

Invasive Species Strategic Plan

The Department of the Interior’s (Interior) Invasive Species Strategic Plan (Plan), developed pursuant to the John D. Dingell, Jr. Conservation, Management, and Recreation Act (Public Law 116-9), provides an overarching framework for the broad spectrum of activities that are performed by ten of Interior’s Bureaus and multiple offices. The Plan includes goals, objectives, strategies, and performance measures, as well as crosscutting principles that guide its implementation. The strategies reflect both work that is ongoing and opportunities to focus on emerging priorities. While Bureaus often have their own invasive species management plans, this Plan, for the first time, outlines a comprehensive approach across Interior that both builds upon existing plans and serves as an overarching strategy. This Plan provides higher level direction than Interior’s more tactically oriented Departmental Manual chapter on invasive species policy. It is narrower in scope than the Department of the Interior Strategic Plan for Fiscal Years 2018-2022, developed pursuant to the Government Performance and Results Modernization Act of 2010, which does touch on invasive species in the broader context of Interior’s multi-faceted mission.

Interior identified the following five goals to advance invasive species management: 1. Collaborate across Interior and with others to optimize operations through leveraging partnerships, joint educational efforts, and shared funding. 2. Cost-effectively prevent the introduction and spread of invasive species into and within the United States. 3. Implement early detection and rapid response efforts in coordination with other Federal agencies, States, Tribes, Territories, and other partners to reduce potential damage and costs from new infestations becoming established. 4. Cost-effectively control or eradicate established invasive species populations to reduce impacts and help restore ecosystems. 5. Improve invasive species data management for decision-making at all levels of government.

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DEMONSTRATION ONLY

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U.S. Department of the Interior (DOI)

Description:

As the largest land and water manager in the United States, Interior has a vital role in the management of invasive species. The coordinated approach outlined in the Plan will leverage resources more effectively and bolster programs, practices, and services necessary to reduce the negative impacts of invasive species. Interior is committed to working across the Federal family and with States, Tribes, Territories, local governments, and other partners to collectively manage invasive species to conserve the Nation's resources for the benefit of current and future generations... The Department of the Interior strives to fulfill a vision to: • prevent invasive species from entering and spreading within the United States; • collaborate with partners in establishing early detection and rapid response capabilities to eradicate newly detected species or small populations to prevent them from spreading; • manage established invasive species to limit their spread and reduce negative impacts; • support and use scientific and technological innovation that make the management of invasive species more feasible; • avoid having Interior-managed lands and waters become a source of invasive species that damage the lands, waters, and resources of our neighbors; • share information and raise awareness to mobilize action to address invasive species; • manage Interior lands and waters so they are resistant to invasive species infestations and are resilient to disturbance; • integrate invasive species work into other Interior activities on regional and national levels to promote effectiveness and efficiency; • engage with partners to address mutual invasive species priorities, including those identified by State, Tribal, Territorial, and local governments and other Federal agencies; and • incorporate cost-effectiveness in all actions we undertake to achieve Interior's invasive species management mission.

Stakeholder(s):

Invasive Species Collaboration Partners :

When the Plan refers to collaborating "with others," or "partners," this includes working with State, Tribal, Territorial, and local governments, other Federal agencies, academia, industry, non-profit organizations, land managers, landowners, and the public. Due to the evolving nature of partnerships and the extensive and varying collaborations in which Interior is engaged across the Nation, specific groups are rarely specified in this Plan; however, the importance of partnerships in invasive species management, and the need for Interior's active involvement in those partnerships, cannot be overstated.

State Governors :

Interior's invasive species priorities will vary regionally based on the priorities of its 12 standard regions and State Governors, Tribal leaders, local governments, and other partners, so that Interior remains as adaptable as possible to address current and emerging needs. The Plan underscores the importance of integrating efforts across a diverse array of stakeholders at multiple scales. It emphasizes coordination, communication, partnering, science-based decision-making, planning, and strategic on-the-ground action to reduce the threat of invasive species. Implementation of the Plan will require effective and cost-efficient strategies to prevent the introduction and inhibit the spread of invasive species and help protect the Nation's lands and waters, as well as the livelihoods that rely upon them.

Tribal Leaders

National Invasive Species Council

Aquatic Nuisance Species Task Force

Interagency Bodies

Tribal Governments

State Governments

Local Governments

Territorial Governments

Alaska Native Corporations

Native Hawaiian Community

Academic Institutions

Private Sector

Landowners

Hunters

Anglers

Ranchers

Farmers

Invasive Species Cooperatives

Nongovernmental Organizations

Bureau of Indian Affairs (BIA) :

Mission: To enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of American Indians, Indian Tribes, and Alaska Natives. Responsibilities for Invasive Species: • Oversees monitoring, compliance, and enforcement of grazing permits and agricultural leases with respect to invasive species on Tribal range and agricultural lands held in trust for Indian Tribes. • Receives Federal allocation funds for invasive species (vegetative treatment of noxious weeds) on federally-recognized Tribal lands under the trust responsibility of the

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Stakeholders (continued)

Secretary of the Interior, which are disbursed through a competitive project process. • Supports Tribal participation in Interior's 12 standard regions for early detection and rapid response; local, State, and regional Cooperative Weed Management Areas; and collaborative restoration projects, including the Great Lakes Restoration Initiative, Missouri River Water Coalition, San Juan Woody Watershed Initiative, and the Southwest Tamarisk Coalition.

Bureau of Land Management (BLM) :

Mission: To sustain the health, diversity, and productivity of America's public lands for the multiple use and enjoyment of present and future generations. *Responsibilities for Invasive Species:* • Controls the introduction and spread of invasive plants and other taxa across public lands. • Works cooperatively to manage invasive species across landscapes. • Manages for preservation and restoration of native ecosystems. • Manages public lands to provide for multiple uses, such as livestock grazing, energy and mineral development, recreation, and forestry and cultural activities, while minimizing the introduction and spread of invasive species.

