Rooted in Purpose

Honoring Our Heritage, Shaping Our Future

A Review of the National Wildlife Refuge System

2026

Preface

As we shape the next chapter of America's conservation story, Rooted in Purpose reaffirms the enduring principles on which the National Wildlife Refuge System was built: protect the land, honor its purpose, and keep wildlife at the center of our stewardship.

More than a century ago, President Theodore Roosevelt reminded us that "wild beasts and birds are by right not the property merely of the people who are alive today, but the property of unknown generations, whose belongings we have no right to squander." His words remain a clear directive to stay focused on our core mission—conserving the habitats and species entrusted to our care without distraction, dilution, or deviation from the values that defined our earliest successes.

This report calls us to reaffirm those foundational commitments, cut through the noise, and restore a clear, disciplined vision of stewardship worthy of the generations who will inherit the results of our work. It also challenges us to ensure that the policies, practices, and structures we have relied on for decades remain relevant and effective. Our mission has not changed, but the way we carry it out must continue to evolve to best serve the American people.

The National Wildlife Refuge System is unlike any other federal land management agency. Its singular conservation mission demands that we regularly evaluate whether our organization, resources, and operations are aligned with that purpose.

To that end, I issued Director's Order 230, directing a comprehensive review of the National Wildlife Refuge System. The review examined seven areas critical to our future: mission alignment, organizational structure, available resources, workforce capacity, transparency in policy and guidance, asset and infrastructure management, and opportunities to improve efficiency.

The recommendations in this report are informed by input from employees, partners, and stakeholders across the Refuge System. Together, they provide a path to strengthen our stewardship, sharpen our focus, and ensure the National Wildlife Refuge System remains rooted in purpose for generations to come.



Brian Nesvik

Director, U.S. Fish & Wildlife Service

Foundation

Rooted in Purpose draws on the experience of employees and partners who manage, use and support national wildlife refuges. Conducted under Director's Order 230, issued by U.S. Fish and Wildlife Service (Service) Director Brian Nesvik, the review ran from Dec. 16, 2025, through May 15, 2026.

Reviewers visited refuges and regional offices, conducted surveys and heard directly from employees, retirees, states, tribes, private landowners, hunting and conservation organizations, agricultural partners and refuge friends groups. Program leaders and subject matter experts contributed technical information and reviewed successive drafts.

Their input helped identify practical changes to strengthen field operations, keep effective habitat management tools available and support hunting, fishing and other wildlife-dependent recreation. The Service thanks everyone who contributed time, experience and ideas to the review.

The review included the following surveys, visits, correspondence and discussions:

- 2 internal surveys (1 refuge-only and 1 Servicewide)
- 1 external survey
- 1 refuge manager purpose review exercise
- 41 refuge visits, including 3 in-person visits to urban refuges
- 4 regional office visits
- 106 instances of direct correspondence with organizations, including Farm Bureau organizations, American Lands Council, Ducks Unlimited, Delta Waterfowl and Rocky Mountain Elk Foundation
- 28 in-person stakeholder visits at the Stewart Lee Udall Interior Building
- Direct engagement with private landowners and organizations representing tens of thousands of permittees across the nation
- 78 instances of direct correspondence with retired Service employees
- U.S. Fish and Wildlife Service Retirees Association meeting
- 209 instances of direct correspondence with current Service employees
- Direct correspondence with all 8 Service regional directors
- Regional refuge chief check-ins every two weeks for five months
- Refuge Leadership Team check-ins every two weeks for five months
- Friends groups webinar briefing with 353 unique URLs registered (2.5 hours)
- "Chat with the Chief" with 1,048 unique URLs (2 hours)
- Wage Grade Academy graduation and Q&A session
- Region 5 Annual Maintenance Conference and Q&A session
- Region 5 Refuge Managers/Project Leaders Conference and Q&A session
- Pacific Islands virtual visit and Q&A session

- Hawaiian Islands virtual visit and Q&A session
- Silvio O. Conte National Wildlife Refuge virtual visit and Q&A session

Rooted in Purpose

29 RECOMMENDATIONS | Four themes for the National Wildlife Refuge System

THEME 01 / 10 ACTIONS

Mission Alignment, Habitat Stewardship and Long-Range Planning

1. Update habitat management and public-use policies to reflect operational capacity and partnership opportunities, prioritizing grazing and complementary agriculture and active forest management where appropriate.
2. Support existing strike teams and pursue opportunities to expand their capacity.
3. Use predator control where appropriate to protect sensitive species and support ecosystem balance.
4. Expand training opportunities such as Conservation Leaders for Tomorrow, hunting and shooting sports recruitment, retention and reactivation training, and related programs that reinforce refuge purposes and the role of hunting and fishing in conservation.
5. Revoke the Urban Wildlife Conservation Program Policy and redirect all discretionary program funding to activities that directly support the conservation mission.
6. Establish a Comprehensive Conservation Plan (CCP) Support and Compliance Initiative that includes a community of practice, integration of Super Intelligence (SI), a cross-regional action team to provide surge capacity, streamlined review pathways for refuges with existing plans, and clear accountability measures to ensure every refuge achieves 100% compliance within an 18-month timeframe.
7. Reinstate annual narrative reports for national wildlife refuges to complement the Refuge Annual Performance Plan system, preserve institutional knowledge, provide critical management context, and strengthen long term continuity and accountability across the Refuge System.
8. Elevate compatibility determination declinations to the U.S. Fish and Wildlife Service Director.
9. Require prompt action on compatibility determinations associated with permit or easement applications. If a determination remains unresolved 180 days after receipt of a complete permit application or 270 days after receipt of a complete easement application, elevate the matter to the Director for decision.
10. Review and update Service Manual Chapters 620 FW 2, 601 FW 3, 603 FW 1, and 603 FW 2 as necessary to reflect current operational capacity and partnership opportunities, prioritizing the strategic use of grazing as a core habitat management tool. Expand the complementary use of agriculture and active forest management where appropriate to support and enhance refuge habitat objectives.

THEME 02 / 9 ACTIONS

Organizational Structure, Leadership Roles, Systemwide Operations and Public Access

11. Reduce headquarters and regional office staffing and reallocate positions to refuge operations, prioritizing the people needed to manage habitat, maintain facilities, support public access and protect resources.
12. Prioritize generalist refuge positions and give greater weight to demonstrated merit, practical skills and readiness for greater responsibility when selecting refuge specialists, managers and project leaders.
13. Designate field-based, collateral-duty regional hunting and fishing coordinators, and a national sportsman's access coordinator, integrated into regional and national leadership teams, to strengthen consistent access decisions, support high-quality hunting and fishing opportunities and identify opportunities for expansion.
14. Clarify refuge managers' responsibilities and provide consistent Servicewide guidance to support timely, practical decisions.
15. Improve access to staff expertise, assets, equipment and guidance regardless of regional boundaries, with better coordination between headquarters and field implementation.
16. Increase refuge law enforcement staffing to provide a more consistent field presence, protect refuge resources and improve public safety.
17. To ensure access to the most remote parts of the refuge system, capacity to reach geographically isolated conservation areas must be strengthened. Increase recruitment of qualified pilots in Alaska and improve the processes for hiring pilots and procuring contracted aviation services. Examine the feasibility of establishing a Pacific Monuments receipts account to provide greater flexibility for multiyear planning and consistent access to remote Pacific refuges.
18. To ensure consistency, accountability, and maximized mission delivery, the Partners for Fish and Wildlife Program must be housed within the same program nationwide with clear and well-defined lines of authority.
19. Keep the Refuge System fully integrated within the Service, phase out support structures that duplicate existing Service functions and redirect those resources to the field.

THEME 03 / 5 ACTIONS

Maintenance and Infrastructure

20. Create core centers that position maintenance professionals and heavy equipment to serve multiple refuges.
21. Use shared crews to complete annual and deferred maintenance more efficiently.
22. Improve Maintenance Professional workforce practices to ensure consistent classification, clear advancement pathways supported by a registered apprenticeship program, and meaningful inclusion of heavy equipment coordinators in maintenance planning.
23. Refine the Nationally Significant Project List criteria, along with the annual call memo for five-year deferred maintenance plans, to ensure that priority is given to demolition projects, Maintenance Action Team efforts, and other work that aligns with refuge purposes and advances the Service mission.
24. To improve the accuracy of deferred maintenance assessments and the deferred maintenance backlog estimate, increase the inspection rate of mission critical assets from 75.3% to 100% and define a continuous learning curriculum in construction cost estimating for Facility Management Coordinators.

THEME 04 / 5 ACTIONS

Partnerships, Engagement and Improving Administrative Systems

25. Review and revise policies that impose unnecessary requirements on field employees, ensuring safeguards support safe and effective refuge operations.
26. Direct regional leadership to provide sufficient administrative support and develop a position description that meets daily refuge needs. Employ the use of technology and Super Intelligence (SI) to improve efficiency.
27. Give refuge managers greater ability to strengthen existing relationships and develop new partnerships that expand conservation capacity.
28. Designate a collateral-duty partnership coordinator in each of the 50 states to ensure state partners have a meaningful voice in decisions and wildlife management efforts, and strengthen coordination with states and tribes to align hunting and fishing regulations where appropriate and consistent with applicable law.
29. Strengthen coordination between contracting and field staff, reduce barriers for qualified local businesses competing for federal work, and engage lawmakers on statutory spending limits that constrain operations.

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Introduction

On March 14, 1903, President Theodore Roosevelt set a clear and decisive course for American conservation when he established Pelican Island in Florida as the first national wildlife refuge. Wildlife across the nation was feeling the pressure of a rapidly expanding country, and many

Americans were beginning to recognize that treasured natural resources would not endure without deliberate care. Local resident Paul Kroegel, who lived overlooking the island, understood that its bird colonies needed protection if they were to survive. Kroegel took it upon himself to patrol Pelican Island's shores, speaking with anyone who would listen. Roosevelt saw in Kroegel's vigilance the very essence of the American conservation ethic: respect for natural resources, thoughtful use, and a willingness to act when stewardship demanded it. What began as a simple act to protect a small rookery became the cornerstone of a national commitment to safeguard wildlife and the lands they depend on.

From that humble beginning grew a system built on clarity of intent and the courage to uphold it. Roosevelt went on to establish more than 50 refuges across the nation, places like Breton National Wildlife Refuge in Louisiana, created to safeguard vital seabird colonies along the Gulf; Three Arch Rocks in Oregon, protecting some of the West Coast's most important marine bird nesting sites; and Passage Key in Florida, preserving a critical rookery at the mouth of Tampa Bay. Each of these early refuges served a specific wildlife need. None were chosen because they were easy to acquire or convenient to manage. They were set aside because wildlife depended on them, and because Roosevelt believed the nation had a responsibility to act accordingly.

That principle was, and still is, shared strongly by America's hunters and anglers, who had already witnessed the consequences of unregulated exploitation. They embraced seasons, limits, licensing, and the Federal Duck Stamp not as burdens, but as practical tools to ensure wildlife populations remained strong. As Roosevelt observed, "It is not what we have that will make us a great nation; it is the way in which we use it." That philosophy was reflected in the ethic of responsible use embraced by sportsmen and women who understood that freedom in the field is preserved not by taking all one can, but by choosing wisely what one should, a conservation ethic that helped shape the foundation of the National Wildlife Refuge System and continues to sustain it today.

With 573 National Wildlife Refuges today, the vast lands of the National Wildlife Refuge System are held in trust for the American people. The U.S. Fish and Wildlife Service bears the responsibility of stewarding these lands with the clarity and conviction that defined their creation. Sound management requires a sustainable model that allows the conservation mission to continue despite limitations. Meeting that responsibility today demands an honest evaluation of how well we are maintaining that original clarity of purpose, as well as a recognition of the full scope of responsibilities carried by the System.

Rooted in Purpose provides an inflection point. The challenges facing wildlife are as real and consequential as those Roosevelt confronted, but the landscape of responsibility is more complex. The question before us is whether we are meeting challenges with the same clarity of intent and willingness to act that defined the founding of the System, or whether we have allowed drift, distraction, and competing priorities to weaken our course.

To inform our recommendations and evaluation process, we undertook a thorough review of the statutory intentions and purpose of each refuge. It became clear that the Refuge System is experiencing pressures that cut across programs, regions, and disciplines. Staff, conservation partners, and other stakeholders described an organization that remains deeply committed to its mission but increasingly constrained by structures and processes that no longer align with present-day realities. Administrative demands continue to grow, planning needs outpace available capacity, infrastructure ages faster than it can be maintained, and policy interpretations sometimes reduce access to the tools needed to support habitat and visitor management. Concerns about inconsistent application of policy and land management practices across refuges also appeared frequently in this review. While many of the recommendations presented here emphasize the importance of maintaining decision-making influence for refuge managers, it is equally important that policy and management practices be applied consistently across the System to best serve the American public. Together, these overlapping pressures now shape the daily experience of staff and partners in ways that limit responsiveness, slow decision making, and make it more challenging to sustain high-quality conservation outcomes.

Throughout this review, one theme emerged consistently: every refuge should be considered open to hunting and fishing unless those uses would be inconsistent with refuge purposes, sound wildlife management, or public safety. The question should not be whether opportunities can be provided, but how they can be responsibly developed and administered. Fulfilling that commitment requires the organizational capacity, expertise, and leadership necessary to implement access opportunities consistently across the Refuge System.

Building on these findings, 29 recommendations emerged, organized into four themes that collectively address these concerns and strengthen mission delivery across the System. *1) Mission Alignment, Habitat Stewardship, and Long-Range Planning* focuses on restoring clarity of purpose, strengthening planning, and ensuring that conservation tools remain available and effective. *2) Organizational Structure, Leadership Roles, Systemwide Operations, and Public Access* examines how responsibilities are distributed, how decisions move through the organization, how access opportunities are supported, and how leadership structures can better advance mission delivery. *3) Maintenance and Infrastructure* underscores the importance of safe, reliable, and functional visitor access and recommends improvements in prioritization, assessment, and long-term asset management. *4) Partnerships, Engagement, and Improving Administrative Systems* emphasizes strengthening relationships with states, tribes, communities, and conservation partners, while improving the administrative systems that support daily work.

This report begins with the premise that a course correction is not only possible, but necessary. *Rooted in Purpose* is not a celebration of where we are; it serves as an honest assessment of where we have diverged from our foundational commitments and where renewed discipline is required. It calls for a return to principles that shaped the Refuge System's earliest successes: protect what must endure, prioritize wildlife needs, and make decisions with a long view rather than short-term convenience.

If the Refuge System is to remain a meaningful instrument of conservation, we must be willing to examine our current trajectory with focused candor and determine where adjustments are overdue. This is our opportunity and our responsibility to right the ship, refocus on the mission that justified the System's creation, and ensure that future generations inherit something stronger, not diminished by our stewardship.

Outreach and Engagement

The creation of this review was shaped not only by history and mission, but by the voices of those who care deeply about the future of the National Wildlife Refuge System. We sought to understand the perspectives of the people who steward, use, and depend on these lands. This effort included structured internal and external surveys, individual conversations, written comments, direct engagement with partners across the country, and visits to regions and refuges where we received valuable in-person feedback from those closest to the work. These conversations identified both operational strengths and significant weaknesses. The findings and recommendations that follow are informed directly by those who have a vested interest in the success of the System. Local communities, private landowners, friends groups, interest groups, associations, businesses, tribal and state governments, Service staff and retirees at every level all contributed insights that were carefully considered and integrated into this review.

We listened because this System belongs to the American people, and its strength has always come from those who stand behind it. The ideas shared through these outreach efforts were candid, thoughtful, and grounded in firsthand experience; from community members who live beside our refuges to the dedicated professionals who work in the field each day. Face-to-face conversations during site visits were especially valuable, offering an unfiltered view of local challenges and opportunities across diverse landscapes. Taken together, these perspectives revealed both the commitment that sustains the Refuge System and the gaps that demand renewed clarity, direction, and accountability.

The urgency expressed through this process underscores the need for course correction and forms a critical foundation for the recommendations in this review. This document reflects not only a mission, but a shared dedication to ensuring that our refuges continue to operate under their original intent and serve wildlife and the American people for generations to come.

We recognize the vital importance of tribal consultation in the recommendations that follow. The Service is committed to further engagement with tribal governments in a government-to-government manner and to seeking feedback informed by traditional ecological knowledge and by historic connections to these lands.

The insights gathered through this outreach not only illuminate today's challenges but also underscore the importance of a unified organizational identity rooted in the Refuge System's founding purpose. With this shared understanding, we turn to the values and principles that must guide how we carry forward that identity.

We Ride for The Brand

Building on the perspectives shared by partners, communities, and staff, it becomes clear that the Refuge System's effectiveness depends not only on purpose, but on a shared identity that guides how we work together. That identity begins with wildlife and extends to the people and landscapes connected to refuge lands. It is strengthened when decisions consistently reflect statutory purpose and weakened when direction becomes fragmented or inconsistent.

To "ride for the brand" means demonstrating our mission through steady, purpose-driven action. The Refuge System's identity is not defined by messaging or symbolism, but by aligning daily decisions with the laws and purposes that established each refuge. This alignment shapes how we work with one another, how we support partners, and how we carry forward more than a century of conservation responsibility.

Living that identity also means recognizing the scale at which landscapes function. Wildlife moves across watersheds, migration routes, and ecological boundaries. Fire, drought, invasive species, and resource needs cross those boundaries as well. In this context, refuges serve as anchors—places that provide stability and continuity across larger systems. Coordinated work with states, tribes, local communities, and conservation partners is essential to achieving outcomes that matter at meaningful scales.

To support this coordination, establishing a partnership coordinator in each state would create a clear, consistent structure for working with states, tribal governments, private landowners, local communities, and NGOs. Housing this collateral duty role within the Partners for Fish & Wildlife Program should be considered to ensure alignment with existing Servicewide partnership models.

The Blue Goose

This identity is also reflected in the symbols that have long represented the Refuge System. The Blue Goose, designed by J.N. "Ding" Darling, has served as a recognizable emblem of waterfowl conservation for nearly a century. As the System prepares to launch the *Find Your Wild* campaign in 2026, the Blue Goose will continue to be a central symbol of the Refuge System's conservation mission.

Continuous Learning Opportunities

Raising awareness of what makes the System different from all other land management agencies begins internally. Feedback from staff and partners indicates that the System has experienced mission drift in recent years and a lack of identity. Incoming staff must be familiar with our mission, refuge statutory purposes, and the six wildlife-dependent recreational activities from the Improvement Act.

The Conservation Leaders for Tomorrow (CLfT) training is offered by the Max McGraw Wildlife Foundation. Several Service staff serve on the CLfT guidance committee and participate as instructors. Although the course has an associated cost, scholarships are available for Service

employees. Trainings are held at various locations across the country, including the Service's National Conservation Training Center (NCTC). Evaluations show that the program is highly effective and provides strong exposure to hunting, fishing, and their importance in wildlife management and conservation. To date, 148 Service employees have completed the course, highlighting an opportunity to expand participation. U.S. Fish and Wildlife Service Director Brian Nesvik has released a director's memo intended to drive recruitment targets to 100 employees for the 2026-2027 cycle.

The Council to Advance Hunting and Shooting Sports (CAHSS) offers training around the "R3" movement which stands for "Recruitment, Retention, and Reactivation." This movement strives to encourage participation and support for shooting sports, hunting, and angling. Free training for staff is available online and can provide staff with insight into the value of hunting and shooting sports and an understanding of their place within the System.

Increasing recognition of why the system exists, understanding of those who support it, and what is needed to propel the system into the future will help staff open new opportunities for traditional public recreation and increase public support for the System.

250 Partnership Opportunities for America's 250

On July 4, 2026, the United States celebrated the 250th anniversary of Independence Day, a milestone that honors two and a half centuries of growth, resilience, and commitment to the ideals of freedom. This anniversary invites reflection on the nation's history as well as renewed dedication to the shared responsibilities that ensure a strong future for all Americans.

In recognition of this significant moment, the National Wildlife Refuge System has identified 250 meaningful projects that can be supported and completed through partnerships with organizations across the country. These projects were selected to showcase the diversity of work carried out across the Refuge System and to highlight the many ways partners contribute to conservation, stewardship, and public service.

