGIC OBJECTIVE 4.3

The Interior workforce is diverse, safe, engaged, and committed to the mission

Related Studies and Research

Tapwater Exposures, Effects Potential, and Residential Risk Management in Northern Plains Nations (ACS EST Water 2022).³⁷ This study assessed point-of-use tap water in three northern plains Tribal Nations. The results indicated that simultaneous exposures to co-occurring tap water contaminants are common.

33 <https://www.doi.gov/sites/doi.gov/files/report-on-the-federal-oil-and-gas-leasing-program-doi-eo-14008.pdf>

34 <https://doi.org/10.17226/26368>

35 <https://pubs.usgs.gov/publication/sir20185131>

36 <https://pubs.acs.org/doi/full/10.1021/acsestwater.2c00293>

37 <https://www.doi.gov/ppa/equity>

STRATEGIC OBJECTIVE 4.4

There is confidence and satisfaction in the U.S. Department of the Interior

Related Studies and Research

OMB Memorandum 22-09 Moving the U.S. Government Toward Zero Trust Cybersecurity Principles (OMB, 2022).³⁸ This OMB memo discusses and sets forth a Federal zero trust architecture strategy, requiring agencies to meet specific cybersecurity standards and objectives by the end of Fiscal Year 2024 in order to reinforce the Government's defenses against increasingly sophisticated and persistent threat campaigns.

Natural Hazard Mitigation Saves: 2019 Report (National Institute of Building Sciences, 2019).³⁹ This report provided a benefit-cost analysis of natural hazard mitigation, from adopting up-to-date building codes and exceeding codes to addressing the retrofit of existing buildings and utility and transportation infrastructure.

38 <https://www.whitehouse.gov/wp-content/uploads/2022/01/M-22-09.pdf>

39 <https://www.nibs.org/reports/natural-hazard-mitigation-saves-2019-report>

Office of Planning and Performance Management
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