Bureau of Ocean Energy Management (BOEM) :

Mission: BOEM manages development of renewable and conventional energy and mineral resources of the Outer Continental Shelf in an environmentally and economically responsible way. *Responsibilities for Invasive Species:* • Develops, funds, and manages rigorous scientific research through its Environmental Studies Program, specifically to inform policy decisions on the development of energy and mineral resources on the Outer Continental Shelf. • Considers invasive species through its environmental program to ensure that environmental protection informed by science and law is an indispensable consideration in BOEM's decision-making.

Bureau of Reclamation (Reclamation) :

Mission: To manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public. *Responsibilities for Invasive Species:* • Conducts invasive zebra and quagga mussel monitoring at nearly 400 water bodies. • Supports partners' watercraft inspection and decontamination efforts. • Conducts research and develops methods and technologies to prevent, detect, and control invasive species, with a strong focus on zebra and quagga mussel impacts on Reclamation facilities. • Utilizes site-specific Integrated Pest Management Plans for terrestrial and aquatic invasive species management. • Creates tools to guide management of invasive species on Reclamation land and facilities, such as Reclamation's Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species, the Integrated Pest Management Manual, and Facility Vulnerability Assessments.

Bureau of Safety and Environmental Enforcement (BSEE) :

Mission: To promote safety, protect the environment, and conserve resources offshore through vigorous regulatory oversight and enforcement. *Responsibilities for Invasive Species:* • Performs compliance and monitoring with environmental standards as assessed through environmental analysis.

National Park Service (NPS) :

Mission: To preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations. *Responsibilities for Invasive Species:* • Conserves the scenery and the natural and historic objects and the wildlife therein and provides for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations, including the prevention and management of invasive species (NPS Organic Act of 1916, as amended, and Management Policies 2006). • Cooperates with stakeholders and partners to control and manage invasive species in and around NPS units. • Provides technical support and training in invasive species management methods to NPS staff, volunteers, and partners. • Inventories and monitors the introduction, spread, management, and impact of invasive species in parks. • Supports 17 Invasive Plant Management Teams that work to prevent, monitor, and control invasive plants and restore native plant communities in the National Park System. • Provides relevant information to diverse public audiences about invasive species to enhance public knowledge, awareness, and stewardship. • Serves on numerous invasive species task forces and working groups to increase coordination and information sharing.

Office of Insular Affairs (OIA) :

Mission: To carry out the administrative responsibilities of the Secretary of the Interior and the Assistant Secretary for Insular and International Affairs in coordinating Federal policy for the territories of American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands. The Office is also responsible for administering and overseeing U.S. Compact assistance to the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. The office of the Assistant Secretary also manages Interior's Oceans, Great Lakes, and Coastal Program, which co-chairs the U.S. Coral Reef Task Force (USCRTF) with the National Oceanic and Atmospheric Administration. The USCRTF monitors and promotes eradication of invasive species that attack coral reefs. *Responsibilities for Invasive Species:* • Provides financial assistance and award management for brown tree-snake (BTS) research and eradication. The primary goals of OIA's BTS efforts are to: 1) prevent the establishment of BTS in other U.S.-affiliated insular areas and 2) support the development and implementation of techniques to control BTS populations on Guam. OIA also provides financial support to combat other invasive species, such as the coconut rhinoceros beetle, little fire ant, crown of thorns starfish, red tiled boa constrictors, and African tulip and rubber trees.

Office of Surface Mining Reclamation and Enforcement (OSMRE) :

Mission: To carry out the requirements of the Surface Mining Control and Reclamation Act (SMCRA) in cooperation with States and Tribes. *Responsibilities for Invasive Species:* • Works in cooperation with partner States, industry, environmental groups, academia, and others to replant legacy or abandoned mine lands with native species and control or eradicate invasive plants as required by the site. • Promotes and recommends the use of native hardwoods and succession species through the Appalachian Regional Reforestation Initiative Forestry Advisories.

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Stakeholders (continued)

U.S. Fish and Wildlife Service (USFWS) :

Mission: To work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. Responsibilities for Invasive Species:

- Co-chairs and provides administrative support to the Aquatic Nuisance Species Task Force composed of 13 Federal and 13 non-Federal members, six regional panels, and issue specific committees.
- Oversees the national aquatic invasive species program.
- Enforces the Injurious provisions of 18 U.S.C. § 42 and the wildlife trafficking provision of 16 U.S.C. § 3372.
- Directs the inspection of wildlife shipments at staffed wildlife ports and enforces wildlife laws against trafficking in interstate and foreign commerce of injurious and invasive species.
- Addresses invasive species threats to the persistence of Trust resources.
- Incorporates invasive species management actions into section 7 Endangered Species Act consultations as well as conservation and species recovery plans.
- Supports Invasive Species Strike Teams that work across the National Wildlife Refuge System to carry out prevention and early detection and rapid response activities on and within the vicinity of refuge lands and waters; and individual refuges implement a variety of practices at the local level to manage invasive species.
- Implements an annual competitive \$1 million "Large Invasive Species Allocation" awarded to one refuge to eradicate one or more invasive species.
- Provides relevant information to diverse public audiences about invasive species to enhance public knowledge, awareness, and stewardship.
- Coordinates the Island Restoration and National Invasive Species Memorandum of Understanding Partner Groups.