Partnerships remain essential to the success of the Refuge System. They help expand capacity, build community connections, and increase opportunities for people to engage with and benefit from natural spaces. The value that refuges provide to the American public is deep and far reaching. Refuges protect wildlife and habitat, provide and support outdoor recreation, create educational opportunities, and strengthen local economies. Each of the 250 identified projects reflects these commitments and offers a chance for partners and communities to take part in conservation in action during a historic anniversary year.

Together, these projects represent an estimated cost of $47.3 million. This investment will create opportunities to complete critical on the ground work that supports wildlife and refuge purposes, improve visitor experiences, address long standing needs, and reduce the deferred maintenance backlog across the System. By advancing this work in 2026 and beyond, partners will help

ensure that the National Wildlife Refuge System continues to serve the American people for generations to come.

2027 Conference

Leadership should evaluate the feasibility of convening a National Wildlife Refuge Conference in 2027 at the National Conservation Training Center (NCTC) inviting states, refuge friends groups, national, and state-based non-governmental organizations. The goals of this conference would be to highlight the refuge system, its needs, and reaffirm the purposes of each individual refuge. The conference would also provide a forum for presenting this review, identifying action items resulting from it, and opportunities for where our partners can engage to support the system in preparation for its 125th Anniversary in 2028.

The timing for such a conference aligns with encouraging external support. Initial conversations with various partner groups indicate strong support for the 2027 conference and potential sponsorship of the event.

Opportunities to Increase Congressional Support

This review offers an important opportunity to engage with lawmakers and strengthen the support needed for the continued success of the System. The recommendations included in this document provide a basis for engaging Congress on practical improvements to refuge operations. They reflect a balanced, practical approach that aligns with national priorities and demonstrates the value of investing in the System's future.

The approach outlined here reconnects the activities of the System with its original purpose. It emphasizes a return to the core functions that Congress entrusted to the System while also identifying ways to carry out these responsibilities more effectively than in the past. By focusing on legally mandated duties, the recommendations chart a path for improved performance, modernized practices, and enhanced service to the public.

These recommendations also underscore the importance of fiscal responsibility and transparent stewardship. They highlight our obligation to the American people to manage and protect the lands placed in the care of the System, ensuring they remain healthy, accessible, and resilient for generations to come. Through thoughtful planning and responsible investment, this review reinforces the System's commitment to serving both present and future needs.

From Silos to Working Together

Currently, the U.S. Fish and Wildlife Service is organized into eight regions in addition to headquarters. Throughout this review, the term "silos" surfaced repeatedly. Regions often develop step down guidance from headquarters policies, and both the guidance itself and its interpretation can vary widely across regions and even among individual refuges. These regional and programmatic boundaries can create invisible barriers that hinder conservation delivery and limit the sharing of staff, expertise, and resources.

A recurring theme in the review was the lack of uniformity in how policy and land management practices are carried out among refuges. Although the recommendations herein affirm the importance of preserving local decision making, they also highlight the value of applying policy and management approaches consistently across the System.

This review underscores the need to move toward a more integrated model where resources, expertise, and guidance are shared across regional lines. In an era of declining staff and budgets, the ability to access talent, equipment, and operational capacity across traditional boundaries will be essential. Breaking down these silos, while ensuring that policy and management practices are implemented consistently across all refuges, is critical to delivering effective and cohesive conservation for the next century.

A System Connected to a Larger Mission

Over the course of this review, the value of the Refuge System as part of the U.S. Fish and Wildlife Service became unmistakably clear. The System must remain fully integrated within the Service. The mission of the Service: *Working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people,* is directly advanced by the Refuge System, which contributes to conservation across a landscape that extends far beyond refuge boundaries.

The reach of conservation is without borders, and the Refuge System's ability to function as part of the broader Service is essential to achieving the greatest possible impact. To do this, the System must remain a partner to other programs and not a separate entity.

Recommendation: Clarify refuge managers' responsibilities and provide consistent Servicewide guidance to support timely, practical decisions.

Recommendation: Improve access to staff expertise, assets, equipment and guidance regardless of regional boundaries, with better coordination between headquarters and field implementation.

Recommendation: Expand training opportunities such as Conservation Leaders for Tomorrow, hunting and shooting sports recruitment, retention and reactivation training, and related programs that reinforce refuge purposes and the role of hunting and fishing in conservation.

Recommendation: Designate a collateral-duty partnership coordinator in each of the 50 states to ensure state partners have a meaningful voice in decisions and wildlife management efforts, and strengthen coordination with states and tribes to align hunting and fishing regulations where appropriate and consistent with applicable law.

Recommendation: Keep the Refuge System fully integrated within the Service, phase out support structures that duplicate existing Service functions and redirect those resources to the field.

A Purpose Worth Managing For

Each unit within the National Wildlife Refuge System was created with clearly defined legal purposes that articulate why the refuge exists and what it is intended to conserve. These establishment purposes, set through statute or formal administrative action, guide refuge management. Where refuge purposes conflict current practices, refuge purposes receive priority, consistent with applicable law. They form the guiding framework for determining which activities are appropriate on a refuge and serve as the foundation for all management and public-use decisions. Adhering to these purposes is essential to ensure that each refuge remains aligned with its original conservation intent.

Early in the System's history, Congress recognized that as public interest in refuge lands grew, a strong legal framework was needed to ensure these areas remained true to their founding intent. The Refuge Recreation Act of 1962 and the Refuge Administration Act of 1966 set that foundation by requiring refuge managers to allow public uses only when they were compatible with the individual refuge's purposes. These laws brought consistency and discipline to a rapidly expanding system, clarifying that conservation and purpose would guide decision making.

Three decades later, Congress strengthened and unified this direction. The National Wildlife Refuge System Improvement Act of 1997 established the priority of wildlife-dependent recreation and reaffirmed the longstanding principle that wildlife comes first on refuge lands**.** Building upon earlier statutes, the Act required establishing purposes to remain central to planning, management, and public use decisions, ensuring that every action taken on refuge lands supports the conservation of fish, wildlife, plants, and their habitats for the continuing benefit of the American people. In doing so, Congress made it explicit that refuge purposes are not flexible, interpretive suggestions, but enforceable standards that must guide every decision. Collectively, these cornerstone laws mandate the consistent application of statutory provisions, which is essential for preventing and correcting mission drift.

The National Wildlife Refuge System Improvement Act of 1997 (Improvement Act) places statutory purposes above the System mission, stating that *"…if a conflict exists between the purposes of a refuge and the mission of the System, the conflict shall be resolved in a manner that first protects the purposes of the refuge, and, to the extent practicable, also achieves the mission of the System."* This statutory requirement is implemented in the U.S. Fish and Wildlife Service Manual at 601 FW 1. Common statutory purposes for refuges are shown in Table 1.

Table 1: Common Refuge Statutory Purpose References

Statutory Purpose	Extract from Legislative Authority
Migratory Bird Conservation Act (1929)	... for use as an inviolate sanctuary, or for any other management purpose, for migratory birds. 16 U.S.C. § 715d

Migratory Bird Hunting and Conservation Stamp Act (1934)	... as Waterfowl Production Areas subject to "... all of the provisions of such Act [Migratory Bird Conservation Act] ... except the inviolate sanctuary provisions ..." 16 U.S.C. 718(c)
Fish and Wildlife Act (1956)	... for the development, advancement, management, conservation, and protection of fish and wildlife resources ... 16 U.S.C. § 742f(a)(4)
Refuge Recreation Act (1962)	"... suitable for— (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species ..." 16 U.S.C. § 460k-1 "... the Secretary ... may accept and use ... real ... property. Such acceptance may be accomplished under the terms and conditions of restrictive covenants imposed by donors ..." 16 U.S.C. § 460k-2
Endangered Species Act (1973)	... to conserve (A) fish or wildlife which are listed as endangered species or threatened species .... or (B) plants ... 16 U.S.C. § 1534
Alaska National Interest Lands Conservation Act	... (i) To conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to, waterfowl, peregrine falcons, other migratory birds, black bear, moose, furbearers, and other mammals and salmon; (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats; (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge. 94 Stat. 2386, dated Dec. 2, 1980. (Alaska National Interest Lands Conservation Act)

The Improvement Act also identifies six wildlife dependent recreational uses: hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. These recreational uses are wildlife dependent as defined by the Improvement Act and must be compatible with the Refuge's establishment purpose(s). The current number of refuge units open to each type of recreational use is detailed in Table 2. It is important to note that some for some

refuge units, certain recreational uses are simply incompatible with the Refuge's establishment purpose(s).

Table 2: Refuge System Units Open to Wildlife Dependent Recreational Uses by Category

Recreational Use	Number of Units
Hunting	444
Fishing	379
Wildlife Observation	487
Wildlife Photography	487
Environmental Education	371
Interpretation	421

1. Data are from the Refuge Annual Performance Plan (RAPP)
2. Data from FY 2025
3. Values are reported as the number of units open to a given wildlife-dependent recreational use, out of the 621 units that submitted data. Counts may include a limited number of duplicate records because some refuges report data for more than one district.

Purpose Review

A review of statutory refuge purposes was completed as part of this effort in coordination with all National Wildlife Refuge and Wildlife Management Area managers, forming the basis for understanding how well current activities align with the legal mandates that guide each unit. In accordance with 601 FW 1, the Service maintains a central list of statutory purposes for every unit. As part of this review, each manager examined the purpose listed for their refuge and identified any updates needed to ensure accuracy with statutory or historical records. Maintaining accurate purpose information is essential because the management of every refuge must reflect its establishment purpose under the Improvement Act.

As managers worked through this review, they also identified three activities on their refuge that directly support statutory purpose, along with any activities that do not. The intent was not to discontinue activities that fall outside of purpose, but to ensure that limited resources are directed first toward work required by law. Many station level activities were found to be well aligned with statutory purposes or with the six wildlife dependent recreational uses recognized under the Improvement Act. At the same time, the review revealed places where resource allocation has drifted away from purpose, indicating the need for deliberate correction to maintain alignment with the legal foundation of each refuge.

Extensive examples were provided of activities that do not directly support statutory purpose, most of which stem from administrative requirements rather than management needs on the land (Table 3). Administrative tasks, maintaining historic structures, managing easements, addressing vandalism, and issuing special use permits were the most frequently mentioned, with administrative burden far surpassing all others. Managers described the cumulative effect of data

calls, required training, inventories, purchasing processes, and similar obligations, all of which reduce the time available for conservation work needed to achieve refuge purposes. Although this administrative burden is examined in more detail elsewhere in the review, its influence on purpose alignment was a consistent theme raised across the System.

Table 3: Major Themes for Activities Not in Alignment with Refuge Purpose as Identified by Refuge Managers

Theme	Example Activities	Count
Administrative, Reporting, & Compliance Burden	Excessive paperwork, data calls, redundant reporting, clerical overload, absorbing non-biological admin roles, and time spent on federal business tasks.	250
Staffing Shortages & Limited Capacity	Chronic understaffing, absorbing non-primary duties (e.g., logistics, clerical, facilities), inability to focus on conservation due to lack of personnel.	142
Compliance, Safety, & Training Requirements	Repetitive or excessive safety protocols, mandatory training, compliance checks, and time spent on hiring/admin instead of conservation.	165
Infrastructure & Facilities Maintenance	Maintaining buildings, roads, visitor centers, and historic structures; biological staff diverted to maintenance or logistics.	68
Non-purpose Public Use & Visitor Services	Visitor center management, public outreach, recreational programming, and education not directly tied to statutory conservation mission.	59
Contracting & Procurement Delays	Delays and complexity in procurement, contracting, and acquisition; staff time spent	40

	on non-mission procurement tasks.	

1. A total of 547 responses were received.
2. Because many responses addressed multiple themes, a single response may be counted in more than one category.

The same review also generated extensive discussion about the habitat management tools that remain essential for meeting statutory purposes. Throughout the review, managers consistently emphasized that maintaining flexibility to use the full suite of science-based management tools is critical to fulfilling refuge purposes. They also stressed that any return to the proposed 2024 revisions to the Biological Integrity, Diversity, and Environmental Health (BIDEH) policy would undermine that flexibility by imposing additional procedural requirements and delaying timely management actions.

Agricultural practices such as farming cooperatives, force account farming, and targeted cropland management were identified as essential for supporting the food base relied upon by migratory birds. In many locations, genetically engineered crops allow refuge staff to produce more food using fewer pesticides and, on less land, improving habitat conditions while reducing environmental impacts. Wetland management techniques, including moist soil units and impoundments, provide critical seasonal resources for waterfowl and shorebirds, while food plots and wildlife openings established from natural vegetation support a variety of upland species. In forested refuges, commercial silviculture offers a practical means of improving forest structure while conserving limited staff capacity.

Effective invasive species management also depends on maintaining both appropriate treatment tools and sufficient operational capacity. Selective herbicide and pesticide applications remain necessary for controlling invasive species, maintaining ecological balance, and ensuring crop yields where agricultural management supports refuge purposes. Managers further noted that invasive species strike teams provide critical mobile capacity by bringing dedicated staff who can rapidly respond to priority infestations, support early detection and monitoring, develop and administer cooperative agreements, and implement integrated pest management strategies. By serving as a force multiplier through technical expertise, operational support, data management, and partnership coordination, these strike teams help refuges overcome staffing limitations and deliver more timely, effective, and scalable invasive species control.

The review also underscored the importance of maintaining the full suite of wildlife and habitat management tools needed to sustain ecosystem function. Effective fuels management, including prescribed fire and grazing, was repeatedly identified as essential for reducing hazardous fuel loads and maintaining healthy habitat conditions. Predator management likewise remains an important conservation tool for supporting nesting success and protecting vulnerable species during critical life stages. Strategic predator control can restore ecosystem balance by reducing

predation pressure on priority wildlife populations while also restoring habitat integrity, reducing human-wildlife conflicts, and supporting long-term conservation outcomes.

Conservation partners who contributed to the review echoed these themes. Partners from local communities, agriculture, conservation organizations, and state agencies emphasized that the tools needed to meet statutory purposes must remain available. They noted that active management practices have long supported the species and habitats the Refuge System was established to conserve. At the same time, they expressed concern about increasing procedural and administrative constraints and encouraged the Service to ensure that managers retain both the authority and the practical ability to use the full range of habitat management tools required to meet statutory obligations.

Taken together, the findings from this review point toward a consistent conclusion. While most refuge activities continue to support statutory purposes, non-purpose workload has grown to a level that limits the System's ability to remain fully aligned with the National Wildlife Refuge System Improvement Act. Restoring that alignment will require sustained attention to reducing administrative burdens, ensuring accurate and complete statutory purpose documentation, and reinforcing the central role of active habitat management in meeting the purposes for which each refuge was established.

Recommendation: Update habitat management and public-use policies to reflect operational capacity and partnership opportunities, prioritizing grazing and complementary agriculture and active forest management where appropriate.

Recommendation: Support existing strike teams and pursue opportunities to expand their capacity.

Recommendation: Use predator control where appropriate to protect sensitive species and support ecosystem balance.

Refocusing on What Matters Most

The Service has completed reviews and strategic plans for the National Wildlife Refuge System throughout its history, including *Fulfilling the Promise (1999)* and *Conserving the Future (2011).* Despite their scope, these reviews did not provide the practical guidance needed to address longstanding operational challenges. One of the major recommendations from *Conserving the Future* was the creation of an Urban Refuge Initiative, intended to help connect Americans with nature, particularly those living near urban centers. Following *Conserving the Future*, Director’s Order 208 was issued which was later superseded by Service Manual Chapter 110 FW1, which is the Service’s Urban Wildlife Conservation Program Policy.

The review underscores that the System cannot continue supporting efforts that pull capacity away from statutory responsibilities. Past initiatives both in expanding visitor services infrastructure and in implementing national urban programs have sometimes fragmented focus and diluted mission adherence across the System.

Visitor Services Programs

Visitor centers exemplify the tradeoffs. Many were built with special funding but now require sustained staffing and maintenance that exceed station capacity. While visitor services and visitor centers provide significant value for public outreach, environmental education, and interpretation, they should not come at the expense of core management objectives for individual refuge units. Staff repeatedly emphasized that investments in facilities must not outpace the capacity to operate and maintain them, particularly when essential habitat and management needs remain unmet.

Several examples were noted by staff and partners in which a visitor center was built or expanded without sufficient funding for staffing or maintenance. Given current operational constraints across the system, some staff have suggested temporarily shuttering or permanently closing certain visitor centers to refocus efforts on core conservation work. These recommendations were framed not as opposition to public engagement, but as a recognition that limited resources must first support the statutory purpose of each refuge.

These suggestions were accompanied by mitigation ideas. For instance, enhanced interpretive exhibits and virtual interpretation delivered through QR codes can provide meaningful visitor engagement without the maintenance requirements or staffing needs associated with operating a visitor center. It was evident through this review that this function can also be accomplished by the local communities, non-governmental organizations, volunteers, and friends groups. Such approaches offer a way to maintain public access and education while ensuring that the bulk of resources remain directed toward on the ground conservation.

Urban Wildlife Conservation Program

The Urban Wildlife Conservation Program also warrants careful review. The Fish and Wildlife Service Manual at 110 FW 1.5 directs refuge managers to *"be flexible when evaluating Urban Wildlife Conservation Program activity compliance with the appropriate use policy (603 FW 1). **Nontraditional** activities that can help new audiences become familiar and comfortable with fish, wildlife, and their habitats may be considered appropriate uses on an Urban Refuge."* This direction requires further review to ensure it aligns with the intent of the Improvement Act. The Act identifies six wildlife dependent recreational uses including environmental education and interpretation. Provided that these uses are compatible with and support the Refuge's establishing purpose, they are considered priority public uses of the System.

The Improvement Act clearly states that the System should *"provide increased opportunities for families to experience compatible wildlife dependent recreation, particularly opportunities for parents and their children to safely engage in **traditional** outdoor activities, such as fishing and hunting."* When compared with that language, the flexibility provided at 110 FW 1.5 warrants review to ensure consistency with the Improvement Act and refuge purposes.

A revocation of the entire Service Manual Chapter at 110 FW1 is necessary to return the Service's focus to our core mission, refuge establishment purposes, and to resolve inconsistencies with the Improvement Act such as language referencing "***Nontraditional Activities."*** In practice, the flexibility in 110 FW 1.5 encourages activities unrelated to statutory purpose. Staff and conservation partner observations throughout this review indicate that social justice work, diversity initiatives, and outreach efforts targeted at disadvantaged communities have increasingly shifted management attention and resources away from purpose-driven conservation.

$78,304,000 has been allocated to the Urban Wildlife Conservation Program since FY 2014. $54,000,000 of that total was from Congressional line-item funding, while the remaining $24,304,000 was allocated on a discretionary basis from base funding. This discussion and associated recommendations are not intended to conflict with congressional intent. All future discretionary allocations from base funding must be assessed against the establishment purposes of each refuge and the greater mission of the System. This recommendation does not argue against the value of wildlife education; however, in a time of limited resources, the highest priority must be placed on activities that directly support refuge purposes, wildlife-dependent recreation, and the statutory mission of the Service. Environmental education and interpretation are recognized priority public uses when compatible. Investments in these activities should support refuge purposes and be balanced with the resources needed for habitat management and other essential refuge operations. Throughout this review it became evident that other groups such as local communities, non-governmental organizations, volunteers and friends groups stand ready and willing to provide wildlife education opportunities.

Recommendation: Revoke the Urban Wildlife Conservation Program Policy and redirect all discretionary program funding to activities that directly support the conservation mission.

The Structure That Supports the Mission

The National Wildlife Refuge System's current organizational structure at the Headquarters level is comprised of six primary divisions responsible for budget, natural resources, visitor services, infrastructure, realty, and law enforcement. In many regions, the divisions mirror the Headquarters structure, with some exceptions. For the purpose of providing context for the sections that follow, the focus here will be on the six primary Headquarters divisions, as their functions and coordination form the national framework through which the Refuge System delivers on its mission and where opportunities for improvement often become visible.

Division of Budget, Performance, and Workforce

The NWRS Division of Budget, Performance, and Workforce carries out several core functions for the Refuge System: budgeting, performance management, workforce planning, and serving as a primary point of contact for key national partners.