U.S. Geological Survey (USGS) :

Mission: To serve the Nation by providing reliable scientific information to describe and understand the Earth; minimize loss of life and property from natural disasters; manage water, biological, energy, and mineral resources; and enhance and protect our quality of life. Responsibilities for Invasive Species:

- Conducts research and develops methods and technologies to prevent the introduction of invasive species.
- Identifies, reports, and develops new technologies to detect invasions and assess risk to natural areas and waters.
- Assesses change in populations and distribution of established invaders.
- Determines effects of invasive species and susceptibility of habitats to invasion.
- Provides approaches and control technologies to contain, reduce, and eliminate populations of invasive species and restore habitats and native species.
- Provides and coordinates collection, synthesis, and accessibility of invasive species information.

National Invasive Species Council :

- Provides the vision and national leadership to coordinate, sustain, and expand efforts to safeguard the United States against invasive species through the prevention, eradication, and control of invasive species, and through the restoration of ecosystems and other assets impacted by invasive species.
- Established under Executive Orders 13112 and 13751.
- Composed of 12 Departments and four White House offices.
- Co-chaired by the Secretaries of the Interior, Agriculture, and Commerce.
- Implements priority activities in line with Annual Work Plans.
- Facilitates the institutional leadership and priority setting by Council members.
- Achieves effective inter-agency coordination and cost efficiency.
- Raises awareness and motivates action.
- Removes institutional and policy bar-

- riers.
- Assesses and strengthens capacities.
- Fosters scientific, technical, and programmatic innovation.

Office of Wildland Fire :

- Oversees Interior's Wildland Fire Management Program.
- Develops and executes budgets.
- Coordinates workloads across Interior.
- Establishes wildland fire management policy.
- Manages program oversight.
- Pursues technological innovation.
- Management of invasive species intersects with the wildland fire program through fuels management, wildlife response, and post-fire activities.

Office of the Secretary :

Office of Policy Analysis

- Provides crosscutting analysis and coordination to support decision-making and policies across Interior.
- Provides expertise and leadership to evaluate Interior programs, develop and coordinate new programs, conduct studies of policies and programs, and conduct relevant economic analyses.
- Coordinates and guides interagency and multi-Bureau program development and policy analysis tasks and undertakes issue analysis and decision documents on behalf of the Secretary, Deputy Secretary, and Assistant Secretary for Policy, Management and Budget.
- Serves as Interior's point of contact on invasive species issues for Bureaus and other Federal and non-Federal entities.
- Coordinates Interior's crosscutting plans and activities related to invasive species.

Office of Policy Analysis :

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Whitney Boone :

Office of the Secretary

Ryan Nichols :

Office of the Secretary

Hilary Smith :

Office of the Secretary

Earl Campbell :

U.S. Geological Survey

Wesley Daniel :

U.S. Geological Survey

Cindy Kolar Tam :

U.S. Geological Survey

Lori Makarick :

National Park Service

Mike Chouinard :

U.S. Fish and Wildlife Service

John Klavitter :

U.S. Fish and Wildlife Service

Craig Martin :

U.S. Fish and Wildlife Service

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Stakeholders (continued)

Susan Pasko :
U.S. Fish and Wildlife Service

Hailey McCoy :
Office of Insular Affairs

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Vision

The nation is protected from the harmful impacts of invasive species

Mission

To manage resources and partner with others to cost-effectively protect the Nation's economy, environment, public health, infrastructure, natural resources, and cultural heritage from the harmful impacts of invasive species for the benefit of current and future generations.

Values

Partnership: Partnering is critical to success in managing invasive species; thus, collaborative conservation is central to the Plan and included as a crosscutting principle that applies to implementation of each of the Plan's goals.

Principles: The following crosscutting principles are fundamental to successful invasive species management and are to be applied in the implementation of the Plan's activities where applicable.

Collaboration: Promote and engage in collaborative conservation: Coordinate and cooperate across Interior and with other Federal agencies; the National Invasive Species Council, Aquatic Nuisance Species Task Force, and other interagency bodies; Tribal, State, local, and Territorial governments, Alaska Native Corporations, and the Native Hawaiian Community; and other entities such as academic institutions, the private sector, landowners, hunters and anglers, ranchers and farmers, local invasive species cooperatives, nongovernmental organizations, and others. Leverage staff and funding across these groups to manage invasive species effectively and efficiently.

Conservation

Science: Leverage science: Use relevant and reliable science, including peer-reviewed and traditional knowledge, without bias, to inform and influence understanding of invasive species, their impacts, and how to manage them.

Adaptivity: Adaptively manage: Use adaptive management, as appropriate, to improve invasive species management and policies. Use management outcomes, monitoring, evaluation, risk assessment, research, and innovation to inform adjustments to the strategies implemented in this Plan.

Systems: Manage on a watershed or ecosystem scale, including islands and other isolated or contained geographies: Use a systems approach that emphasizes the importance of maintaining ecological processes to restore or recover ecological communities previously invaded or to maintain the resistance and resilience of relatively intact ecological communities, while balancing economic, cultural, and environmental priorities.

Innovation: Promote innovative solutions: Encourage innovative science and technologies to create new options to address difficult challenges where few or no viable or effective options currently exist.

Integration: Apply integrated pest management: Apply integrated pest management principles in a manner that balances risks to human health and the environment from invasive species management activities with the risks of failure to act expeditiously to control invasive species.

Cost-Effectiveness: Prioritize cost-effectiveness: Apply a deliberate decision-making process to evaluate the full range of methods and tools available to achieve resource management objectives in a particular geography and select the one that achieves those objectives with the least expenditure of Interior funds.

Streamlining: Streamline regulatory and decision-making processes: Ensure appropriate management actions are taken that are commensurate with the potential to avoid harm, while maintaining appropriate and necessary consultations with State, Tribal, and local governments, and the public.