The Division works closely with the Service's Budget Office and others to develop national Refuge System budget proposals. After appropriations are enacted, it allocates funds to

headquarters divisions and the FWS regions and oversees how those funds are used. The Division also manages performance assessment and reporting through the Refuge Annual Performance Plan (RAPP). This information is shared with several stakeholders including Congress, The Department of the Interior, Office of Management and Budget (OMB) and partners organizations.

Division of Natural Resources and Conservation Planning
The Division of Natural Resources and Conservation Planning provides national leadership, technical expertise, and scientific support to help refuges meet their conservation purposes and deliver priority public uses. Its work integrates planning, habitat restoration, scientific information, and resource management so the Refuge System can respond effectively to changing conditions and emerging challenges.

The Division's responsibilities include habitat restoration, conservation planning, scientific analysis, and resource policy. Staff support voluntary conservation across terrestrial, coastal, and marine ecosystems and offer guidance on Farm Bill programs and other national initiatives. The Division ensures that reliable interdisciplinary science, from wildlife health and environmental quality to long term monitoring, supports refuge decision making. It also provides national expertise in areas such as wilderness stewardship, wild and scenic rivers, invasive species, island restoration, environmental contaminants, and oversight of mineral and energy activities on refuges.

Together, these functions strengthen the Refuge System's capacity to plan, restore, and manage lands and waters in ways that support wildlife, habitat resilience, and responsible public use nationwide.

Division of Visitor Services and Communications
The Division of Visitor Services and Communications guides recreation, public engagement, and communications across the Refuge System. It helps refuges welcome both in person and virtual visitors, manage priority public uses, develop interpretive and outreach materials, and support the work of Friends groups and volunteers. The Division also provides guidance for managing cultural resources.
Its responsibilities include shaping policy for recreation and visitor experiences, coordinating interpretation and branding, supporting digital engagement, and advancing collaborative conservation efforts that help people connect with refuge lands and waters.

Infrastructure Management Division
The Infrastructure Management Division supports the Service by overseeing engineering, construction, facilities management, and environmental compliance. Its work helps ensure that refuge infrastructure remains safe, functional, and aligned with conservation goals so refuges can protect fish, wildlife, and habitats while supporting priority public uses.

The Division's responsibilities include engineering design and construction, maintenance of essential facilities, and guidance on environmental compliance requirements. Staff provide technical support and subject matter expertise to ensure infrastructure is sustainable, resilient, and suited to the needs of refuge lands and surrounding communities. The Division also makes strategic use of resources by prioritizing solutions that reinforce conservation outcomes and enhance visitor and community well-being. These functions are intended to maintain infrastructure necessary for statutory refuge operations.

Division of Realty

The Realty Division advances the Refuge System's mission by working with states, local governments, and private landowners to conserve habitat and expand opportunities for wildlife dependent recreation. It manages land acquisition, easements, and other real property actions that improve access, strengthen habitat connectivity, and support effective refuge management. The Division also oversees cartography and land surveying to maintain accurate refuge boundaries, preserve essential land records, and guide sound decisions about facility locations and land management.

In addition, the Division provides guidance on rights of way, land records management, and programs that deliver payments to local governments, helping maintain strong relationships with neighboring communities. These efforts ensure that refuge lands are well documented, responsibly managed, and available to support both conservation and public use.

Division of Refuge Law Enforcement

The Division of Refuge Law Enforcement plays a vital role in protecting the National Wildlife Refuge System. Federal Wildlife Officers help ensure the safety of employees and visitors, safeguard facilities and equipment, and protect the natural landscapes that support the Service's conservation mission. Their work spans daily patrols, monitoring activity on refuge lands, investigating potential violations, and taking enforcement actions when needed to address threats to natural resources or public safety. Officers also maintain strong working relationships with federal, state, and local agencies, collaborating through coordinated operations, information sharing, and joint responses to issues that arise on or near refuge lands.

The Ground We Stand On: Assessing Today's Workforce Capacity

Measuring the Workforce That Carries the System Forward

The National Wildlife Refuge System workforce, as of May 1, 2026, consists of 2,294 employees responsible for managing more than 95 million acres of land and 760 million acres of submerged lands and waters. The Refuge System depends on a broad range of professional expertise, including refuge managers, park rangers, maintenance staff, archaeologists, foresters, hydrologists, planners, engineers, administrative staff, and many others. Staff serve under several types of appointments and work schedules, including temporary, term, permanent seasonal, and permanent positions.

For the purposes of the analyses that follow, temporary employees are defined as employees with appointments not exceeding one year. Most temporary employees are seasonal staff serving under time-limited appointments, typically for up to 1,039 hours within a season. Term employees serve appointments lasting more than one year and typically do not exceed five years. Permanent seasonal employees are guaranteed at least 13 pay periods of work per year and may work up to 25 of the 26 pay periods. Permanent employees typically serve full-time across all 26 pay periods. While nuances within each category exist, they are considered statistically insignificant for the purposes of this analysis.

All data presented here rely on Organizational Codes within the Service's Corporate Master Table and records within the Federal Personnel and Payroll System (FPPS) Combined File History. Any reporting or analysis errors are assumed to be statistically insignificant. This analysis does not include fire personnel due to the recent creation of the U.S. Wildland Fire Service. Fire and law enforcement personnel were identified in the dataset by special program ID, special population code, retirement code, position description number, and position title. For consistency, staffing totals are from pay period 16 of each year from the period between 2013 and 2025.

Understanding current workforce resources requires recognizing that staffing levels shift continually over time. This analysis examines the workforce from 2013 to 2025 to provide a clear picture of long-term trends. Permanent full-time staffing (excluding fire and law enforcement personnel) fell approximately 17% between 2013 and 2025.

The trends in numbers of permanent workforce full-time employees (FTEs) over time (2013-2025) by employee assignment area are shown in Tables 4,5, and 6. While the overall permanent workforce decreased by 17%, the distribution of change across assignment areas is noteworthy. Changes in number of employees in the field, headquarters, and regional offices are depicted in Figure 1. Field-based employees, those closest to on-the-ground conservation delivery, experienced the **greatest decline, approximately 25%.**

Table 4: National Wildlife Refuge System Field Employees 2013 vs. 2025

Region	2013 FTE	2025 FTE	% Change
Pacific	204	183	-10%
Southwest	252	227	-10%
Midwest	347	259	-25%
Southeast	418	276	-34%
Northeast	253	184	-27%
Mountain-Prairie	346	274	-21%
Alaska	195	121	-38%

Pacific Southwest	197	137	-30%
TOTAL	2212	1661	-25%

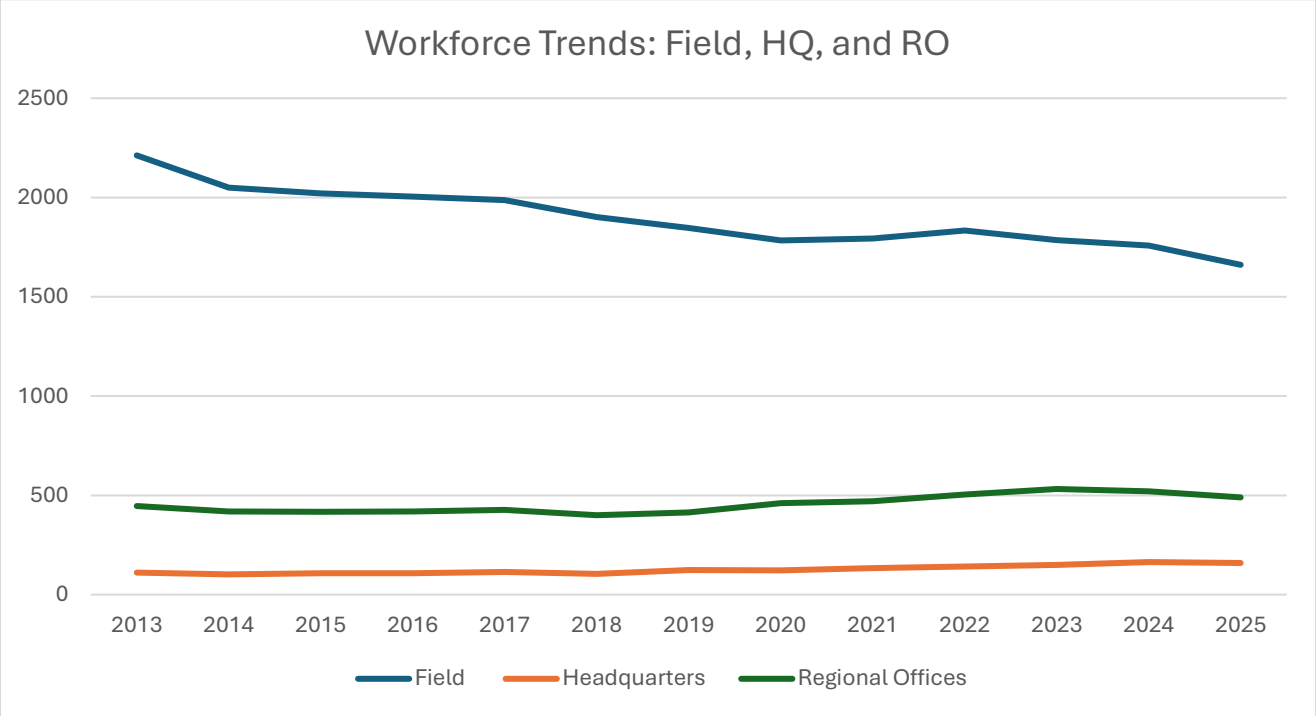
Table 5: National Wildlife Refuge System Regional Office Employees 2013 vs. 2025

Region	2013 FTE	2025 FTE	% Change
Pacific	51	72	41%
Southwest	60	62	3%
Midwest	60	69	15%
Southeast	84	82	-2%
Northeast	53	51	-4%
Mountain-Prairie	66	66	0%
Alaska	40	52	30%
Pacific Southwest	33	35	6%
TOTAL	447	489	9%

Table 6: National Wildlife Refuge System Headquarters Employees 2013 vs. 2025

	2013 FTE	2025 FTE	% Change
Headquarters	111	159	43%

Figure 1: Workforce Trends: Field, HQ, and RO



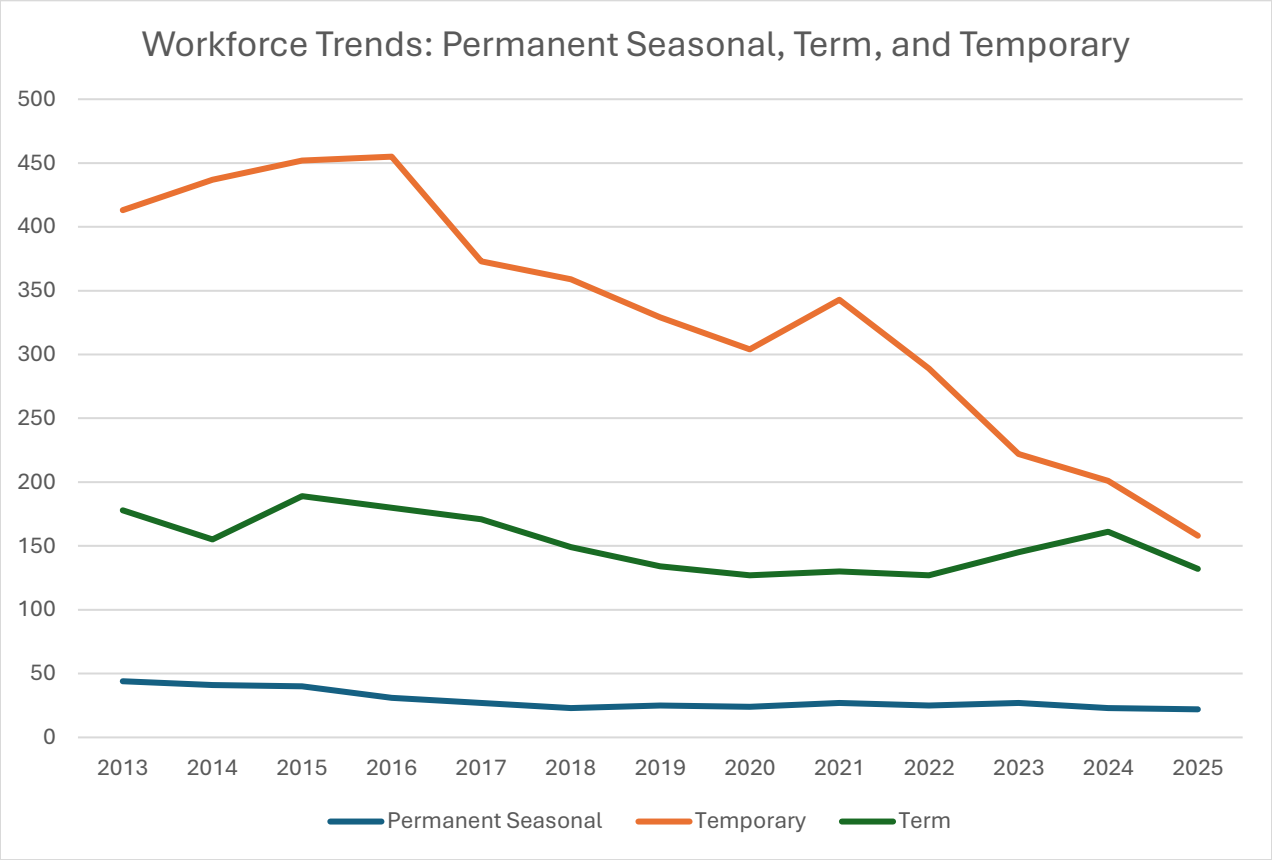
The following footnotes apply to Figure 1, Table 4, Table 5, and Table 6

1. Excludes fire and law enforcement personnel.
2. Includes only permanent, year-round employees; permanent seasonal, temporary, and term employment categories are analyzed separately.
3. Includes employees under all pay plans.
4. RO, Field, and HQ category determined from employee's organization code's assigned physical address in the Service's Corporate Master Table (CMT).
5. Small increases in 2019-2020 of Headquarters and Regional Office Personnel are attributable to the re-alignment of some engineer and architect staff from the legacy Budget and Administration organization to NWRS.

Regional office staffing increased by 9%, while Headquarters staffing increased by 43% during the same period. The 25% reduction in field staff has directly affected conservation delivery, leaving fewer employees responsible for managed lands. Disproportionate decreases across these groups are important to note.

Permanent seasonal, temporary, and term appointments can provide managers with flexibility to meet needs that do not require year-round staffing. These appointment types also represent cost savings relative to permanent full-time positions. However, overall utilization of these authorities has declined, with the greatest reduction occurring in temporary employees (see Figure 2).

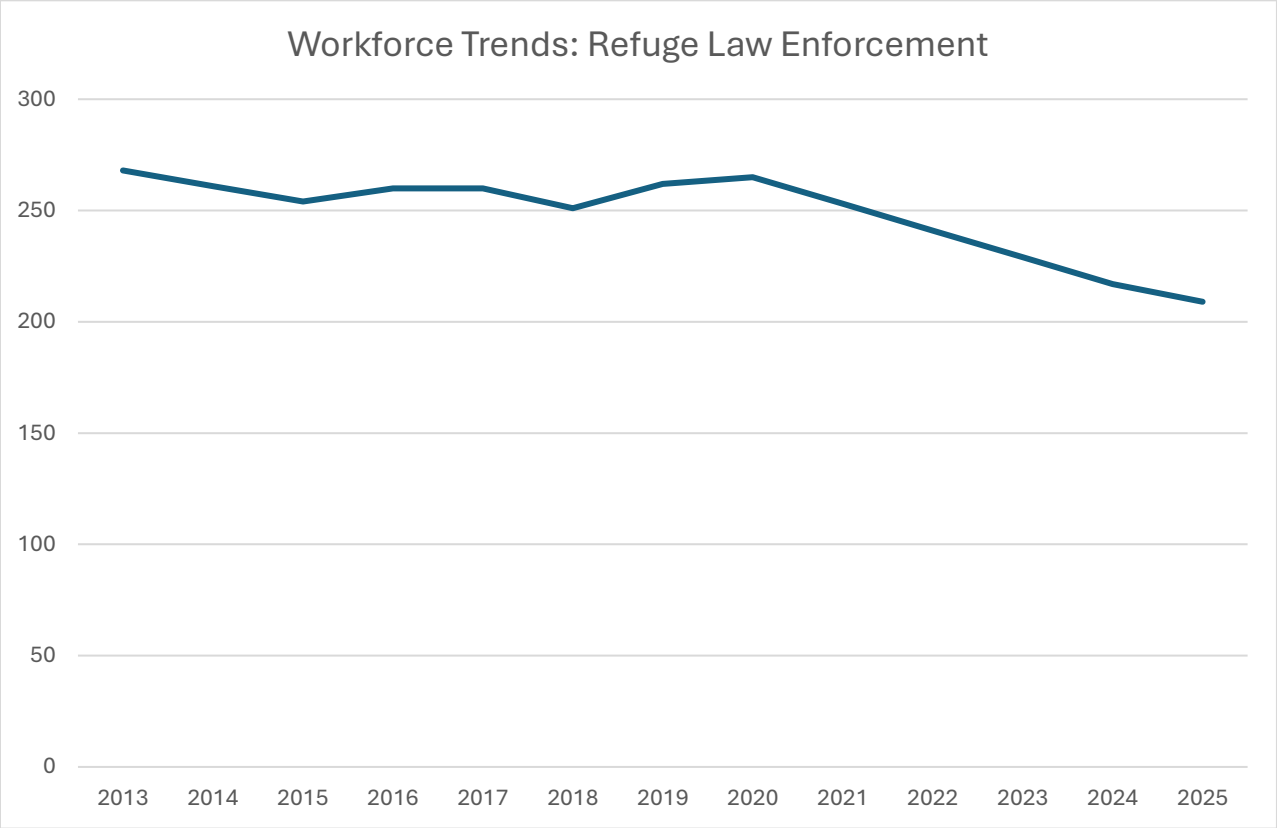
Figure 2: Workforce Trends: Permanent Seasonal, Term, and Temporary



1. Excludes fire and law enforcement personnel.
2. Data reflect Pay Period 16 for each year and represent a snapshot of the summer months when most seasonal employees are onboard; therefore, figures do not capture all seasonal employees who may have been employed each year.

Refuge Law Enforcement staff are responsible for protecting natural resources and ensuring public safety across the National Wildlife Refuge System. Between 2013 and 2025, Refuge Law Enforcement staffing declined by approximately 22% (see Figure 3).

Figure 3: Workforce Trends: Refuge Law Enforcement



1. Temporary, term, and seasonal personnel are not widely utilized within refuge law enforcement and are not expected to materially affect the overall findings (>1%) and are included here.

Non-law enforcement employees within the Refuge System generally fall under two primary pay plans: the General Schedule (GS) and the Federal Wage System (FWS). Both pay plans include grades ranging from 1 to 15. The distribution of grades for employees under each system is provided in Tables 7 and 8.

Table 7: General Schedule (GS) Distribution by Grade

Grade	2013	2025	Percent Change
02	3	1	-67%
03	7	0	-100%
04	39	15	-62%
05	64	35	-45%

06	55	26	-53%
07	202	140	-31%
08	11	9	-18%
09	334	271	-19%
10	1	2	100%
11	485	439	-9%
12	571	494	-13%
13	378	347	-8%
14	136	139	2%
15	22	17	-23%

1. Includes only permanent full-time GS employees in field, headquarters, and regional offices.
2. Excludes fire and law enforcement personnel.

Table 8: Federal Wage System (FWS) Distribution by Grade

Grade	2013	2025	Percent Change
02	2	0	-100%
03	1	1	0%
04	1	2	100%
05	8	7	-13%
06	17	9	-47%
07	32	23	-28%
08	162	167	3%
09	91	71	-22%
10	139	91	-35%
11	5	2	-60%

1. Includes only permanent, full-time employees in the WG, WL, and WS pay plans.

2. WL and WS employees constitute less than 3% of the total and typically serve in working leader or working supervisory roles; therefore, they are included in the totals presented.
3. Excludes fire and law enforcement personnel.