Accountability: Demonstrate accountability: Develop and use specific, measurable, achievable, results-oriented, and timefixed (SMART) performance metrics to evaluate invasive species management activities. Aim for substantive annual net reduction of invasive species populations or infested acreage on Interior-managed lands and waters. Report annually on performance results and share with Federal and non-Federal partners, other interested parties, and the public.

DEMONSTRATION ONLY

1. Operations

Collaborate across Interior and with others to optimize operations through leveraging partnerships, joint educational efforts, and shared funding.

Invasive species are not constrained by jurisdictional boundaries. The most successful efforts to combat invasive species are those that enlist a broad coalition of partners working across jurisdictions toward mutual goals. Numerous interagency coordinating bodies and partnerships are operating at all levels— international to local—across the Nation to advance appropriately scaled strategies. Collectively, these interagency bodies and partnerships create a network of concerted action, information sharing, and planning that strengthens society’s ability to manage invasive species (Appendix C). It is through these and other networks that the identification of mutual priorities take place. This goal emphasizes having effective coordination and communication mechanisms for identifying mutual priorities, sharing information across Interior and with others, promoting invasive species education campaigns, and working closely across Interior Bureaus and with our partners to leverage resources... Goal Outcome: Effective partnerships use the best available information and leverage resources to address national and regional invasive species priorities efficiently and effectively.

1.1. Engagement

Increase engagement in partnerships at multiple scales and “do our share” to advance mutual priorities and promote efficiency and cost-savings.

Performance Indicators

1.1.1 Satisfaction

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percentage of partners that are satisfied with the outcomes being leveraged through partnerships with Interior (Reporting Bureaus: BLM, NPS, Reclamation, USFWS, USGS)

1.1a. Interagency Bodies, Partnerships & Networks

Leverage existing interagency bodies, partnerships, and networks and establish new collaborative efforts, as needed, to better manage invasive species (e.g., feral swine).

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.1b. Interjurisdictional Plans

Develop and implement interjurisdictional management plans, in collaboration with others, that advance mutual priorities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.1c. MOUs & Agreements

Use Memoranda of Understanding, cooperative agreements, and other instruments, to strengthen collaboration to advance efficient management activities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.1d. Priorities & Incentives

Incentivize partnerships among Interior Bureaus and with others that work across jurisdictions to address mutual priorities.

Stakeholder(s):
Interior Bureaus

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.2. Expertise & Information

Increase information exchange across Interior and with others to share expertise on invasive species science and management and promote efficiency and cost-savings.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.2a. Coordination, Communication & Reporting

Use and enhance current mechanisms for coordination, communication, and reporting, including leveraging information technology for elements such as geospatial mapping and authoritative databases to expedite information-sharing.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.2b. Training

Enhance invasive species training opportunities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.2c. SME Network

Share a nationwide network of Interior subject matter experts to provide training or technical assistance internally and to partners on invasive species management activities.

Stakeholder(s):

Interior Subject Matter Experts

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.2d. Tribes & Indigenous Communities

Increase engagement with Tribes and indigenous communities to understand how culture, subsistence, and traditional ecological knowledge can be incorporated into management goals and activities.

Stakeholder(s):

Tribes

Indigenous Communities

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.3. Understanding & Motivation

Increase understanding about invasive species and motivate actions to address them.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.3a. Education, Outreach & Websites

Leverage and enhance national invasive species education and outreach campaigns and websites to educate the public and provide informational resources for managers.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.3b. Target Audiences

Leverage Interior capabilities to inform target audiences about invasive species, including information on distribution, impacts, and management solutions.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.3c. Coordination

Promote coordination among State, Tribal, Territorial, Federal, non-governmental organizations, and other invasive species and communication experts to ensure the public receives accurate, actionable, and consistent messaging about invasive species.

Stakeholder(s):

State Agencies

Tribal Agencies

Territorial Agencies

Federal Agencies

Non-Governmental Organizations

Invasive Species Experts

Communication Experts

The Public

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.3d. Studies

Undertake studies to assess the ecological, economic, or human health impacts of invasive species and their management to inform decision-making.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.4. Funding

Increase partner and internal awareness of Interior funding opportunities.

Performance Indicators

1.4.1 Projects

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percent of invasive species projects that involve cost-sharing from at least one other organization (Reporting Bureaus: BLM, NPS, Reclamation, USFWS, USGS)

1.4a. Awareness

Ensure that Interior staff, partners, and stakeholders are aware of Interior financial assistance programs (e.g., grants) that may be available to fund invasive species management activities.

Stakeholder(s):

Interior Staff

Interior Stakeholders

Interior Partners

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.4b. Efficiency & Effectiveness

Optimize financial assistance programs for invasive species management activities so that they are efficient, effective, and meet programmatic objectives.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5. Resources & Investments

Increase coordination of resources and investments across Interior and with others to support mutual priorities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5a. Reporting & Analysis

Improve reporting and analysis of Interior’s invasive species investments and other, related investments, particularly those allocated to high-impact species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5b. Priorities, Investments & Resources

Identify mutual priorities across Interior and with others and leverage investments and resources to address those priorities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5c. Synergies

Pursue possible synergies with programs with similar goals or activities, such as the wildland fire community, that are nontraditional partners in invasive species management.

Stakeholder(s):

Wildland Fire Community

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5d. Interagency Priorities & Budgets

At the regional level, coordinate through Secretarial Field Special Assistants and their respective regional executive leadership teams in interagency priority-setting and budget execution on invasive species management activities of programmatic interest to more than one Bureau.

Stakeholder(s):

Secretarial Field Special Assistants

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

1.5e. National Priorities

At the national level, coordinate through Interior’s Office of Policy Analysis to work with Bureaus to establish a select set of national invasive species program priorities, and advise the Assistant Secretary for Policy, Management and Budget on those issues.

Stakeholder(s):

Office of Policy Analysis

Assistant Secretary for Policy, Management and Budget

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2. Introduction & Spread

Cost-effectively prevent the introduction and spread of invasive species into and within the United States.

Preventing the introduction of invasive species is the first line of defense against biological invasion and is the most cost-effective approach. Prevention includes efforts to stop the introduction of invasive species into the United States and efforts to stop the secondary spread within the United States from an infested area to areas free of that invasive species. Science-based decision-support tools are essential to identify invasive species and their pathways of introduction, so that resources can be focused accordingly. Outcomes of these assessments inform both regulatory and nonregulatory approaches. This goal emphasizes working with partners to identify mutual priorities for prevention, particularly at the regional level, and promotes the use of Interior’s authorities for prevention, the implementation of best prevention practices, and the pursuit of research and innovation to develop new prevention measures... Goal Outcome: Effective biosecurity measures reduce the number of invasive species that arrive, establish, and spread within the United States.

2.1. Approaches & Impacts

Increase the use of cost-effective approaches to prevent the introduction of invasive species into the United States and reduce long-term economic impacts.

Performance Indicators

2.1.1 Species

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percent of species listed as injurious under the Injurious provisions of 18 U.S.C. § 42 not established in the United States at time of listing that remain not established (Reporting Bureau: USFWS)

2.1a. Scanning & Modelling

Use horizon-scanning, predictive modelling, and other tools to identify high-risk species and pathways of introduction into the United States.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.1b. Interior Authorities

Leverage Interior’s existing statutory authorities, such as the injurious provisions of the Lacey Act, 18 U.S.C § 42 and the wildlife trafficking provision of Lacey Act Amendments of 1981, 16 U.S.C § 3372, to manage pathways of invasive species introductions and prevent new invasive species from becoming established.

Performance Indicators

2.1b.1 Animals

Description	Type	Start Date	End Date	Number
[Unspecified]	Target			
	Actual			

Number of injurious animals under 18 U.S.C. § 42 (Wildlife Ports of Entry) or injurious animals and invasive wildlife and plants under 16 U.S.C. § 3371-3378 (interstate and Wildlife Ports of Entry) interdicted by the USFWS (Reporting Bureau: USFWS)

2.1c. Importation Data

Enhance the collection of trade importation data as it relates to invasive species so that it is electronically available and searchable for organisms (wildlife and plants) imported into the United States; ensure this data is correctly identified to species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.1d. Awareness

Ensure Interior staff are aware of relevant authorities (e.g., consultation under Endangered Species Act 7(a)(2)) that can be used for prevention and encourage their implementation at all organizational levels.

Stakeholder(s):

Interior Staff

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.1e. Other Federal Agencies

Support and work with other Federal agencies in their efforts to implement their own statutory authorities to reduce the risk of invasive species introductions through pathways not regulated by Interior.

Stakeholder(s):

Federal Agencies

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.1f. Gaps & Opportunities

Work through the appropriate Executive Branch processes to identify gaps and opportunities within Interior authorities to enhance protection of the United States from invasive species threats.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.2. Prevention

Prioritize prevention practices to inhibit the secondary spread of invasive species within the United States and reduce long-term economic impacts.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.2a. Interior-Managed Lands

Develop and implement site-specific prevention and containment practices for pathways that are likely to introduce or spread invasive species onto and from Interior-managed lands.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.2b. Education & Compliance

Educate visitors to Interior-managed lands and waters of pertinent invasive species laws and regulations and cooperate closely with appropriate Federal and non-Federal law enforcement personnel to ensure compliance.

Stakeholder(s):

Visitors :
to Interior-managed lands and waters

Law Enforcement Personnel

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.2c. Interstate Movement

Collaborate with partners to identify mechanisms to reduce interstate movement of invasive species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.2d. Coordination

Leverage Interior’s 12 standard regions to bolster coordination across Interior and with partners to address regional prevention priorities.

Stakeholder(s):

Interior Regions

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.3. Tools, Technologies & Methods

Leverage research and innovation to develop cost-effective tools, technologies, and methods to prevent invasive species introductions and secondary spread.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.3a. Risk Analyses

Enhance decision-support tools to conduct risk analyses that identify high-risk species and high-risk pathways that are likely to negatively impact Interior-managed resources.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

2.3b. Tools, Designs & Practices

Leverage Interior expertise and that of external partners to increase efficacy of tools, designs, or practices to prevent the introduction and spread of invasive species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

DEMONSTRATION ONLY

3. Detection & Response

Implement early detection and rapid response efforts in coordination with other Federal agencies, States, Tribes, Territories, and other partners to reduce potential damage and costs from new infestations becoming established.

For invasive species that fail to be excluded through prevention efforts, early detection and rapid response (EDRR)—a coordinated set of actions to find and eradicate initial invasive species infestations before they spread and cause harm—can avoid the long-term costs and economic burden that invasive species might otherwise cause. This goal emphasizes the importance of coordinating EDRR activities, including the identification of priority EDRR species, across Interior and with State, Tribal, and Territorial governments, which are often the lead agencies for response. It also promotes capabilities for early detection biosurveillance and rapid response. Early detection biosurveillance is the capability necessary to predict, prioritize, and detect new invasive species occurrences so they can be eradicated, ideally before they become successfully established. This goal also strives to streamline regulatory processes so responses occur in a timely manner, while maintaining appropriate and necessary consultations with State, Tribal, and local governments and satisfying applicable environmental compliance and other statutory obligations... Goal Outcome: Invasive species are detected and eradicated early in the invasion process.

3.1. Biosurveillance

Engage in coordinated, early detection biosurveillance efforts that inform decision-making for rapid responses and promote efficiency and cost-savings.