Reductions in General Schedule positions have occurred across all grade levels, though the most pronounced impacts are seen in the lower grades (GS-04 to GS-09). While some of these positions exist in regional offices and Headquarters, nearly 90% of employees at these grades are field-based, demonstrating a significant loss of field-based capacity.

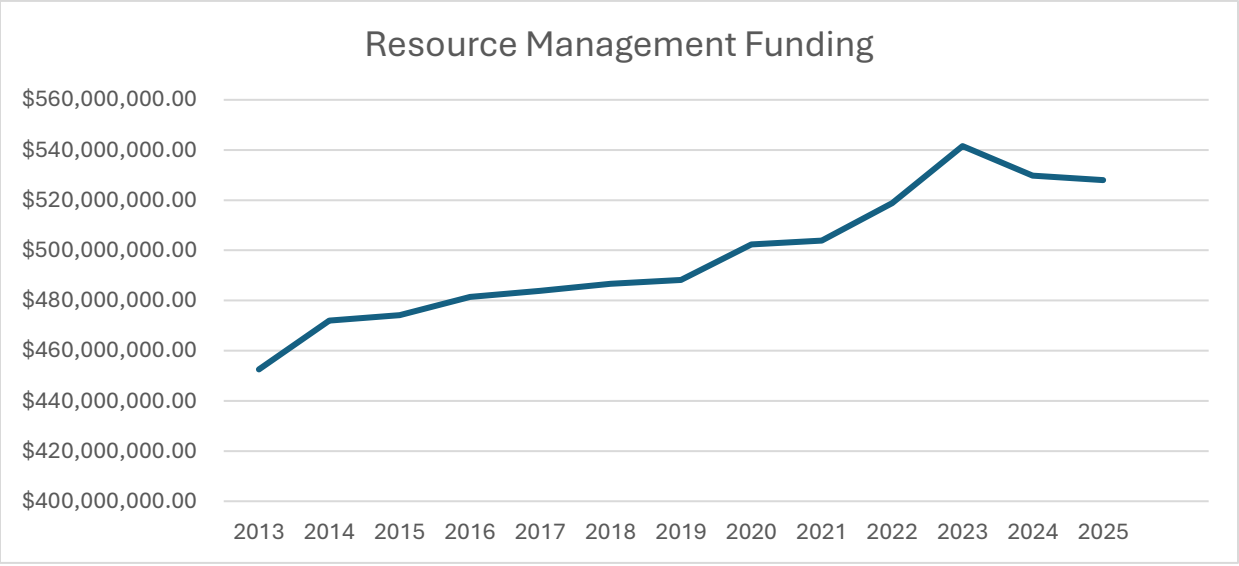
Federal Wage System employees represent the maintenance professionals of the Refuge System. This workforce has declined by approximately 19%. Most maintenance employees are graded at Wage Grade (WG)-08, WG-09, and WG-10, with WG-10 representing journeyman-level capability. No employees are graded above WG-11 within the Service. The Federal Wage System also includes Wage Leader (WL) and Wage Supervisor (WS) positions, though these are used infrequently. Most WG employees report to refuge managers or deputy refuge managers within the GS pay plan.

The Means That Sustain Us: Evaluating Refuge Funding Realities

Resource Management Funding

The primary source of funding for the Refuge System is Resource Management funding, which supports wildlife and habitat management, refuge maintenance, visitor services, law enforcement, conservation planning, and deferred maintenance. Although Resource Management funding has generally increased between FY 2013 and FY 2026, (Figure 4) inflation of approximately 43% over the same period has effectively reduced the Service's buying power. All financial data presented in this section were retrieved from the Financial Business Management System (FBMS).

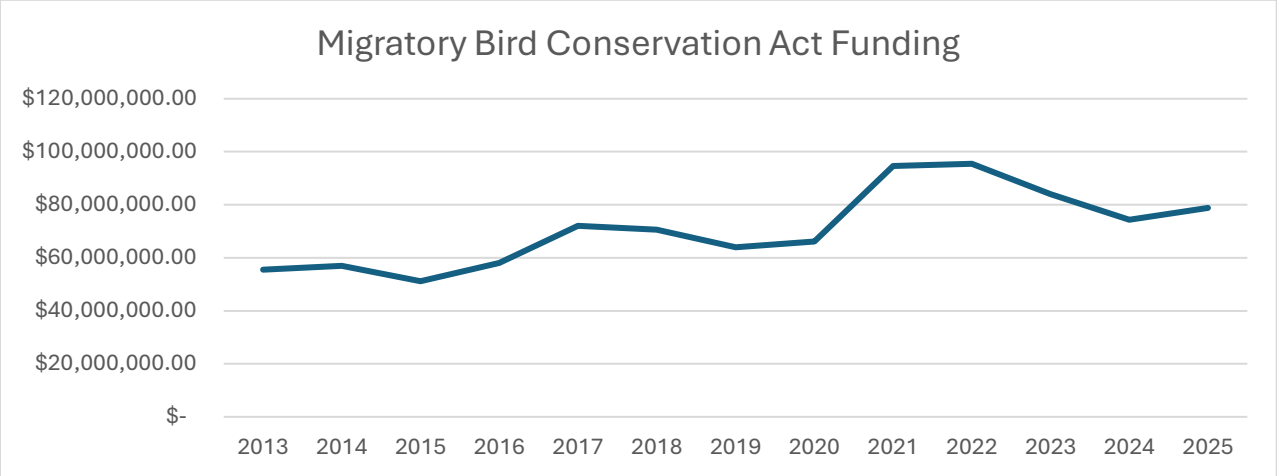
Figure 4: Resource Management Funding Trends Over Time



Migratory Bird Conservation Act

The Migratory Bird Conservation Fund (Figure 5) is supported by several revenue sources, with the two most significant being the sale of the Migratory Bird Hunting and Conservation Stamp (Federal Duck Stamp) and import duties collected on arms and ammunition (via the Pittman-Robertson Wildlife Restoration Act of 1937). These funds are used primarily to acquire lands or conservation easements that sustain migratory bird populations, while also establishing or enhancing many of the public destinations enjoyed today for waterfowl hunting and bird watching.

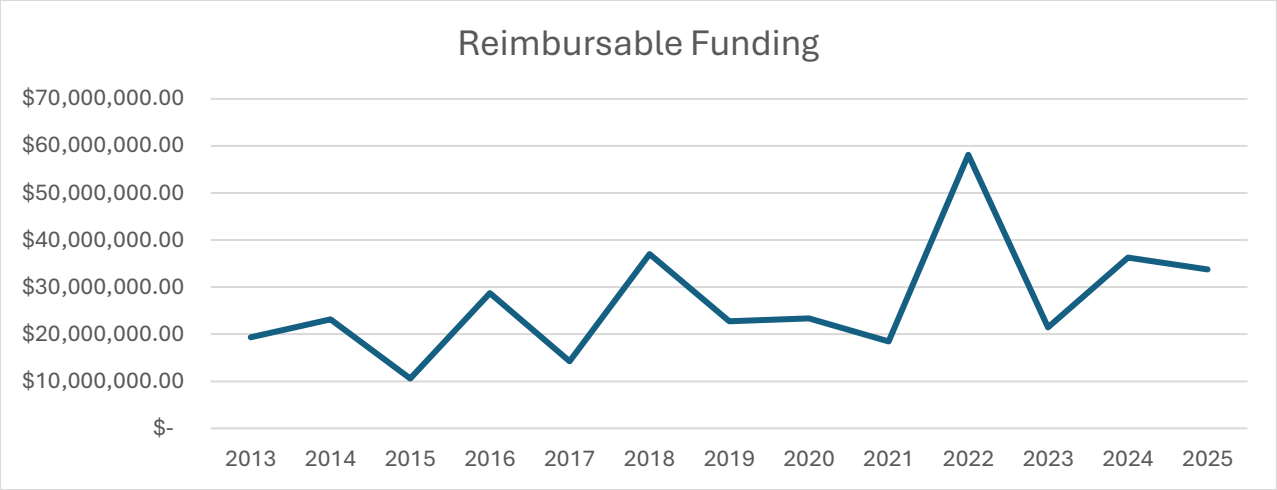
Figure 5: Migratory Bird Conservation Act Funding Over Time



Reimbursable Funding

Reimbursable agreements are a tool that allows the Refuge System to partner with other federal agencies, state and local governments, tribes and non-governmental organizations. Some examples of reimbursable agreements include agreements with the United States Department of War (DOW) for Wildland Fire coordination, United States Department of Agriculture (USDA) for Farm Bill coordination, Federal Aviation Administration (FAA) for operations and maintenance of Midway Atoll, and SpaceX related to SpaceX's Boca Chica launch operations. Between 2013 and 2025, the Service collected nearly $397 million in reimbursable agreements. Reimbursable funding varies widely year over year (Figure 6).

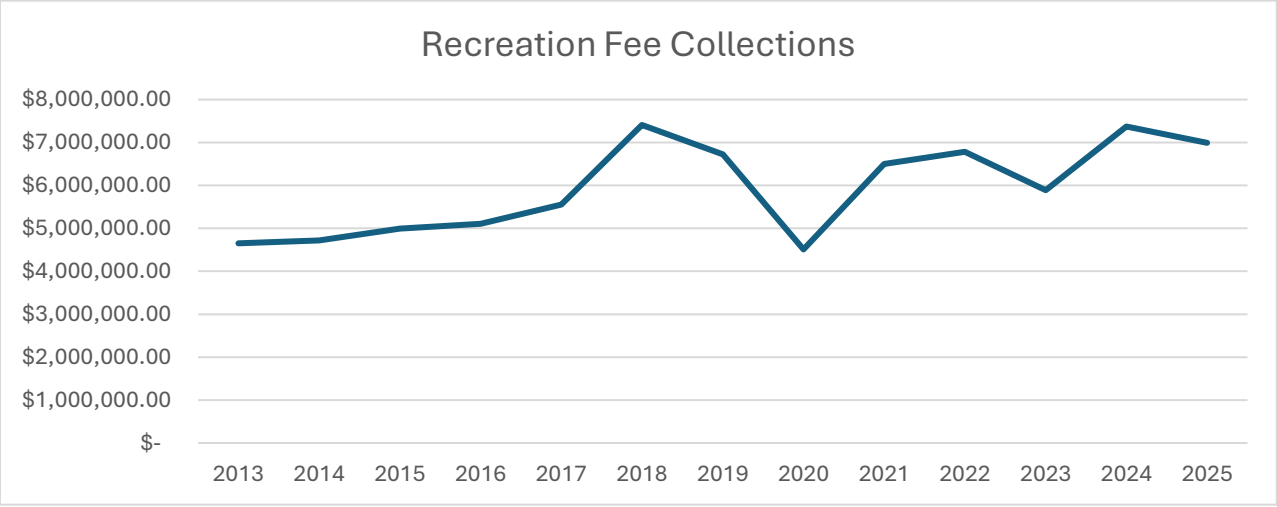
Figure 6: Reimbursable Funding Over Time



Recreation Fees

The Service is authorized to collect recreation fees under the Federal Lands Recreation Enhancement Act, which allows authorized refuges to retain and reinvest these funds. Recreation fee collections support improvements to visitor facilities, enhancements to interpretive and educational services, and the management of lands that experience increased visitation. Under this authority, 100% of collected fees are retained by the Service, and 80% is allocated directly to the site where the fees were collected to support operational needs, maintain public access, and provide related visitor services.

Figure 7: Recreational Fee Collection Over Time



Other Funding

The System also receives funding from a variety of additional sources. These include temporary authorities, such as emergency supplemental appropriations, as well as permanent funding authorities like construction, quarters, federal highways, and land acquisition programs. In 2025,

these other funding sources totaled more than $750 million, with emergency supplemental funding representing the largest portion at over $470 million.

Where Conservation Meets Capability

Maintenance professionals are essential to the National Wildlife Refuge System. They keep facilities safe, maintain public access, preserve critical infrastructure, and perform the daily work that sustains habitat and ensures that refuges can fulfill their statutory purposes. Strengthening this workforce is not simply a personnel matter; it is a conservation matter. Feedback from all stakeholders, including staff, partners, and local communities, reflects a shared awareness of the strain posed by aging infrastructure, with many noting the increasing number of facilities that are dilapidated or closed. Infrastructure that fails cannot support habitat, and deferred maintenance that accumulates over time ultimately constrains mission delivery. Staff repeatedly noted that the absence of a coherent approach to developing and retaining maintenance professionals has left refuges vulnerable to infrastructure decline and reduced their ability to meet statutory obligations.

A deeper examination of maintenance workforce needs, classification practices, advancement pathways, and the overall capacity of the WG, WL, and WS series is needed to support long-term infrastructure and habitat stewardship. Such an analysis would place particular emphasis on consistency in classification and grading across regions, recognizing that inconsistent practices affect morale and Systemwide capability.

Previously, the Infrastructure Management Division developed a proposal for a new Public Lands Maintenance Professional job series. The proposal contained all information required by the Office of Personnel Management to initiate classification of a new series. The broad duties required of maintenance professionals on refuge lands warrant a job series tailored to the work itself. Although some overlap with existing series is expected, no single current series fully reflects the range of responsibilities required of these positions.

As part of the broader workforce analysis recommended here, the proposal merits renewed examination and consideration for advancement. Its components, including career ladder structures that support skill development and provide clearer promotion pathways, remain directly relevant to current workforce needs. The proposal also outlined the establishment of a registered apprenticeship program with the Department of Labor. Completion of the 3,000-hour apprenticeship would qualify participants for placement into positions at the WG- 08 level or higher, creating a structured pipeline for developing future maintenance professionals. Given the scope of challenges facing the System, failure to pursue meaningful workforce reforms risks further eroding the capacity required to maintain essential infrastructure and support the conservation mission.

Including Maintenance Expertise in Workforce Decisions

To ensure this recommendation succeeds, maintenance professionals must have a meaningful voice in workforce planning. Each region and Headquarters employ a heavy equipment

coordinator; a position originally designed as a developmental opportunity for field-based maintenance employees to grow into equipment and facilities management. Staff serving in this role have the on-the-ground experience needed to effectively advocate for the maintenance workforce. Heavy equipment coordinators must be included in workforce planning discussions that impact employees in the WG, WL, and WS series. Despite the intention behind these positions, their expertise has not always been fully utilized in shaping decisions that directly affect maintenance operations.

Recommendation: Improve Maintenance Professional workforce practices to ensure consistent classification, clear advancement pathways supported by a registered apprenticeship program, and meaningful inclusion of heavy equipment coordinators in maintenance planning.

Keeping Support Close to the Work

For more than 100 years, the National Wildlife Refuge System has relied on the people who work on the ground every day to fulfill its mission. The strength of the System has always come from positions rooted in the field, and administrative staff are no exception. These employees develop a deep understanding of the refuge landscape through daily experience, maintain an intimate awareness of local needs, and carry responsibilities that directly support mission delivery. Despite this, their role has often been viewed as secondary rather than fundamental to effective refuge operations.

Administrative staff perform a wide range of duties, including budget, travel coordination, timekeeping, human resources tasks, acquisition, Freedom of Information Act (FOIA) records management, general office operations, and field support. Whether stationed at a refuge, a complex office, or another location, these employees provide essential support that enables field personnel to focus on biological, maintenance, visitor services, and conservation delivery responsibilities. Their work forms a critical part of the operational foundation of the Refuge System and helps ensure consistency, compliance, and efficiency nationwide.

As with many other mission-critical roles examined in this review, administrative capacity has decreased across the System over the years. When these positions are lost or left unfilled, the administrative work does not disappear. Instead, it shifts to other employees, leaving them with less time for the conservation and public-facing responsibilities central to the System's mission. Although administrative processes, tools, and technologies have evolved significantly over the past several decades, the need for dedicated administrative professionals remains.

Feedback gathered through this review made clear that a systemwide assessment of existing administrative capacity is necessary. Staff across regions emphasized that strengthening administrative support would reduce the burden on field personnel, improve operational consistency, and allow the Refuge System to deliver conservation more effectively. Such an assessment would help ensure that administrative staff are appropriately valued for the essential role they play in supporting the mission of the National Wildlife Refuge System.

Recommendation: Direct regional leadership to provide sufficient administrative support and develop a position description that meets daily refuge needs. Employ the use of technology and Super Intelligence (SI) to improve efficiency.

Aligning Leadership Structure with Mission

The National Wildlife Refuge System currently operates with a span of control that averages one supervisor for every 2.9 employees (Table 9). The Service has identified a more efficient and balanced target of one supervisor for every eight employees. These figures do not account for vacant positions, which in many field stations would move closer to that target. The challenge is not too many refuge managers; there are too few staff in the field.

Table 9: Employee to Supervisor Ratios (X:1) Over Time

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
3.2	3.2	3.2	3.1	2.9	2.8	2.9	2.9	3.0	3.0	2.9	2.9	2.9

1. Ratios presented above do not include vacancies
2. Excludes fire and law enforcement personnel
3. Includes all employee types (permanent, permanent seasonal, temporary, and term)

The solution is not a reduction in refuge managers or further complexing. Individual refuges face significant vacancies in administrative, refuge management, maintenance, and biological positions. When hiring is directed to these field-based roles first, the span of control at field stations improves naturally and sustainably. Empowering leaders in the field requires giving them the staff support they need, not redistributing their oversight upward. Support must flow towards the field, not away from it.

In many areas, nearly seven layers of management separate a refuge manager from the Regional Director. This structure slows decision making, restricts flexibility, and limits the space for innovation. As information moves upward, it becomes filtered and sometimes distorted, and decisions can take too long to return to the field. Leaders far removed from the daily realities of refuge operations can become disconnected from both the work and the workforce. The result is confusion, reduced accountability, and diminished efficiency. This multilayered hierarchy is not an accidental outcome; it is the result of choices that have progressively centralized authority while distancing decision-makers from the consequences of their decisions.

Reducing management layers at the regional office and Headquarters levels will improve oversight, governance, and the span of control. A reduction will redirect salary dollars to the positions that directly deliver the mission. Strengthening the field begins not by consolidating authority upward, but by placing people where the work is done and ensuring managers have a reasonable number of staff to lead. Refuge leadership must recognize that meaningful reform requires reducing their own structural footprint, not restructuring the field to absorb the effects of top-heavy management.

The employee to supervisor ratio for the system has been between 2.8:1 and 3.2:1 in the time between 2013 and 2025. Implementation of the foregoing is expected to bring the span of control closer to the target of one supervisor for every eight employees. Reaching this goal will depend not on additional reorganizations from the top, but on a commitment to redirect resources toward field staffing, streamline upper-level layers, and prioritize operational effectiveness over bureaucratic expansion.

Recommendation: Reduce headquarters and regional office staffing and reallocate positions to refuge operations, prioritizing the people needed to manage habitat, maintain facilities, support public access and protect resources.

Placing Practical Expertise at the Center

The Wildlife Refuge Management (GS 0485) job series is used exclusively by the National Wildlife Refuge System. Employees in this series serve as wildlife refuge specialists or managers, with field positions typically graded from GS-5 through GS-14. These roles are foundational to refuge operations, requiring individuals to function as true generalists who can manage multiple program areas simultaneously. For example, at the GS 09 level, the position description identifies five major duty areas, each weighted equally:

- Wildlife Biology, Ecology, and Habitat Management (20%)
- Natural Resources Program Management (20%)
- Visitor Services (20%)
- Business Administration and Management (20%)
- Facilities and Equipment Management (20%)

These broad responsibilities demonstrate the unique versatility required of the series. Despite this, permanent full-time staffing in the GS 0485 series has declined by 27% between July 2013 and July 2025. In stark contrast, staffing in the GS 0025 series, which is comprised of Park Rangers, decreased by only 17% demonstrating wildlife education as a priority whereas core mission and purpose lie elsewhere. While as part of visitor services, Park Rangers provide value, the importance of Wildlife Refuge Specialists and Wildlife Refuge Managers cannot be overstated. In a hiring environment where choices must be strategic, greater emphasis should be placed on selecting candidates with strong generalist skills rather than narrow specialization. The long-term decline in this workforce has created gaps noted by the public and partners that directly affect field operations and the System's ability to meet its mission.