Performance Indicators

3.1.1 Plant Species

Description	Type	Start Date	End Date	Number
[Unspecified]	Target			
	Actual			

Number of new invasive plant species on Interior-managed lands and waters (Reporting Bureaus: BLM, NPS, USFWS)

3.1.2 Animal Species

Description	Type	Start Date	End Date	Number
	Target			
	Actual			

Number of new invasive animal species on Interior-managed lands and waters (Reporting Bureaus: NPS, USFWS)

3.1a. Roles, Responsibilities & Contributions

Delineate Interior’s roles, responsibilities, and contributions within the broader intergovernmental community in implementing coordinated early detection biosurveillance efforts.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.1b. Capacity, Expertise, Tools, Techniques & Technologies

Develop and enhance early detection biosurveillance capacity, field expertise, tools, techniques, and technologies, including molecular methods.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.1c. Prioritization

Prioritize early detection biosurveillance on Interior-managed lands and off Interior-managed lands where Interior has statutory authority, and where there is the greatest risk of introduction of high-impact invasive species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.1d. Taxonomic Expertise

Selectively strengthen Interior taxonomic expertise and ability to verify species identification for programs where Interior has a statutory mandate (e.g., fish and wildlife health and wildlife inspection at designated wildlife ports of entry).

Stakeholder(s):

Wildlife Ports of Entry

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.1e. Inventory, Monitoring & Citizen Science

Use existing inventory, monitoring, and citizen science programs, where appropriate, to assist with early detection biosurveillance.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.1f. Rapid Response

Inform rapid response actions to recent introductions by rapidly assessing risks, including using streamlined geospatial mapping and data from authoritative databases.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.2. Response

Engage in coordinated, rapid response efforts based on the outcome of early detection biosurveillance to promote efficiency and cost-savings.

Performance Indicators

3.2.1 Exercises

Description	Type	Start Date	End Date	Number
[Unspecified]	Target			
	Actual			

Number of Early Detection and Rapid Response preparedness exercises in which Interior engaged with partners (Reporting Bureaus: BLM, NPS, Reclamation, USFWS, USGS)

3.2a. Roles, Responsibilities & Contributions

Delineate Interior’s roles, responsibilities, and contributions within the broader intergovernmental community in implementing coordinated rapid response efforts.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.2b. Frameworks

Use or develop response frameworks to facilitate response actions, including coordination, information flow, analysis, decision-making, goal setting, resource-sharing, and implementation.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.2c. Regulatory Processes

Streamline regulatory processes (e.g., where appropriate under the National Environmental Policy Act, Endangered Species Act, National Historic Preservation Act, and injurious listing under 18 U.S.C § 42) so that rapid response actions occur in a timely manner.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.2d. Interjurisdictional Teams

Promote and enhance the use and capacity of interjurisdictional teams to implement coordinated rapid response actions.

Stakeholder(s):

Interjurisdictional Teams

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

3.2e. Effectiveness

Evaluate the effectiveness of rapid response actions and share results to improve subsequent actions.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4. Control, Eradication & Restoration

Cost-effectively control or eradicate established invasive species populations to reduce impacts and help restore ecosystems.

Once invasive species are established, managers must determine which invasive species to control or eradicate, and where geographically to focus those efforts. Priorities can be set based on evaluating which species pose the greatest threat to human health, Interior’s resource management objectives, the economy, and ecosystem services and functions. Feasibility of control considers criteria such as available control techniques, cost-effectiveness, likelihood of successful control or eradication, likelihood of reinvasion, public support, complexity of environmental compliance, and availability of resources. Interior promotes the use of integrated pest management, an approach that uses biological, cultural, physical, and chemical tools in a way that reduces risks to human health, the environment, and the economy. It is a science-based decision-making process that incorporates management goals, consensus building, biology, monitoring, environmental factors, and selection of the best available technology to achieve desired outcomes while managing effects on non-target species and the environment and preventing unacceptable levels of damage. Because invasive species are not constrained by jurisdictional boundaries, working across those boundaries to control invasive species in collaboration with State, Tribal, and local governments, other Federal agencies, landowners, and other partners often is paramount for success. This goal emphasizes the importance of identifying mutual priorities for a coordinated approach to control invasive species in a given geographic area and increase effectiveness. It also stresses opportunities to focus on those areas where eradication—the complete removal of the invasive species—is most likely and sustainable in the long-term (e.g., on islands) or where suppression (e.g., biological control) can be achieved to sustain management objectives. In addition, this goal leverages science and innovation to develop tools and methods to control or eradicate invasive species and help restore ecosystem form, function, and structure to enhance resilience to future disturbance and meet land management multi-use objectives. Similar to Goal 3, this goal also emphasizes the importance of streamlining regulatory processes, while maintaining appropriate and necessary consultations with State, Tribal, and local governments and meeting environmental compliance and other statutory obligations... Goal Outcome: Control and eradication projects are implemented using management tools that substantively reduce the impact of priority invasive species on Interior resources and those of its neighbors and partners.

4.1. Interior-Managed Lands & Waters

Control or eradicate established invasive species on Interior-managed lands and waters and across jurisdictions, where practicable.

Performance Indicators

4.1.1 Acres

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percent of baseline acres infested with target invasive plant species that are under control on Interior-managed lands and waters (current Governmental Performance and Results Act strategic plan measure) (Reporting Bureaus: BLM, NPS, Reclamation, USFWS)

4.1.2 Populations

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percent of invasive animal species populations that are under control on Interior-managed lands and waters (current Governmental Performance and Results Act strategic plan measure) (Reporting Bureaus: NPS, USFWS)

4.1a. Decision Support

Develop and use decision-support tools in setting priorities for control or eradication, including prioritizing geographic areas (e.g., areas of high conservation value or that are culturally significant) and prioritizing particular invasive species, establishing goals for population suppression or eradication, and determining where success can be maintained long-term and when control or eradication is no longer practicable.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.1b. Integrated Pest Management

Control or eradicate priority invasive species using integrated pest management approaches, particularly in those areas where eradication is feasible (e.g., on an island or specific geographic region where success can be maintained long-term).

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.1c. Practices & Programs

Promote practices (e.g., those included in the National Seed Strategy) and programs that restore ecosystems to enhance their resilience to disturbance and resistance to future invasive species infestations, and to meet resource management objectives (e.g., subsistence use).

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.1d. Coordination

Coordinate with adjacent land managers or landowners to pursue a joint approach to control or eradicate invasive species that cross jurisdictional boundaries.

Stakeholder(s):

Land Managers

Landowners

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.1e. Goals & Approaches

Use social science tools to develop consensus around goals or approaches to control or eradicate invasive species.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.1f. Effectiveness

Evaluate the effectiveness of control or eradication actions and share results to improve subsequent efforts.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.2. Wildfires

Reduce the role of invasive species in wildfire frequency, intensity, and extent.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.2a. Coordination

Coordinate between fire management and invasive species management programs across Interior and with the U.S. Department of Agriculture, Department of Defense, non-Federal partners such as State and Tribal fire management programs, and others.

Stakeholder(s):

Fire Management Programs

Department of Defense

Invasive Species Management Programs

State Fire Management Programs

U.S. Department of Agriculture

Tribal Fire Management Programs

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.2b. Partnerships

Promote community-based partnerships that coordinate actions and leverage resources to achieve regional goals, including reducing the introduction and spread of invasive plants that pose a wildfire risk and addressing their impacts on post-fire recovery and restoration efforts.

Stakeholder(s):

Communities

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.2c. Response Strategy

Develop a shared wildfire and invasive species response strategy through the National Invasive Species Council and intergovernmental Wildland Fire Leadership Council to focus management on areas where mutual success is likely and resistance to invasive species and resilience to fire can be enhanced.

Stakeholder(s):

National Invasive Species Council

Wildland Fire Leadership Council

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.2d. Plants & Fuel Loads

Work with land management agencies in rural communities to leverage tools (e.g., outcome-based grazing using livestock) that manage invasive plants and reduce fuel loads.

Stakeholder(s):

Land Management Agencies

Rural Communities

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.3. Tools, Technologies & Methods

Leverage research and innovation to develop safe and cost-effective tools, technologies, and methods to control or eradicate invasive species, restore ecosystems, and adapt to environmental change.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.3a. Eradication & Restoration

Develop and promote new tools and technologies to control or eradicate invasive species and to restore ecosystems.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.3b. Awareness & Understanding

Use social science and other tools to cultivate awareness and understanding of the development and implementation of new technologies.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.3c. Regulatory Requirements

Collaborate across Interior and with partners to meet or exceed regulatory requirements for application of new tools and technologies.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.3d. Decision Support

Develop and promote decision-support tools and best practices to aid managers in planning for and responding to climate and other environmental change, including extreme weather events, that may increase the risk of introductions, spread, and impacts of invasive species introductions.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.4. Environmental Compliance

Increase efficiency of conducting environmental compliance for control or eradication activities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.4a. Compliance Templates

Develop templates and pursue other options to more efficiently and effectively comply with the National Environmental Policy Act, sections 7 and 10 of the Endangered Species Act (e.g., programmatic section 7 consultations), and other statutes.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.4b. Regulatory Streamlining

Streamline regulatory processes and use National Environmental Policy Act Categorical Exclusions, wherever applicable and appropriate, for implementing invasive species control or eradication activities.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

4.4c. Products

Strengthen Interior’s capacity to maintain and register products for which Interior is responsible for invasive species control or eradication.