The current basic requirements for this job series are:

A) *Degree: zoology, wildlife management, or an appropriate field of biology that included at least 9 semester hours in zoology; 6 semester hours in such wildlife courses as mammalogy, ornithology, animal ecology, or wildlife management; and 3 semester hours in botany, and 3 semester hours in conservation biology.*

or

B) Combination of education and experience: courses equivalent to a major in one of the fields described in A above that included at least 9 semester hours in zoology; 6 semester hours in such wildlife courses as mammalogy, ornithology, animal ecology, or wildlife management; and 3 semester hours in botany, and 3 semester hours in conservation biology, plus appropriate experience or additional education.

Many personnel, including maintenance professionals, administrative staff, and certain biologists, do not meet the education requirements necessary to qualify for wildlife refuge manager or project leader positions. These employees often bring local knowledge, established relationships, strong leadership skills, and a proven ability to manage refuge operations. They regularly demonstrate sound judgment, deep familiarity with refuge lands, and the ability to navigate complex community, partner, and stakeholder environments. Yet they are limited by degree-based qualification standards that do not reflect the full range of skills necessary for effective leadership of a refuge.

Experience often proves more valuable than formal education. Strict educational requirements have prevented capable internal leaders from advancing, weakening local management and strategic continuity. A maintenance professional or administrative employee with decades of on-the-ground experience may have a deep understanding of the operational, ecological, and community issues that a refuge manager or project leader encounters each day. Leadership skills are frequently developed through field assignments, collateral duties, and high-stakes, real-world problem-solving. Many of these employees have long-standing relationships with communities, tribes, partners, and state agencies, and they possess a working familiarity with the land and its needs that cannot be replicated through coursework.

Under the current structure, many internal candidates who demonstrate exceptional leadership, operational insight, and commitment to the mission are unable to compete in the hiring process for refuge manager positions because they lack specific academic credentials. Adjusting the qualification standards to place education, experience, and demonstrated leadership on more equal footing acknowledges the diverse pathways through which effective refuge leaders develop. It also strengthens succession planning, improves retention, and supports the long-term stability of field leadership.

The proposed revision to basic requirements is as follows:

A) Degree: biological sciences, agriculture, natural resource management, chemistry, or related disciplines appropriate to the position.

or

B) Combination of education and experience: Courses equivalent to a major, as shown in A above, plus appropriate experience or additional education.

or

C) *Experience: Four years of experience that demonstrated that the applicant acquired knowledge and understanding of one or more of the biological sciences, agriculture, natural resource management, or related disciplines equivalent to that which would have been acquired through completion of a 4-year course of study as described in A above.*

Adjusting these requirements would allow experienced leaders and personnel with significant on-the-ground expertise to advance into wildlife refuge manager or project leader positions. Implementation will require coordination with the Department of the Interior's Office of Human Capital and the Office of Personnel Management.

Recommendation: Prioritize generalist refuge positions and give greater weight to demonstrated merit, practical skills and readiness for greater responsibility when selecting refuge specialists, managers and project leaders.

Knowing the Work Before Us: Assessing Maintenance Needs

The National Wildlife Refuge System manages 41,670 assets across a wide range of types. Housing, offices, roads, bridges, trails, levees, dams, canals, water control structures, and many other facilities support the System's mission. The replacement value of these assets exceeds $55 billion. Of the 41,670 assets, 21,048 are mission critical, representing approximately 50% of the total.

Deferred Maintenance Assessment

A Comprehensive Condition Assessment (CCA) is the primary method used to evaluate deferred maintenance needs across the Refuge System. This assessment is a detailed inspection conducted approximately every five years, as required by Department of Interior policy. CCAs document current asset conditions, validate inventory data, and identify and estimate the costs of necessary lifecycle investments. Regional Facility Management Coordinators (FMCs) perform these assessments by traveling to each station and inspecting every asset. During a CCA, the FMC documents the asset's condition, identifies deficiencies, captures supporting photographs, and evaluates whether an asset should be considered for disposal. Findings are recorded in the Service Application for Material Inspections (SAMI) and then transferred to the Service Asset and Maintenance Management System (SAMMS), where cost estimates are generated using commercial construction assumptions and Davis Bacon wage requirements. At present, only 75.3% of mission critical assets valued at more than $100,000 have been inspected within the required five-year period, leaving a substantial portion overdue for assessment. This gap introduces uncertainty into national planning efforts and increases the likelihood that investment decisions rely on outdated or incomplete information.

FMCs serve in a role that demands technical precision similar to that expected of cost estimators in the private sector. They must complete National Fire Protection Association Life Safety Code

training, the American Home Inspection Training Home Inspection MasterCourse, and RSMeans cost estimating training. New coordinators are assigned mentors outside their region for their first year, followed by an annual requirement of forty hours of continuous learning. However, continuous learning requirements are defined only in broad categories, and there is no structured curriculum that prioritizes the ongoing advanced construction cost estimating skills required to produce consistently accurate assessments at scale. In private-sector construction and facilities management, cost estimators undergo regular, specialized training to maintain the accuracy and reliability of their estimates; the Refuge System relies on estimates of similar complexity without providing equivalent ongoing development.

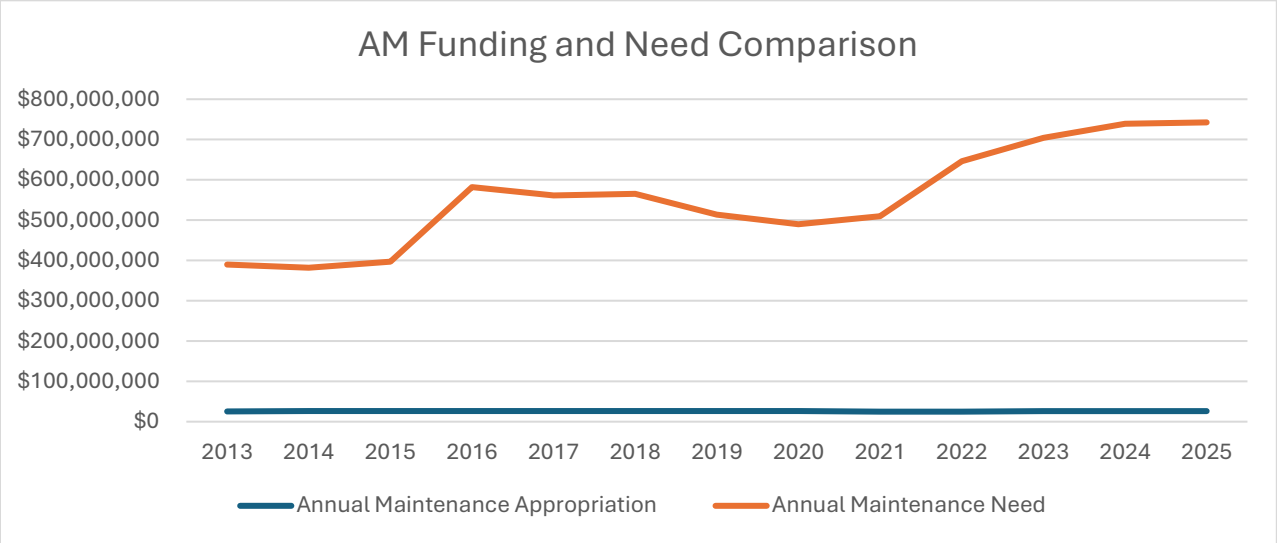
Taken together, these conditions point to a clear need for improvement. Because a significant percentage of mission critical assets have not been assessed within the required five-year window, and because the current system does not provide FMCs with the sustained, specialized construction cost estimating training commonly expected in the private sector, the accuracy of current assessments is inherently limited. The assessment system cannot fully support national and regional decision making until inspection coverage is complete and training requirements are strengthened to match the technical demands of the work.

Annual and Deferred Maintenance Funding and Prioritization

Managing such a large asset portfolio requires significant investment in both funding and workforce. Maintenance and improvement activities are supported through three primary appropriations. Annual Maintenance appropriations fund preventative and routine work that keeps assets in acceptable operating condition. Deferred Maintenance appropriations support projects that have been delayed more than one year due to insufficient Annual Maintenance funding. Capital Improvement appropriations provide for new construction and modernization.

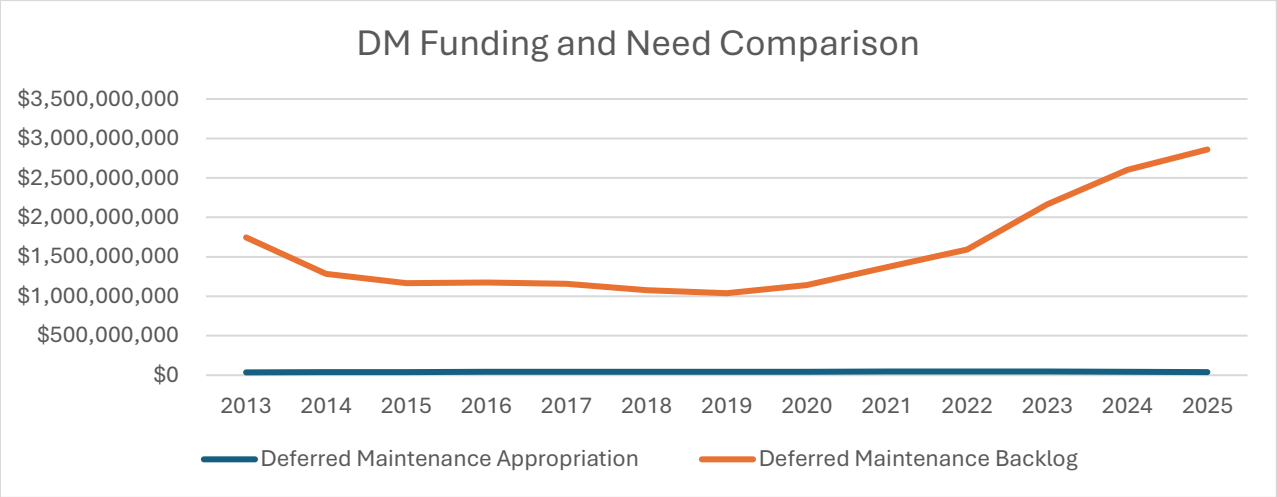
Annual Maintenance needs continue to grow as assets age and as the cost of labor and materials increases. Annual Maintenance Appropriations are compared with assessed needs in Figure 8.

Figure 8: Comparison of Annual Maintenance (AM) Funding and Need



As the gap between Annual Maintenance needs and available funding widens, unmet needs accumulate and become part of the deferred maintenance backlog. A comparison of Deferred Maintenance appropriations with total Deferred Maintenance need is depicted in Figure 9.

Figure 9: Comparison of Deferred Maintenance (DM) Funding and Need



Maintenance funding is not limited to Annual Maintenance or Deferred Maintenance. In some years, additional sources such as disaster supplemental funding or Great American Outdoors Act (GAOA) funding become available, with the National Parks and Public Land Legacy Restoration Fund (GAOA-LRF) making a significant impact on deferred maintenance by enabling progress on high-priority projects that would otherwise remain unfunded. The Service has allocated $486.8 million of GAOA-LRF funding, and the deferred maintenance backlog has been reduced by $450.3 million as a result.

The following projects demonstrate the tremendous impact of the millions of dollars invested through the GAOA-LRF, significantly improving access and strengthening recreational opportunities across the National Wildlife Refuge System. At Dale Bumpers White River National Wildlife Refuge in Arkansas, more than 40 miles of roads and parking areas were rehabilitated, and multiple boat launches were restored to support waterfowl-related recreation. At Seedskadee National Wildlife Refuge in Wyoming, GAOA-LRF funding enabled the full rehabilitation of the auto tour route, improving public access and enhancing the visitor experience. San Luis National Wildlife Refuge in California installed new hunting blinds and upgraded water control infrastructure, delivering better habitat conditions for hundreds of thousands of waterfowl. These efforts represent only a fraction of the many projects completed in recent years, all made possible through the transformative investment of the GAOA-LRF.

The National Wildlife Refuge System maintains a Nationally Significant Project List to identify and propose major projects for alternative funding sources when available. A 2019 briefing paper provides an early prioritization methodology from when the Nationally Significant Project List was first developed. Many of the criteria support recreational access and water resource infrastructure. Other criteria provide priority investment in Urban Refuges and visitor experience. At a time when resources are limited, we must ensure that the greatest funding is provided to projects that reduce the deferred maintenance backlog and support the core mission of the Service. Revision of criteria is essential to prioritize the use of internal capacity in the form of Maintenance Action Teams.

Five-Year Plans (FYPs)

The Department of the Interior requires bureaus to develop a five-year lifecycle investment plan. These plans are prepared through an evaluation of projects that support mission needs and Administration priorities. Projects included in the five-year plan are high-priority efforts on mission critical assets and are ranked using Department policy criteria, including the Asset Priority Index and the Facility Condition Index. The Asset Priority Index reflects the qualitative importance of an asset and whether an alternative exists to meet the same need. The Facility Condition Index is calculated by dividing cumulative deferred maintenance by the current replacement value of the asset. A summary of the facility condition index for Refuge System assets is provided in Table 10.

Table 10: Condition of Refuge System Assets (Facility Condition Index)

Asset Category	Number of Assets
Mission Critical	
Acceptable Condition	17,976
Unacceptable Condition	3,072
Mission Dependent, Not Critical	
Acceptable Condition	12,998
Unacceptable Condition	2,050

Not Mission Dependent	
Acceptable Condition	4,783
Unacceptable Condition	791

1. Data retrieved from Service Asset and Maintenance Management System (SAMMS)

The five-year plans are rolling and updated annually. The process begins with a call memorandum issued by the Chief of the National Wildlife Refuge System, typically in November or December, requesting regional submissions for the national plan. The call memo includes emphasis areas that guide the allocation of deferred maintenance funding. The 2026 call memo identified five emphasis areas, including one specific to the Refuge System and one to the Hatchery System. Emphasis Area 1 requires 40% of the plan to support outdoor recreation, 3% for demolition, inclusion of at least one bridge project, planning for dam safety, and 30% for general critical repairs. Emphasis Area 2 applies to the Hatchery System. Emphasis Area 3 requires identification of three projects per plan year per region that can be completed with partner organizations. Emphasis Area 4 requires a minimum of $100,000 in work completed through Maintenance Action Teams. Emphasis Area 5 requires each project to align with one of four priorities: life safety, recreational access, demolition, or partnerships.

Reducing the deferred maintenance backlog requires directing funding toward activities that permanently remove liabilities from the System and provide the greatest value for each dollar spent. An increased emphasis on demolition and expanded use of Maintenance Action Teams would directly support this goal. When an asset that is no longer needed is demolished, its associated deferred maintenance is removed from the backlog, and future costs are avoided. At present, only 3% of the five-year plan is required to be allocated to demolition, limiting the Service's ability to target unrepairable or underutilized assets.

Maintenance Action Teams offer cost-effective capacity for addressing annual maintenance, deferred maintenance, and demolition work. However, the current call memo requires only a minimum of $100,000 per region to be directed toward Maintenance Action Teams. Increasing this requirement would allow their proven efficiency to address a greater share of the backlog and strengthen field-level capability. Additional discussion of Maintenance Action Teams is provided in the following section.

In addition to reducing liabilities, the prioritization framework for deferred maintenance funding should be adjusted to better reflect priorities. Emphasis Area 1 requires 40% of the five-year plan to support outdoor recreation. As the Service works to expand hunting, fishing, and trapping opportunities across the System, this Emphasis Area can be further refined to support hunting, fishing, and trapping as priority outdoor recreational uses and habitat management tools. More precise alignment would ensure that limited funding supports both the statutory mission and the operational realities of growing public use.

Alternative Energy Systems

As the Service evaluates long-term asset needs and works to reduce the deferred maintenance backlog, it is also important to assess new construction and modernization projects for their long-term viability. Alternative energy systems are a key example. Some alternative energy systems require specialized maintenance, extensive annual service contracts, and technical expertise that is often unavailable at the field level. Staff recommend adding more rigorous criteria to the decision-making process so that installations proceed only when they provide a clear benefit relative to their cost and long-term maintenance demands. Without a more disciplined and realistic approach, these systems risk becoming additional liabilities rather than assets that support the Refuge System's mission. It has become clear through staff and conservation partner feedback that the Service must only construct and replace buildings where reliable and cost-effective energy sources are available.

Recommendation: To improve the accuracy of deferred maintenance assessments and the deferred maintenance backlog estimate, increase the inspection rate of mission critical assets from 75.3% to 100% and define a continuous learning curriculum in construction cost estimating for Facility Management Coordinators.

Recommendation: Refine the Nationally Significant Project List criteria, along with the annual call memo for five-year deferred maintenance plans, to ensure that priority is given to demolition projects, Maintenance Action Team efforts, and other work that aligns with refuge purposes and advances the Service mission.

Building Capacity Through Hands-On Maintenance Teams

Maintenance Action Teams are groups of Service employees brought together to complete short-term horizontal construction, demolition, or habitat restoration projects. These teams generally include experienced journeyman-level professionals working alongside entry-level staff. Training is a central component of Maintenance Action Teams, allowing maintenance professionals to learn new skills such as operating unfamiliar equipment or gaining exposure to new trade practices and operating in various environments and site conditions. Skills developed on these projects are carried back to the home station, increasing capability and strengthening daily operations.

Maintenance Action Team projects often result in substantial cost savings compared to contracted work. The Service can avoid certain contractor costs by using Maintenance Action Teams. Comparisons should account for employee compensation, travel, equipment, materials and other project costs. On average, work completed by Maintenance Action Teams reflects an estimated 20% to 50% savings compared to similar projects conducted through the federal contracting process. Two examples of Maintenance Action Teams providing significant savings to the American taxpayer were located at San Bernadino NWR in Arizona and Tamarac NWR in Minnesota. The San Bernadino NWR project involved the construction of an equipment shade structure. Commercial construction was estimated to cost $188,424, while the Maintenance Action Team was able to complete the project for $117,641, resulting in savings to the taxpayer

of $70,783. The Tamarc NWR involved the rehabilitation of the refuge's Blackbird Wildlife Drive. Commercial construction was estimated at $81,700. The project was completed for $28,187, resulting in savings to the taxpayer of $53,513.

Maintenance Action Teams have demonstrated consistent success. Expanding their use would provide multiple benefits across the Refuge System. Employees gain hands-on training that may not be available through other means, and the skills they develop improve capability at their home stations. Directing additional deferred maintenance funding to these teams represents a practical way to accomplish more with limited resources, reduce reliance on contracted work, and slow the growth of the deferred maintenance backlog. The cost efficiency of these teams enables a greater volume of work to be completed for the same investment, strengthening conservation delivery, supporting employee development, and reducing overall maintenance costs.

Recommendation: Use shared crews to complete annual and deferred maintenance more efficiently.

Positioning People and Equipment Where They Are Needed Most

Equipment and maintenance professionals within the Service are typically assigned to individual refuges or refuge complexes. Since 2015, the Service has made significant strides in improving equipment sharing across the Service. As previously discussed, Maintenance Action Teams further allow for sharing of technical expertise nationwide.

The Refuge System operates a substantial fleet of heavy equipment, including road graders, transport trucks, and agricultural tractors. Regional and national heavy equipment coordinators manage this fleet, overseeing decisions related to retention, reassignment, disposal, purchase, rental, sharing, and leasing. The Service Manual at 322 FW 1 outlines responsibilities across organizational levels. Refuge managers and project leaders assist regional heavy equipment coordinators in equipment sharing. Although major improvements have been made since 2015, certain equipment remains consistently underutilized and in practice, heavy equipment managers lack full authority to direct the sale of underutilized equipment and limit the purchase of new equipment.

While maintenance professionals possess a wide range of skills, the Service employs relatively few specialists. Most refuge units require generalists capable of performing many different tasks, and licensed trade professionals such as electricians, heating and cooling technicians, carpenters, plumbers, and welders are limited in number. Licensure is generally not required for employment, and the licensed trade is often not a primary duty. This creates areas of limited internal capacity where specialized skills are needed to complete routine and deferred maintenance. Enhancing internal expertise in these specialized trades is a key factor in reducing the deferred maintenance backlog.

Regional maintenance core centers would be located at large complexes throughout each region and would serve as bases for both heavy equipment and specialized maintenance professionals. When identifying core center locations, consideration would be given to deferred maintenance needs, annual maintenance demands, complex size, and geographic coverage. The number and distribution of core centers within each region would be determined through additional analysis. Regional boundaries would not limit the use of equipment or personnel, allowing teams and equipment to support needs wherever they arise.

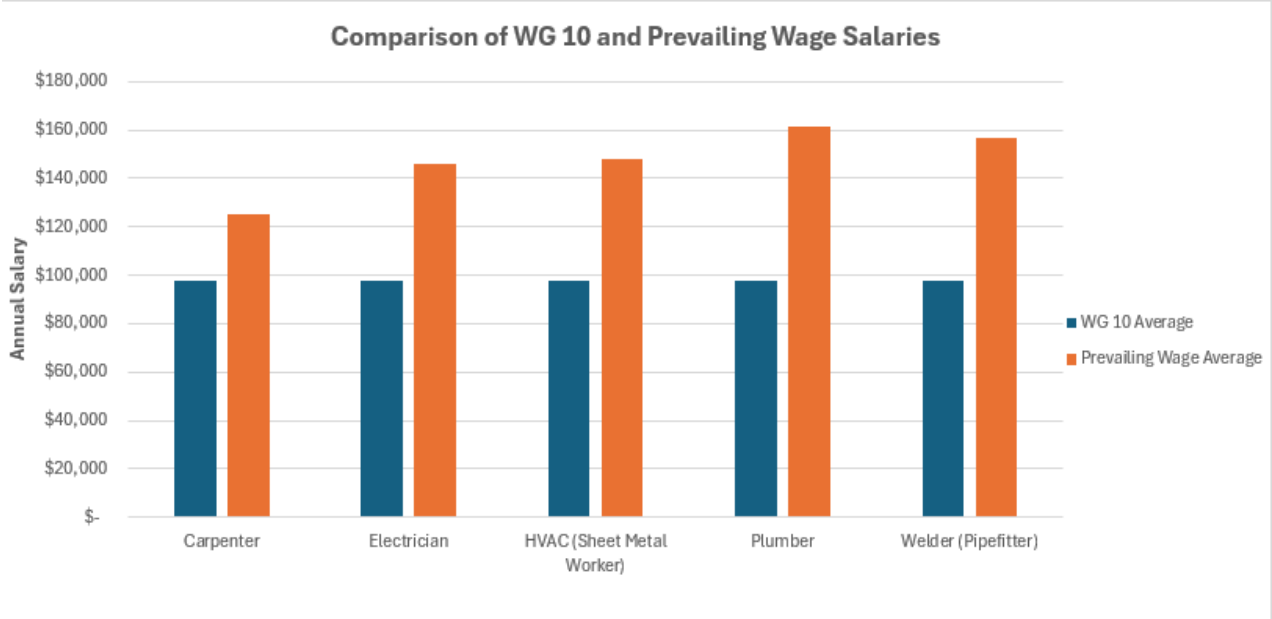
Equipment assigned to regional core centers could be used by the host station, but the fleet would be overseen by the regional heavy equipment coordinator. Large or high-cost equipment should be evaluated for relocation to core center facilities. This approach does not remove the equipment necessary for daily operations from individual refuge units; rather, it consolidates specialized and infrequently used equipment to maximize efficiency and availability.

The National Heavy Equipment and Maintenance Action Team coordinator, in coordination with regional coordinators, would complete the necessary analysis to determine core center placement and to coordinate both personnel and equipment assignments. Specialized personnel would focus on work that reduces deferred maintenance and supports specialized annual maintenance requirements. These specialized trade professionals would also participate in Maintenance Action Team projects and provide hands-on training for other employees. This training will strengthen individual capability related to specialty trades and provide a direct benefit to the home station when employees return with advanced skills.

Personnel assigned to core centers would include licensed professionals in the following trades: carpenter, electrician, heating and cooling technician, plumber, and welder. These positions would be filled at the WG-10 level, with one position in each trade assigned to each region. Position travel requirements would range from 50% to 75%. Term appointments may be used initially as a pilot to refine the approach.

The cost savings associated with maintaining these specialized capabilities internally compared to rates paid under Government contract are illustrated in Figure 10. The figure compares the average annual cost of a WG 10 employee with Davis-Bacon prevailing wage rates for comparable trade labor across the Service’s eight regional office locations. Internal capability shows an average savings approaching 50%.

Figure 10: Comparison of WG 10 and Prevailing Wage Salaries



1. WG 10 Average Salary reflects the average salary at step 3 across eight regional office locations, with an additional 30% for fringe benefits.
2. Prevailing Wage Average Salary represents the average prevailing wage, including fringe benefits, for each trade across the eight regional office locations. Data is sourced from Department of Labor Davis-Bacon wage determinations and assumes a building construction classification.
3. Annual salary assumes a full-time employee (FTE) working 2,080 hours per year.

Recommendation: Create core centers that position maintenance professionals and heavy equipment to serve multiple refuges.

Working With Others to Advance the Mission

The first element of the U.S. Fish and Wildlife Service's mission is "working with others." The National Wildlife Refuge System cannot meet its conservation responsibilities alone; partnerships serve as a critical force multiplier in advancing this mission. These partners include tribal organizations, state and provincial agencies, non-governmental organizations including Friends groups and youth corps networks, local governments, industry, groups, academic institutions, and private landowners through the Partners for Fish and Wildlife (PFW) Program.

The Service's partnerships with tribal nations are critical to conservation delivery. These relationships honor tribal authority, traditional ecological knowledge, and shared stewardship of fish, wildlife, plants, and cultural resources. Through cooperative agreements, habitat restoration, technical assistance, and trust responsibilities, the Service and tribal partners work together to conserve natural resources for future generations.

A variety of authorities, including the National Wildlife Refuge System Volunteer and Community Partnership Enhancement Act of 1998, authorize the Service to engage community

members through volunteer programs and Friends organizations. More than 180 Friends organizations exist today, representing 282 refuge units. The Service Manual (633 FW 1–4) defines Friends groups as organizations with 501(c)(3) status, a mission to support a specific refuge, and a signed Friends Partnership Agreement. National and regional coordinators for Friends and volunteers provide training, tools, best practices, and coordination to help these groups succeed.

Local volunteers remain essential to the daily work of the Refuge System. In FY 2024, more than 25,000 individuals contributed over one million hours of service (equivalent to 480 full-time employees). Their support spans habitat restoration, visitor services, biological monitoring, community programs, and other core conservation activities.

Nongovernmental organizations play a significant role in enabling the Refuge System to deliver its mission. Their contributions are widespread, often immeasurable, and essential. The Service recognizes and values these partners; any specific mention or omission in this document is not intended to elevate one organization over another.

The National Fish and Wildlife Foundation provides a clear example of partnership-driven force multiplication. Chartered by Congress in 1984, the foundation expands resources available for conservation. Over the past 20 years, the foundation has awarded more than $233 million in grants, matched by over $244 million in partner contributions, supporting more than 950 projects.

In a time of limited financial and workforce resources, the role of partnerships must continue to grow for the benefit of conservation delivery to the American people. Staff and partners told us the same story in different ways: the intent to partner is strong, but limited station capacity, unclear authorities, and uneven guidance slow progress. Managers lack the time to cultivate relationships and partner expectations can outpace available decision space.

Partners already provide substantial support, yet opportunities remain to further elevate their role. Closer collaboration with state fish and wildlife agencies, the Division of Partners and Intragovernmental Affairs and with Native American Liaisons can help identify and develop new partnership opportunities. Additional training, tools, and guidance for field staff can improve consistency in partnership development and broaden the range of collaborators able to support refuge operations. Integrating partners into long-range planning, workforce strategies, and community engagement efforts will help ensure partnership capacity aligns with conservation needs, particularly in areas affected by staffing and resource constraints. In this way, partnerships can continue to serve as a vital source of capacity and support for conservation delivery.

Partners for Fish and Wildlife

The Partners for Fish and Wildlife Program is the Service's primary tool for delivering voluntary habitat conservation on private lands. The program provides financial and technical assistance to landowners, tribes, corporations, schools, and nonprofit organizations that are committed to

improving wildlife habitat. Since it began in 1987, it has delivered strong conservation results and has become a powerful multiplier for the Service's mission across the country. Its leverage ratio, which brings in at least four partner dollars for every federal dollar invested, reflects both its effectiveness and the confidence it inspires. Feedback gathered during this review reinforced that support, with state and local agencies, private landowners, and Service staff consistently emphasizing the important role the program plays in the conservation community.

The PFW Program illustrates how structure influences outcomes. In regions where PFW sits within Refuges and is supervised by leaders who understand its work, the program benefits from clear authority, close alignment with field needs, and strong conservation delivery. In regions where PFW is placed within other programs or supervised alongside unrelated priorities, fragmentation slows decisions and reduces accountability.

Our review found that partnerships succeed where staff have the time, clarity, and decision space to build them. This requires consistent program placement, clearer expectations, and simple tools that help stations integrate partners into habitat work, planning, and public use without adding administrative burden.

Recommendation: Give refuge managers greater ability to strengthen existing relationships and develop new partnerships that expand conservation capacity.

Recommendation: To ensure consistency, accountability, and maximized mission delivery, the Partners for Fish and Wildlife Program must be housed within the same program nationwide with clear and well-defined lines of authority.

When Use Honors the Resource

The National Wildlife Refuge System has always recognized that stewardship requires both protection and thoughtful objective-driven management. Across many landscapes, active land management practices have long supported refuge purposes when carefully planned and applied in accordance with the mission. While conservation often calls for restraint, it also calls for deliberate action when the land and its wildlife benefit from it. In some places, ecological conditions respond best when management mimics the natural processes that once shaped the landscape. In others, the careful use of established tools can help sustain habitat structure, maintain ecological resilience, and support the species that depend on these areas.

Habitat management practices, when aligned with refuge purposes and supported by science, can contribute directly to the long-term health of the landscape. Practices such as targeted vegetation management, agriculture, selective removal of declining or overcrowded trees, or the strategic use of grazing or prescribed fire can help maintain habitat diversity, improve soil and watershed function, reduce hazardous fuel loads, and support species that rely on a range of habitat conditions. When applied intentionally, these approaches enhance conservation rather than detract from it. They also reflect long standing realities on many refuge landscapes, where inaction can allow conditions to degrade more quickly than thoughtful, science-based

intervention. Unfortunately, inconsistent policy guidance and overly restrictive interpretation have hindered the practical use of these tools where they are most needed.

Selective tree removal and rotational forest treatments according to accepted silvicultural techniques, for example, can help maintain a variety of age classes, structural conditions, and species composition that benefit wildlife. By addressing diseased or overmature trees and promoting natural regeneration, these treatments can enhance forest health and resilience while preserving cover, forage, and nesting habitat. Treating only a portion of a stand at a time ensures that the broader landscape remains intact and capable of supporting wildlife during recovery.

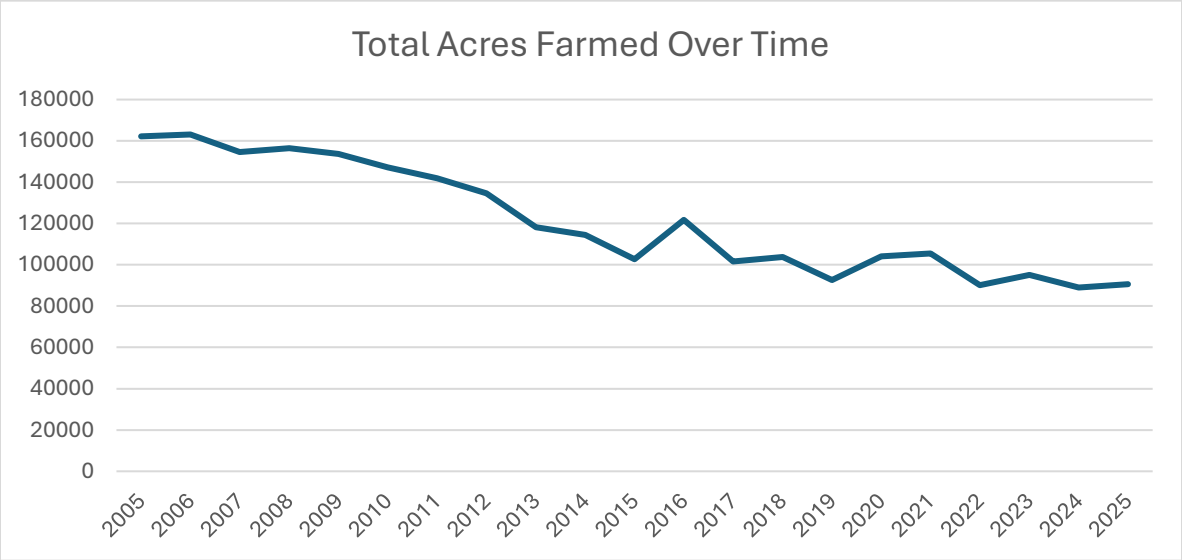
Similarly, grazing and cooperative agriculture have historically supported habitat objectives in certain locations. Grazing serves as an effective option to reduce fuel loads and wildfire risk. Grazing practices that benefit soil health, reduce erosion, enhance vegetative structure, and support migratory birds can extend onto adjacent refuge lands. Throughout this review, we engaged directly with private landowners and conservation partners, many of whom expressed strong interest in practical, mutually beneficial approaches to land stewardship. Their perspectives highlighted both the opportunities and the frustrations created when policy does not align with on-the-ground realities. In these circumstances, working lands and refuge lands function as complementary elements of a broader conservation landscape, each reinforcing the other and expanding our ability to meet habitat goals. In a time of limited staffing and growing operational demands, these cooperative efforts can act as a force multiplier, helping the System achieve outcomes that may no longer be possible through internal capacity alone.

With declining staff capacity and increasing demands on refuge lands, it is essential to review current land management policies to ensure they reflect both sound, ecological science and operational realities, and facilitate fulfillment of refuge purposes. The Service depends on strong partnerships with surrounding landowners, agricultural producers, and local communities to help meet resource management goals. A systematic evaluation is needed to determine where habitat objectives can no longer be met solely through maintenance activities or natural process restoration.

Expansion of grazing illustrates how modern tools can enhance effectiveness. Virtual fencing systems, operated through GPS collars on livestock, offer a way to achieve targeted habitat outcomes without the cost of installing or maintaining physical fencing. Integrating partner-supported tools such as this, championed by the private landowners and other stakeholders we engaged, will be essential if the System is to keep pace with evolving management needs.

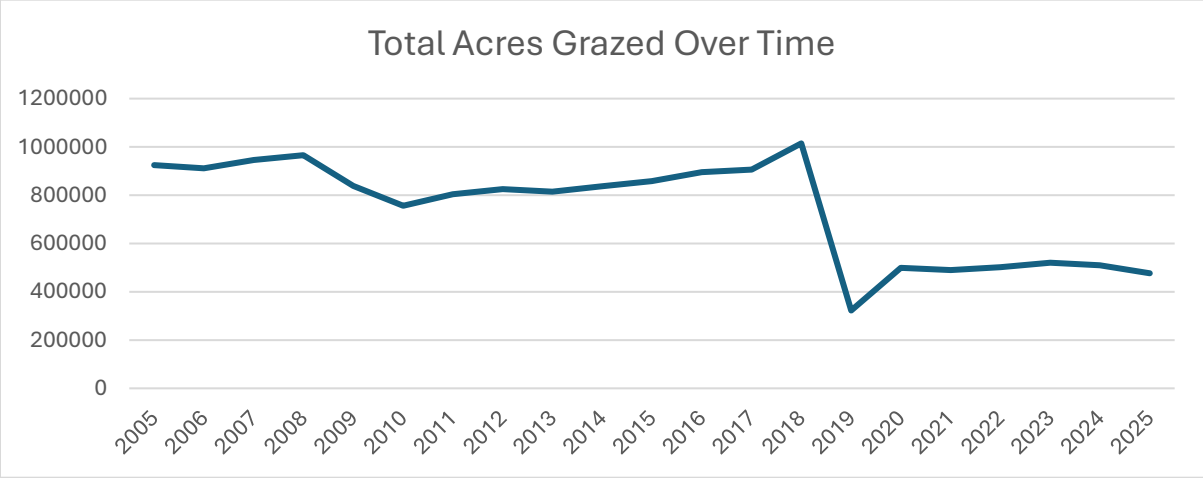
As part of this evaluation, we recommend a formal revision of Service Manual Chapter 620 FW 2. The version issued in 2017 had significant operational consequences. Shortly after its implementation, activities such as farming, grazing, and forest harvesting declined noticeably across the System, as shown in Figures 11, 12 and 13. Review participants identified policy uncertainty, inconsistent interpretation and the absence of clear guidance as barriers to using these management tools.

Figure 11: Total Acres Farmed Over Time



1. Data sourced from Refuge Annual Performance Plan (RAPP) measure 1.33. Includes both acres farmed by the Service and by cooperators. Farming must always be used to provide enhanced foraging opportunities for wildlife.
2. Farming currently occurs on approximately 16% of units by count. Count reflects the number of units out of a total of 622 units that submitted data. Counts may include a limited number of duplicate records because some refuges report data for more than one district.

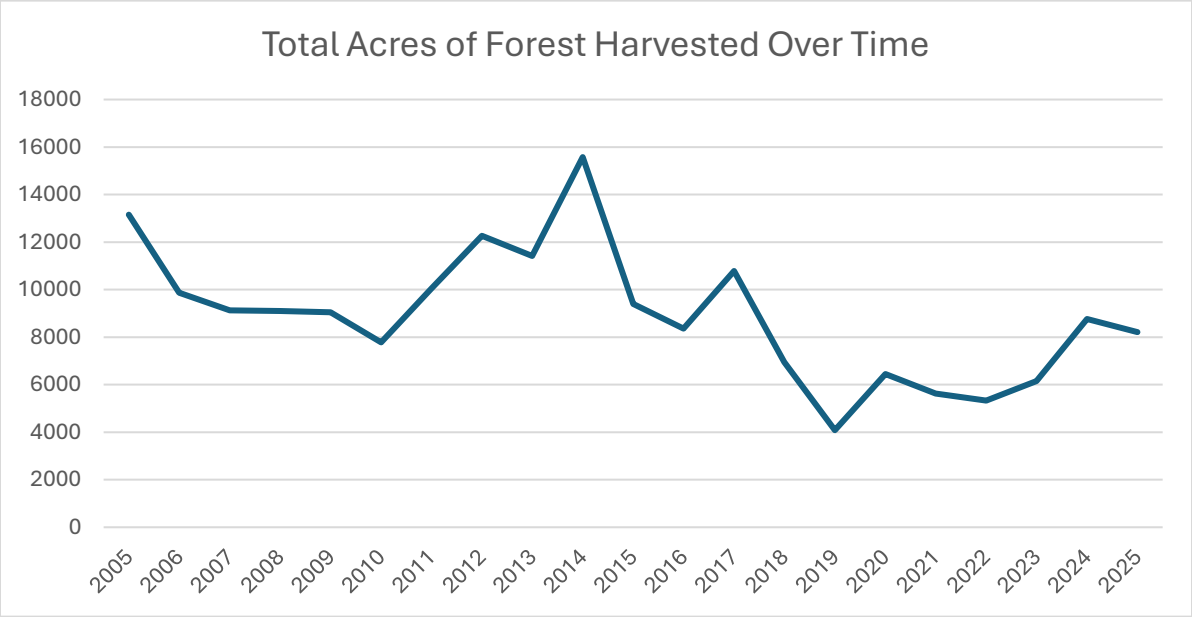
Figure 12: Total Acres Grazed Over Time



1. Data sourced from Refuge Annual Performance Plan (RAPP) measure 1.32 and includes all acres grazed by permittees and refuge cooperators on refuge lands.
2. Grazing currently occurs on approximately 18% of units by count. Count reflects the number of units out of a total of 622 units that submitted data. Counts may include a

limited number of duplicate records because some refuges report data for more than one district.