Performance Indicators

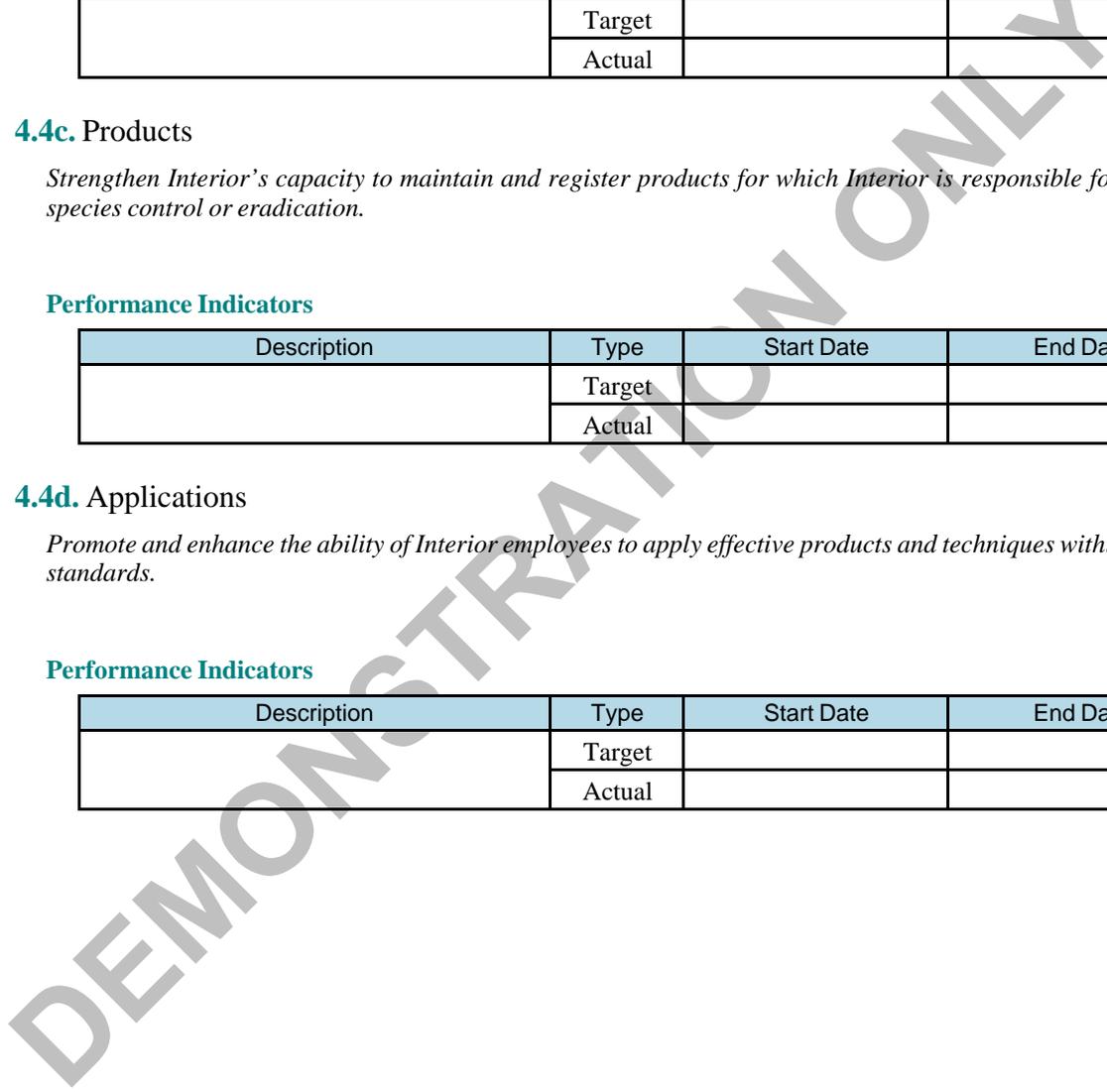
Description	Type	Start Date	End Date
	Target		
	Actual		

4.4d. Applications

Promote and enhance the ability of Interior employees to apply effective products and techniques within Federal standards.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		



5. Data

Improve invasive species data management for decision-making at all levels of government.

Data is fundamental to effective decision-making. Whether it be recording the identification of an invasive species, the location or size of an infestation, the type of control being used, or the result of that control: information is crucial for geospatial mapping, modeling, and evaluating effectiveness of actions taken. This goal highlights the importance of data collection, data storage, data analysis, and data sharing. Consistent with the broader societal efforts at promoting open science and transparency of data, Interior and its partners are elevating awareness about the collection of relevant data and the value of having access to data and data analysis capabilities to aid in invasive species decision-making. This goal promotes equipping managers with the information and technological and analytic tools needed to make informed, science-based decisions in a timely manner... Goal Outcome: Managers and data users, including partners, have access to the data and decision-enabling tools necessary to manage invasive species effectively.

5.1. Databases

Promote user-friendly, interoperable databases to increase efficiency and cost-savings.

Performance Indicators

5.1.1 Units/Offices

Description	Type	Start Date	End Date	Percentage
[Unspecified]	Target			
	Actual			

Percent of land management units or offices contributing data to Biodiversity Information Serving Our Nation (BISON), Nonindigenous Aquatic Species (NAS), EDDMaps, or iMapinvasives and using the North American Invasive Species Management Association standards (Reporting Bureaus: NPS, FWS, Reclamation, BLM)

5.1.2 Users

Description	Type	Start Date	End Date	Number
[Unspecified]	Target			
	Actual			

Number of unique users of the NAS and BISON websites and online tools (Reporting Bureau: USGS)

5.1a. Sharing & Usage

Enhance and promote the use of existing Federal and non-Federal databases that support invasive species information needs and maximize data sharing and availability.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.1b. Quantity & Quality

Improve the quantity and quality of data sharing, including legacy data (data that may be in obsolete formats), in authoritative databases across Interior, and with data integrators (databases combining data from multiple sources).

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.1c. Services & Tools

Maintain and enhance invasive species database services and tools, such as providing geospatial occurrence data, mapping capabilities, risk analyses, early detection alert notifications, and tracking of management actions and their effectiveness, and ensure these data and tools remain accessible to Interior and others.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.1d. Feedback

Respond to feedback from managers on the tools and datasets that would aid managers in decision-making.

Stakeholder(s):

Managers

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2. Collection & Utility

Increase invasive species data collection and its accuracy, consistency, level of reporting, and utility across Interior.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2a. Mapping

Adopt and expand the use of the North American Invasive Species Management Association minimum mapping standards for invasive species across Interior, with the future aim of adopting Federal Geographic Data Committee geospatial standards.

Stakeholder(s):

North American Invasive Species Management Association

Federal Geographic Data Committee

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2b. Capacity

Enhance Interior’s capacity to collect data on management actions and to analyze patterns of success to increase effectiveness.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2c. Environmental DNA

Establish, in collaboration with others, guidance for use of environmental DNA and adhere to that guidance across Interior.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2d. Quality

Develop and use quality assurance and quality control practices and processes for accurate and precise data management for use in integrated authoritative databases.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

5.2e. Citizen Science

Define the role of citizen science in Interior’s invasive species data collection efforts and, where appropriate, promote consistent citizen science training, data collection, and online data submission.

Performance Indicators

Description	Type	Start Date	End Date
	Target		
	Actual		

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Submitter:

Given Name: Owen

Surname: Ambur

Email: Owen.Ambur@verizon.net

Phone:

_e35d7d94-5817-11eb-9f23-9173f282ea00