Figure 13: Total Acres of Forest Harvested Over Time



1. Data sourced from Refuge Annual Performance Plan (RAPP) measure 1.30. Includes all acres harvested that resulted in some form of wood product being made available to the public marketplace.
2. Forest Harvest currently occurs on approximately 4% of units by count. Count reflects the number of units out of a total of 622 units that submitted data. Counts may include a limited number of duplicate records because some refuges report data for more than one district.

A careful revision of habitat management policy would reinvest in responsible use that supports refuge purposes while accounting for present day staffing levels, budget limitations, and operational needs.

As the Service reassesses how to modernize habitat-management policy, it is equally important to examine the related decision-making processes that govern when and how these practices may be applied. Clear, timely, and consistently interpreted compatibility determinations are essential to ensuring that management tools including grazing, forest treatments, and agricultural practices can be applied appropriately, legally and in support of refuge purposes.

Because compatibility determinations govern not only habitat-focused activities but also right-of-way, utility, and other infrastructure uses on refuge lands, the decision-making framework must be strengthened across all categories of proposed use. Ensuring consistency and timeliness in these determinations is critical for both conservation and operational needs.

Additionally, processing of environmental reviews and other necessary actions to issue permits or easements must be timely.

According to the Service Manual (603 FW 2.6), a compatibility determination is "a written determination signed and dated by the refuge manager and Regional Chief signifying that a proposed or existing use of a national wildlife refuge is a compatible use or not a compatible use. The Director delegates this to the Regional Director." To ensure consistency, all determinations deemed "non-compatible" should be elevated from the Regional Director to the Director for concurrence. Other sections addressing compatibility determinations will also need to be updated to reflect this change.

Timely action on compatibility determinations is important, particularly for right-of-way, utility and other infrastructure applications. Any compatibility determination associated with a permit application that remains unresolved 180 days after receipt of a complete application should be elevated to the Director for decision. For easement applications, the corresponding deadline should be 270 days after receipt of a complete application. Other sections addressing compatibility determinations will need to be updated to reflect the revised escalation procedures and timelines. All decisions must comply with applicable law and required review procedures.

Recommendation: Review and update Service Manual Chapters 620 FW 2, 601 FW 3, 603 FW 1, and 603 FW 2 as necessary to reflect current operational capacity and partnership opportunities, prioritizing the strategic use of grazing as a core habitat management tool. Expand the complementary use of agriculture and active forest management where appropriate to support and enhance refuge habitat objectives.

Recommendation: Elevate compatibility determination declinations to the U.S. Fish and Wildlife Service Director.

Recommendation: Require prompt action on compatibility determinations associated with permit or easement applications. If a determination remains unresolved 180 days after receipt of a complete permit application or 270 days after receipt of a complete easement application, elevate the matter to the Director for decision.

Opening Refuges with Care and Conviction

The National Wildlife Refuge System was built on a clear idea: wildlife comes first, and public opportunities follow when they support refuge purposes and the mission. The Improvement Act identifies compatible wildlife dependent recreational uses, including hunting and fishing as priority public uses across the System. The people who rely on these opportunities are also among the strongest supporters of conservation. Through the Migratory Bird Conservation Fund, which draws revenue from Federal Duck Stamp sales and duties collected on firearms and ammunition, hunters and anglers make substantial contributions to habitat protection and refuge acquisition. In many respects, the Refuge System is sustained by the people who use it most,

making it essential that their perspectives remain represented when broader decisions about access and management are made.

Two Secretarial Orders issued by the Department of the Interior reinforce this responsibility and set clear expectations for expanding public access across lands managed by the Department. Secretarial Order 3442, issued on September 4, 2025, directs that all acquisitions funded through the Land and Water Conservation Fund advance specific goals, including improving public access and increasing recreational opportunities. Secretarial Order 3447 further directs the expansion of hunting and fishing access across Department managed lands and waters.

To fulfill the intent of these Orders, the Refuge System must have dedicated expertise to guide stations through the full spectrum of requirements associated with providing high-quality access. This need is particularly evident because the process for opening refuge lands to hunting, fishing, and trapping can be cumbersome, highly technical, and difficult to navigate. From 2017 through 2020, the Service employed Regional Chiefs of Hunting and Fishing and a Sportsman's Access Coordinator at Headquarters who provided on the ground support to refuge managers, identified where opportunities could be responsibly expanded, and offered practical guidance informed by years of field experience. Although some regions still maintain varied forms of these positions today, the structure and responsibilities are inconsistent, and in many cases the capacity is limited.

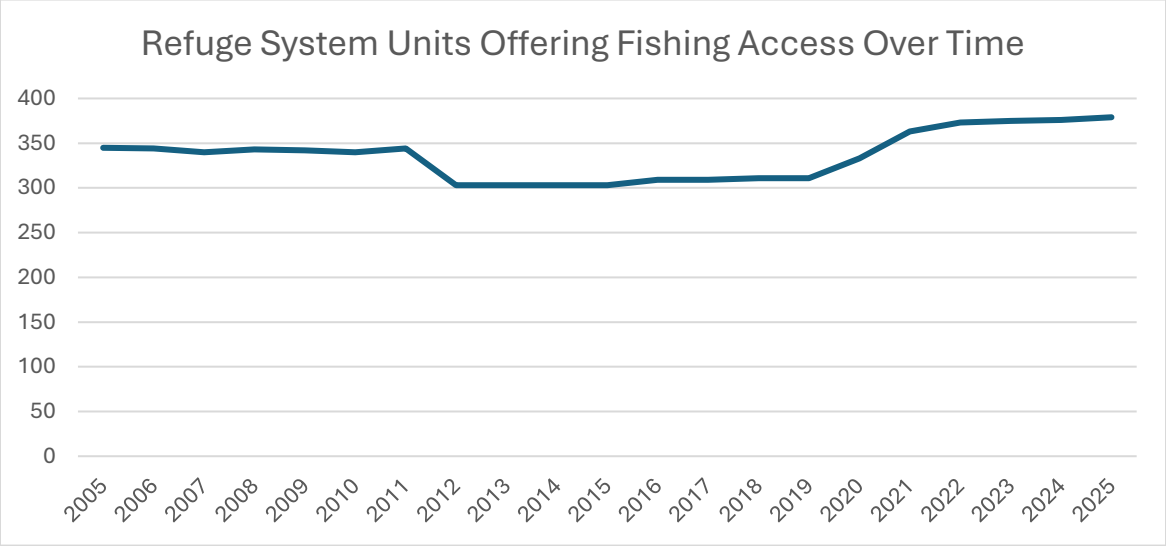
A dedicated network of regional coordinators and a national coordinator is essential to provide consistent leadership and support. Coordinators should serve as subject matter experts in compatibility determinations, National Environmental Policy Act compliance, and hunt plan development to ensure that stations can identify and develop opportunities that align with refuge purposes, the Improvement Act, and the requirements of both Secretarial Orders. In addition, coordinators should help stations use cooperative tools as a force multiplier. When local capacity is limited, coordinators can help identify practical solutions such as partnerships with state or local agencies to administer hunt events, assistance with compliance monitoring, and support for maintaining safe and orderly public access. Without this expertise, stations risk delays, inconsistent decisions, and missed opportunities to provide high-quality access that aligns with public expectations.

Service regulations that differ from those of nearby state wildlife agencies often create confusion for hunters and anglers, and these inconsistencies can undermine public trust. Coordinators can help stations address these issues by strengthening communication with state partners, evaluating opportunities to align regulations, and ensuring that decisions are grounded in sound biological reasoning and consistent policy.

These challenges are unfolding during a time of substantial growth in public access across the System. In recent years, the Service has expanded hunting, fishing, and trapping opportunities in response to public demand, departmental direction, and increased participation in outdoor recreation. The upward trend in access for hunting and fishing is depicted in Figures 14 and 15.

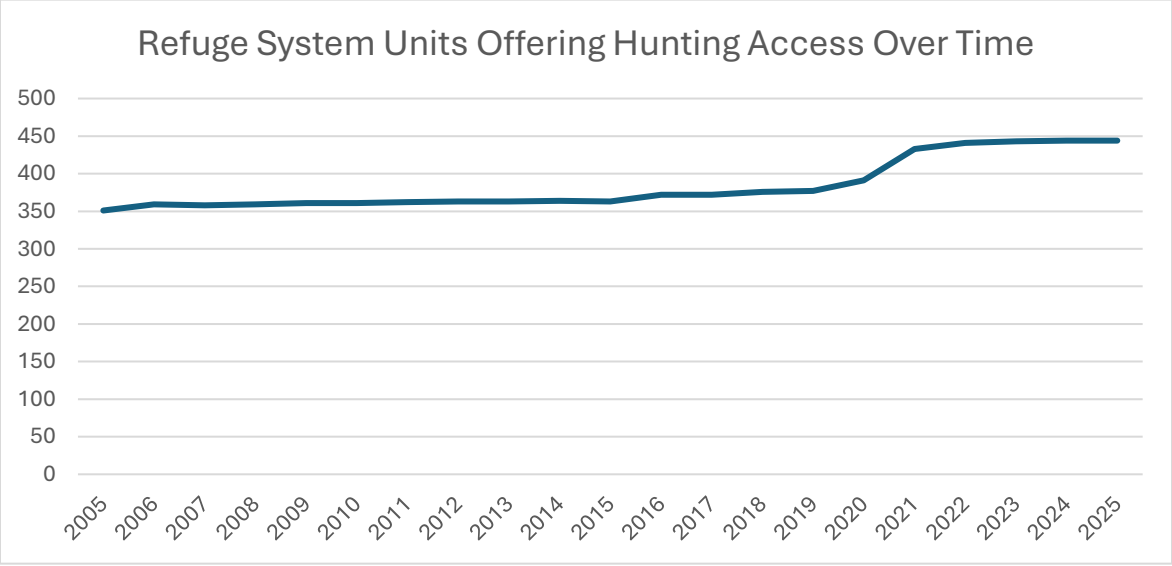
As part of this commitment to providing quality opportunities for sportsmen and women, the Service has already made substantial progress through the 2026-2027 Hunt-Fish Rule. The Service remains committed to providing hunting and fishing opportunities on refuges wherever they are compatible with refuge purposes, support habitat management objectives, and can be accommodated within existing public access conditions.

Figure 14: Refuge System Units Offering Fishing Access Over Time



1. Data is from the Refuge Annual Performance Plan (RAPP)
2. Y axis value reflects the number of units out of a total of 621 units that submitted data. Counts may include a limited number of duplicate records because some refuges report data for more than one district.
3. Units offering fishing access increased 10% from 2005 to 2025.

Figure 15: Refuge System Units Offering Hunting Access Over Time



1. Data is from the Refuge Annual Performance Plan (RAPP)
2. Y axis value reflects the number of units out of a total of 621 units that submitted data. Counts may include a limited number of duplicate records because some refuges report data for more than one district.
3. Units offering hunting access increased 26% from 2005 to 2025.

The figures make clear that continued expansion brings added expectations from the public, greater coordination with states, and increased operational complexity for field stations. As access continues to grow, the need for dedicated expertise becomes even more critical.

Coordinators should also serve as consultants to the Realty division when acquisition of land is proposed using Land and Water Conservation Fund dollars. Their expertise ensures that potential acquisitions not only contribute to important conservation outcomes but also advance the access and recreation goals established by Secretarial Order 3442. Their involvement strengthens the connection between land acquisition decisions, public expectations, and the long-term mission of the Refuge System.

To ensure meaningful representation, regional coordinators and a national coordinator should serve in advisory roles and be included as members of refuge leadership teams in all regions and Headquarters. Coordinators must be present for any conversations that influence hunting, fishing, and trapping access, rules, or restrictions. It is essential that individuals serving in these roles have practical, on-the-ground experience in hunting, fishing, and trapping. Field knowledge provides the judgment, credibility, and understanding needed to support stations, engage with partners, and navigate complex issues.

Together, these responsibilities position coordinators as central drivers of the Department commitment to expanding high-quality access, strengthening relationships with the public, and advancing the vision laid out by both Secretarial Orders. Their work ensures that the Refuge System continues to honor its conservation mission while supporting the people who have long contributed to its success.

Recommendation: Designate field-based, collateral-duty regional hunting and fishing coordinators, and a national sportsman's access coordinator, integrated into regional and national leadership teams, to strengthen consistent access decisions, support high-quality hunting and fishing opportunities and identify opportunities for expansion.

Ensuring Compliance in Comprehensive Conservation Plans

The Improvement Act of 1997 legally mandates the development of a comprehensive conservation plan for each refuge or related complex within the National Wildlife Refuge System. These plans give the public, states, and partners an opportunity to review and comment on proposed refuge activities and management priorities. The Act requires that each plan be completed within fifteen years of enactment and updated every fifteen years thereafter. A comprehensive conservation plan serves as the guiding document for each refuge and outlines

management direction for fish and wildlife resources, cultural and archaeological resources, visitor facilities, significant habitat issues, and opportunities for compatible wildlife dependent recreation. The plan functions both as a management tool and as a mechanism to ensure transparency for the American public.

A total of 616 National Wildlife Refuge System units have CCP statuses assigned to them. However, the majority of stations are now out of compliance with statutory update requirements, as shown in Table 11.

Table 11: CCP Compliance Status Across the Refuge System

Category	Count
Stations with a current CCP	113
Stations with a CCP over 15 years old requiring review	435
Stations without a CCP	68

1. CCP Data are as of April 27, 2026
2. A total of 616 Refuge System Units have a CCP status assigned

Refuge managers routinely cite limited staffing and the extensive effort required to conduct meaningful public engagement as major barriers to meeting the required schedule. This recommendation recognizes the urgency of improving compliance, while also acknowledging that refuge managers cannot shoulder this responsibility alone. Support from Regional and Headquarters offices will be essential for a successful planning process. The current situation makes it clear that relying on individual stations to meet statutory obligations without adequate staffing or structural support is neither realistic nor responsible.

A community of practice should be established for staff responsible for developing and updating comprehensive conservation plans. This group would include experts in planning, cultural resources, visitor services, and other relevant fields who can assist refuge managers with plan development. Additional support should be drawn from other Service programs.

Until the System returns to full compliance, a dedicated action team should also be created. This team would consist of Regional and Headquarters staff with the skills and experience needed to provide surge capacity to refuge managers and planners. The team should include at least one representative from each region and Headquarters to ensure cross-regional consistency and alignment with Servicewide planning expectations. Its purpose would be to help complete overdue updates efficiently and ensure that all units reach compliance with a proposed 18-month timeframe.

In addition, the Service should identify opportunities to streamline the review process for refuges with existing plans, particularly where foundational direction remains valid and only limited updates are needed. A tiered or expedited review pathway would allow staff to focus effort where substantial revisions are required, while still ensuring legal compliance and transparency.

To support future accountability, a clear timeline for CCP compliance should be established and incorporated into the annual performance evaluations of regional refuge chiefs and regional refuge supervisors. This linkage strengthens responsibility, reinforces expectations, and ensures that progress toward compliance remains a leadership priority. Integrating statutory obligations into performance measures directly addresses the accountability gap that has allowed these requirements to lapse for so long.

Recommendation: Establish a Comprehensive Conservation Plan (CCP) Support and Compliance Initiative that includes a community of practice, integration of Super Intelligence (SI), a cross-regional action team to provide surge capacity, streamlined review pathways for refuges with existing plans, and clear accountability measures to ensure every refuge achieves 100% compliance within an 18-month timeframe.

Capturing What Numbers Cannot

The Service has annual reporting requirements for the National Wildlife Refuge System that measure metrics such as total acreage, crop management, grazing, habitat management, public use opportunities, and visitations. This information is captured in the Refuge Annual Performance Plan (RAPP) system, which records primarily numerical data that is then fed into the Performance Tracking and Reporting system.

From as early as 1911 through approximately 2009, these same types of information were documented in narrative form. Although the format, level of detail, and frequency of reporting changed over time, the annual narrative served as a comprehensive summary of refuge accomplishments and major events. With the adoption of the RAPP system, annual narrative reporting was discontinued. Later, a second complimentary system, the Service Hunting and Fishing Opportunity (SHOT) tool was launched. SHOT captures hunting acreage and hunting and sport fishing opportunities within the System.

The Refuge Annual Performance Plan system effectively captures numerical performance metrics, but it cannot record the operational context, management rationale, and qualitative insights that were historically captured in annual narrative reports. For nearly a century, narratives documented management decisions, major projects, volunteer and partner contributions, fire management actions, facilities work, large purchases, and infrastructure history. They also preserved information about emerging issues, adaptive management decisions, and unusual events. This type of institutional knowledge is no longer being systematically retained.

As staff retire or move on, the absence of narrative reporting means that critical insights, decisions, and histories are increasingly lost. This makes it difficult for new personnel to understand the basis for past actions, reconstruct project histories, or maintain continuity in long term management. The result is a growing erosion of institutional memory, forcing field staff to relearn or rediscover information that was once captured annually and systematically.

Reinstating annual narratives, designed to complement rather than duplicate the RAPP system, would restore essential historical and operational context. A modern narrative could be concise and structured, aligned with existing RAPP categories, while still providing space to document major events, noteworthy accomplishments, and the explanations that numerical data alone cannot capture.

Requiring a brief annual narrative report will preserve institutional knowledge, reduce the impacts of staff turnover, support compliance and audits, and maintain the historical record necessary to understand how management approaches have evolved over time. This represents a low cost, high value improvement to the continuity, transparency, and historical integrity of the National Wildlife Refuge System.

Recommendation: Reinstate annual narrative reports for national wildlife refuges to complement the Refuge Annual Performance Plan system, preserve institutional knowledge, provide critical management context, and strengthen long term continuity and accountability across the Refuge System.

Doing What We Can, Where We Can

An effective and accountable administrative framework is essential to fulfilling the mission of the National Wildlife Refuge System. As budgets remain flat and operational demands continue to grow, the Service must ensure that every taxpayer dollar is spent responsibly, efficiently, and in alignment with statutory requirements. The issues described below highlight system wide challenges that affect financial stewardship, contracting performance, and administrative processes across the Refuge System. Together, these observations point to opportunities to reduce inefficiencies and better support the staff who carry out conservation work on the ground.

Field-Level Purchasing

Purchasing at field stations is constrained by several factors, including the limited number of authorized purchasers, low micro-purchase thresholds, and the administrative steps required for even simple transactions. With fewer purchase card holders in recent years, stations have less capacity to make local purchases independently, and the burden on remaining cardholders has increased. In many cases, authorized purchasers must travel long distances with the requestor simply to complete a local transaction. In remote locations such as Alaska, a routine purchase under $1,000 can consume more than three staff hours because of required approvals and confirmation of funds availability.

Local purchasing is further restricted by the micro-purchase threshold, which is currently $15,000 for supplies, $2,500 for most services, and $2,000 for most construction. The thresholds for services and construction are outdated and have never been adjusted for inflation. The $2,500 limit originates from the 1965 Service Contract Act, while the $2,000 construction limit dates back to the 1931 Davis Bacon Act. Although these limits were established to ensure fair wages for workers performing on Government contracts, they now create significant barriers for field

personnel who need to complete basic, low risk work quickly. Unlike the supply threshold, which is periodically adjusted for inflation, the limits for services and construction remain static.

In 2023, both the House (H.R. 144) and Senate (S. 335) introduced legislation to modernize these thresholds, but neither effort advanced. Engagement with lawmakers will be essential to updating these limits and restoring efficient field level purchasing power.

Contracting

The Refuge System depends heavily on contracted work to complete tasks that extend beyond the capacity or skill set of the Service workforce. Routine needs such as janitorial services, specialized repairs, building rehabilitation, equipment maintenance, and complex construction all rely on contractors. However, contracting issues reported by the field show that the quality of this work can vary significantly, and in many cases, it does not meet required standards or align with operational needs. Several stations described projects where contractors failed to meet specifications, produced substandard work, or required substantial oversight and correction. At Rocky Mountain Arsenal NWR in Colorado, for example, a contractor delivered a fence project so poorly that the station had to rebuild almost all of it after the contract was terminated for convenience. Refuges also described recurring problems with janitorial contractors who submitted low bids from out of state, subcontracted the work locally for reduced pay, and then provided erratic service marked by high turnover, missed tasks, and limited accountability.

A prominent theme in field reporting is the ongoing challenge of hiring qualified local contractors. Many small, community-based businesses are not registered in the System for Award Management (SAM), which is generally required for federal contract awards under the Federal Acquisition Regulation (FAR), subject to applicable exceptions. This barrier reduces competition, increases costs, and limits the ability to work with businesses that understand local conditions and community needs. Field staff repeatedly noted situations where experienced local vendors were ready and willing to perform work at reasonable cost but were ineligible for award. At Sequoyah NWR in Oklahoma, for instance, a simple vehicle repair estimated locally at $3,891 became $7,634 out of state contract because the local provider chose not to navigate the SAM registration process. Similar situations in Oregon and Nevada led to striking cost disparities, including a roof replacement with local estimates between $12,000 and $19,000 that became a $52,349 award to a contractor from Utah who then subcontracted the job to a local firm. In another case, materials quoted locally at $40,000 were ultimately purchased for $180,000 through a distant contractor who added cost without adding value. These examples, drawn from this review, highlight the need to eliminate barriers that hinder local contractors from competing effectively for award opportunities and reflect just a portion of the more than 100 documented contracting issues identified. Doing so will allow refuges to be stronger community partners, reduce markup from third party contractors, and ultimately provide better service to the American people.

Because SAM registration is generally required for federal contract awards, subject to applicable exceptions, field staff emphasized the need for clear, accessible guidance they can share with local vendors unfamiliar with federal requirements. Many stations reported spending significant time each year helping small businesses attempt to register or renew their SAM accounts. Apex Accelerators and similar resources exist to support small firms entering the federal marketplace, but these tools are only effective when field staff understand them well enough to make meaningful referrals. Improving awareness of these resources and strengthening support for local businesses would expand vendor pools, improve competition, and reinforce the community partnerships central to the Refuge System's place-based mission.

Field reporting also makes clear that contracting processes work best when Contracting Officers and Specialists understand the operational realities of refuges. Stations in remote areas described interactions in which Contracting personnel proposed approaches that were unworkable given site conditions, seasonal limitations, or access constraints. Alaska refuges, for example, described receiving questions about roll off trailers at locations accessible only by float planes, underscoring a gap in awareness of local logistics. Other stations described inconsistent interpretation of the Federal Acquisition Regulation or requests from Contracting Officers to revise technical statements of work in ways that conflicted with field needs or introduced unnecessary delays. These exchanges often required repeated clarification and additional review time, adding administrative burden to already stretched field staff.

Improving shared understanding between Contracting and the field would help address many of these issues. Training that familiarizes Contracting staff with the mission of the Refuge System and the day-to-day realities of field operations would strengthen communication, reduce misunderstandings, and help ensure that contract documents reflect practical needs and constraints. Even within the strict requirements of federal procurement law, closer alignment between program and procurement functions can reduce rework, shorten timelines, and produce better outcomes.

Contracting issues reported by the field also point to obstacles created by specific procurement pathways. The requirement to use a Multiple Award Task Order Contract (MATOC) before considering full and open competition was repeatedly cited as a source of delay and inflated costs. Stations described situations in which MATOC vendors offered bids far above the Independent Government Estimate (IGE), yet open market competition later produced prices that aligned with realistic expectations. At San Bernard NWR in Texas, MATOC bids for a metal building ranged from roughly $1 million to $1.5 million against an IGE of about $303,450. Only after shifting to open competition was the project awarded for $271,708. In the Sheldon and Hart Mountain Complex in Oregon, MATOC bids between $650,000 and $1 million for a boundary fence were ultimately replaced with an open market award of $228,000 after months of lost time. These examples illustrate how rigid procurement sequencing can delay critical work and divert limited resources away from conservation and maintenance priorities.

Field staff also described recurring challenges with prime contractors failing to pay subcontractors, which undermines trust with local vendors and discourages them from engaging in future government work. This not only damages community relationships but also reduces the availability of skilled local providers for subsequent projects.

Taken together, contracting issues reported by the field present a consistent picture across regions: the Refuge System's contracting environment functions most effectively when local expertise, clear administrative guidance, and an understanding of on the ground realities work in concert. Strengthening communication between Contracting and field staff, improving support for local businesses seeking to work with the Government, and ensuring that procurement pathways are flexible enough to match operational needs would help ensure that contracted work delivers the quality, value, and responsiveness essential to the mission of the Refuge System.

Administrative Burden from Data Calls

Field staff frequently raise concerns about the growing volume of data calls originating from multiple offices, many of which are duplicative or overlapping in scope. These uncoordinated requests disrupt operations, consume valuable time especially during peak work periods, and contribute to a mounting administrative burden. Staff emphasized that reporting requirements now consume a disproportionate share of already limited capacity. This strain stems from two converging trends: steadily increasing reporting demands and a long-term reduction in lower graded administrative positions, combined with the centralization of administrative functions at complex and regional levels. As a result, refuge managers face more data calls than ever before, while having fewer administrative staff to support them, making it increasingly difficult to stay focused on core refuge management responsibilities.

Compounding this challenge is the wide array of sources generating reporting requests, including the Service's administrative division, headquarters, regional refuge offices, and others. Staff noted that this proliferation of uncoordinated data calls not only drains time and resources but also creates confusion about priorities and expectations. Many observed that similar or identical data is often requested repeatedly by different parts of the organization, reinforcing the perception that administrative demands are expanding as field capacity contracts.

To reduce this burden, staff suggested that data calls be screened and consolidated before reaching the field. Designating a collateral duty regional coordinator to review incoming requests would help eliminate redundancy, ensure that information is collected efficiently, and prevent the same data from being gathered multiple times. Without these improvements, staff expressed concern that the imbalance between growing reporting requirements and diminishing field capacity will continue to constrain their ability to meet statutory purposes and effectively carry out mission critical work.

Non-Law Enforcement Firearms Policy

The Non-Law Enforcement Firearms Policy (Service Manual Chapter 241 FW 2), which took effect on January 16, 2025, was introduced to enhance safety for personnel who use firearms outside of a law-enforcement role. The policy requires staff to complete background checks, undergo hearing testing, and participate in annual in-person firearms training. It also directs each region to designate a Non-LE Firearms Program Manager to oversee implementation.

Although these requirements were developed with safety in mind, they impose significant financial and time burdens on staff who depend on firearms for essential on-the-ground work, such as personal protection from wildlife and the responsible management of animal populations. For many refuges that operate with limited staff and constrained budgets, the combined cost and time commitment associated with background checks, medical testing, and travel for in-person training are simply prohibitive.

As a result, the policy risks undermining the very outcomes it seeks to support. In many areas, the financial and logistical barriers will effectively prevent staff from maintaining the qualifications needed to carry out critical habitat and population management activities. Before this policy was implemented, decisions regarding non-law-enforcement firearms use were handled at the regional level, allowing managers to tailor training and safety requirements to local conditions and operational realities. Removing that flexibility may unintentionally hinder conservation efforts and reduce the Service's ability to meet its management objectives with no measurable improvements to safety.

Recommendation: Strengthen coordination between contracting and field staff, reduce barriers for qualified local businesses competing for federal work, and engage lawmakers on statutory spending limits that constrain operations.

Recommendation: Review and revise policies that impose unnecessary requirements on field employees, ensuring safeguards support safe and effective refuge operations.

Where Law Meets the Landscape

Refuge Law Enforcement plays a critical role in protecting wildlife, visitors, employees, and the integrity of refuge lands. Federal Wildlife Officers provide the essential on-the-ground presence that helps keep refuge units safe and functioning. They address natural resource violations, respond to emergencies, and help ensure visitors enjoy refuges responsibly. Their duties encompass patrols, surveillance, investigations, and close coordination with federal, state, tribal, and local partners who share responsibility for public safety and resource protection.

The scope of these responsibilities is extensive. Officers are often tasked with covering vast landscapes that may span multiple states and include remote terrain, major river systems, and large inland or coastal waters. Many patrols require extensive travel and planning, and reaching isolated units or islands can turn a short mission into a multiday effort. Water-based patrols, search and rescue missions, and emergency responses on large rivers and lakes are routine, demanding that officers operate safely and independently in challenging conditions.

These operational demands are made even more difficult by persistent staffing shortages. In many regions, officer numbers fall well below what is needed to maintain consistent presence and proactive patrols. Seven states currently have no full-time field officers, and thirteen states have only one. Patrol Captains frequently fill these gaps, though doing so does not relieve them of their supervisory duties. As noted in *The Ground We Stand On: Assessing Today's Workforce Capacity*, law enforcement staffing declined by approximately 22% between 2013 and 2025. Recruitment and retention remain difficult, particularly in the remote areas where officers are most needed. At the same time, visitation on refuge lands continues to rise and is expected to grow further in coming years.

Insufficient staffing reduces on-the-ground visibility, increases response times, and concentrates heavy workloads on too few officers, making it difficult to uphold public safety and resource protection standards. Where law enforcement presence is minimal, problems escalate quickly. Illegal activity becomes more common when individuals recognize the lack of enforcement capacity. Poaching increases, and staff have limited ability to intervene. Illegal dumping, vandalism, and trespassing also become more frequent, undermining resource protection efforts and diminishing the visitor experience.

Despite these challenges, Federal Wildlife Officers remain foundational to the success of the Refuge System. Their presence safeguards wildlife and visitors, protects refuge lands, and ensures the public can experience these places responsibly. Strengthening and investing in this workforce is essential to preserving the long-term health, safety, and resilience of the National Wildlife Refuge System.

Recommendation: Increase refuge law enforcement staffing to provide a more consistent field presence, protect refuge resources and improve public safety.

Beyond the Lower 48: Living Landscapes, Lasting Traditions

National wildlife refuges outside of the continental United States differ from those in the Lower 48 in scale, purpose, community relationships, and day to day operations. These areas include some of the largest conservation lands managed by the Service, with tens of millions of acres of remote terrestrial and marine habitat requiring distinct approaches to access, stewardship, and partnership. The vast acreage, unique ecology, remote settings, and essential community relationships all create conditions that look very different from conservation in the lower 48.

The Pacific Islands, Guam, American Samoa, Puerto Rico, and the Caribbean

Refuges in the Pacific Islands, Guam, American Samoa, Puerto Rico, and the Caribbean operate in some of the most isolated and geographically dispersed environments in the Refuge System, where limited transportation infrastructure, long distances, and seasonal weather hazards such as hurricanes, typhoons, heavy rains, and high surf constrain nearly all conservation work. In the Pacific Marine National Monuments specifically, the U.S. Fish and Wildlife Service manages twelve remote refuges but lacks reliable, scalable, and cost-effective transportation to support biological monitoring, biosecurity, maintenance, law enforcement, and partner coordination.

Access often requires small aircraft, inter island flights, and especially marine vessels, yet the Service currently relies on expensive and infrequent commercial charters, with mission costs ranging from $159,000 to more than $1 million. Because there is no mechanism to aggregate funds across fiscal years, the Service must also examine the feasibility of establishing a Monuments specific receipts account, which could provide critical flexibility by allowing multiyear planning, smoothing out episodic costs, and enabling longer and more efficient expeditions. While alternatives such as NOAA vessels or opportunistic third-party access remain inconsistent, pursuing this financial tool while also initiating the process to acquire a dedicated Service vessel similar to the Tiglax in Alaska would strengthen both near term and long-term capacity to reach remote Pacific refuge islands and fulfill core conservation responsibilities.

These regions experience frequent damage from severe storms, coastal erosion, and saltwater intrusion, placing sustained pressure on operational infrastructure. Repeated exposure to hurricanes and typhoons damages buildings, docks, equipment, and communication systems, often requiring extensive repair before routine management can resume. Staff commonly devote significant time to restoring storm damaged facilities before they can proceed with scheduled conservation work.

Despite these challenges, island refuges remain firmly aligned with the mission of the Refuge System. They conserve irreplaceable biodiversity, support resilient coastal communities, and protect cultural landscapes deeply tied to island heritage. Their work reflects a version of the Refuge System shaped by ocean distance, cultural tradition, and ecosystems that are both ancient and vulnerable.

Alaska Refuges

Alaska's national wildlife refuges encompass approximately 76 million acres, representing nearly 80% of the entire National Wildlife Refuge System. These lands contain ecosystems and resources of exceptional national importance. The Coastal Plain of the Arctic National Wildlife Refuge is central to America's long-term energy security, holding resources that strengthen American Energy Dominance. Congress recognized this role by directing the establishment of an oil and gas leasing program for the Coastal Plain in section 20001 of the Tax Cuts and Jobs Act, Pub. L. No. 115-97, § 20001, 131 Stat. 2054, 2235–2244 (2017). Managing these vast and remote landscapes requires balancing conservation responsibilities with the nation's strategic interest in maintaining reliable, domestically sourced energy.

Alaska’s national wildlife refuges include many Alaska Native villages whose relationships with these lands long predate the Refuge System. These communities rely on refuge lands and waters for food security, cultural continuity, and economic well-being. The Alaska National Interest Lands Conservation Act (ANILCA) affirms this relationship by establishing a rural subsistence priority across federal public lands, placing subsistence needs at the center of wildlife management and directing the Service to work closely with rural subsistence users and tribal organizations.

This statutory priority shapes operations in ways that differ significantly from the Lower 48. Management decisions must consider migration patterns, customary harvest practices, traditional knowledge, and the health of subsistence economies. The Service works with the Federal Subsistence Board, State of Alaska, and regional advisory councils to integrate local insight into seasons, harvest limits, and methods of take. Biological monitoring is closely linked to maintaining meaningful subsistence opportunities, and even routine management actions must account for their effects on communities that depend on these resources.

Tribal co stewardship is central to fulfilling these responsibilities. Through consultation and long-term collaborative agreements, the Service works with tribal governments, Alaska Native organizations, and local communities to support shared stewardship of lands, waters, and wildlife. Indigenous Knowledge informs planning and decision making, reflecting both legal obligations and the practical need to manage remote and culturally significant places in partnership with the people most connected to them.

Recreation and access in Alaska also differ from the rest of the Refuge System. Many visitors reach refuges by small aircraft, boat, or snowmachine rather than by road, and activity occurs across vast areas with little infrastructure. Alaska refuges prioritize safe access in remote terrain, support for subsistence uses, and protection of intact ecosystems that function at a continental scale.

Aviation

Aviation is critical to conservation work in Alaska and supports nearly every mission the U.S. Fish and Wildlife Service carries out across more than 76 million refuge acres. The Alaska Region conducts about 65% of all FWS aviation activity nationwide and operates the most complex aviation program in the agency. With 30 FWS owned fixed wing aircraft and roughly 4,000 fleet hours plus 3,000 contracted hours flown each year, aviation enables biological surveys, law enforcement patrols, subsistence monitoring, emergency response, personnel transport, and delivery of supplies to areas that cannot be reached any other way. In a state with minimal road infrastructure, aircraft equipped with tundra tires, floats, or skis provide the essential access needed for wildlife management and community engagement. Aircraft in Alaska are the pickup trucks of the Lower 48 states.

Aviation capacity has declined sharply. The number of pilots has fallen from 19 historically to only 11 today, including one aviation manager, 7 full-time pilots and 3 dual function pilots who also carry responsibilities as biologists or law enforcement officers. Developing the specialized skills required for wildlife surveys, telemetry tracking, off airport landings, and operations in extreme weather conditions typically take three to five years, creating a slow and expensive hiring pipeline. Attrition has outpaced recruitment, and the pool of available vendors has also diminished because of complex contracting requirements and Office of Aviation Services

qualifications. These staffing shortages are particularly problematic given sustained flight demand across biological programs, law enforcement, and seasonal field operations.

Contracting limitations further constrain the program. Flight services must be obtained through the Anchorage Interagency Dispatch Center, adding an intermediary step that limits direct communication between pilots and field staff. This disconnect has at times resulted in pilots arriving without a full understanding of terrain or mission needs in an environment where safety depends heavily on geographic familiarity and rapid adaptation to changing weather. Contracting delays and administrative hurdles have discouraged participation from highly experienced local operators. These challenges stand in contrast to the region's long-standing record of safe and effective operations, supported by the 2025 Alaska Regional Aviation Management Plan and strong oversight by the Regional Aviation Manager.

Fleet condition is also a growing concern. The Alaska Region's 30 aircraft average 46 years old, with some dating to 1952. Only three aircraft models remain in production, parts availability continues to decline, and operation in harsh, corrosive environments accelerates maintenance needs and costs. Replacement reserves managed through the Office of Aviation Services working capital fund have not kept pace with the modern cost of aircraft. These limitations pose long term risks to reliability and mission readiness across the state.

To adapt, the region is integrating innovative tools such as unmanned systems, photogrammetry, and automated recording units. In 2025, nearly 200 automated recording unit sites in Arctic Alaska detected 50% more species in the Arctic Refuge and 33% more in the Teshekpuk Lake area compared with traditional surveys, while reducing cost and aviation risk. These technologies reduce flight demand where appropriate but cannot replace aircraft for the many missions that require pilot skill, on site decision making, and direct access to remote terrain. Sustaining safe and effective aviation operations across Alaska's vast and remote landscape will require continued modernization and targeted investment in pilot recruitment, fleet replacement planning, streamlined contracting processes, and long-term support for aviation capabilities that remain essential to the FWS mission.

Recommendation: To ensure access to the most remote parts of the refuge system, capacity to reach geographically isolated conservation areas must be strengthened. Increase recruitment of qualified pilots in Alaska and improve the processes for hiring pilots and procuring contracted aviation services. Examine the feasibility of establishing a Pacific Monuments receipts account to provide greater flexibility for multiyear planning and consistent access to remote Pacific refuges.

Conclusion and Call to Action

From the earliest days of Paul Kroegel's steadfast vigilance and President Theodore Roosevelt's recognition of the need for National Wildlife Refuges to conserve, protect, and enhance resources for the continuing benefit of the American people, the National Wildlife Refuge System has been grounded in its identity as a field-based organization. Rooted in Purpose

reinforces a simple truth: conservation is achieved on the ground, through committed professionals who understand both the mission of the Service and the foundational purposes for which each refuge was established.

Rooted in Purpose challenges us to ensure that all future efforts directly support those establishment purposes. While other activities may offer secondary benefits, the first obligation remains unchanged: managing refuges in accordance with the purposes for which they were created. Meeting that obligation requires clarity about what the System was built to do and discipline in how decisions are made. This review also acknowledges that the System itself requires attention, offering a necessary opportunity to examine where we have fallen short, where processes no longer serve their intended purpose and where adjustments are overdue.

The Service's conservation partners played a meaningful role in shaping these insights. Through listening sessions and consultations, partners expressed both strong support for the Refuge System's mission and a shared desire to see resources, structures, and decision-making more closely aligned with statutory purpose. Their on-the-ground experience provided important perspective on how mission drift, administrative burdens, and unclear priorities and staffing inadequacies impact the ability of the System to deliver effective conservation. This feedback consistently underscores the core conclusion of this review: that the System is most valued when it is anchored in purpose, driven by mission, and grounded in sound operational practice.

In 2025, Service Director Brian Nesvik introduced Seven Lines of Effort to Achieve the U.S. Fish and Wildlife Service Mission. These seven principles guide the agency in meeting today's needs and tomorrow's opportunities.

1. *Deliver Superior Service to the American People*
2. *Invest in Our Team*
3. *Strive for Excellence*
4. *Embrace State and Tribal Fish and Wildlife Agencies*
5. *Innovate, Not Regulate*
6. *Improve Application of the Endangered Species Act*
7. *Enhance National Wildlife Refuges and National Fish Hatcheries*

Every recommendation presented here reinforces these priorities. Returning administrative professionals to the field, building a stronger maintenance workforce, embracing tools that increase operational effectiveness, and opening refuges to responsible public use further these Lines of Effort.

Since *Conserving the Future*, the Refuge System has drifted further from its field-driven origins and from the principles championed by Kroegel and Roosevelt. This drift underscores the need to reestablish a clear operational foundation and to ensure that decision-making remains accountable to on-the-ground conditions and the statutory purposes that guide each refuge. Prior initiatives did not resolve longstanding structural challenges. Without clearer priorities, stronger

accountability, and sustained commitment, the System will continue to struggle with the same operational and organizational gaps that have persisted for more than a decade.

By embracing the recommendations outlined here, the Refuge System can begin the work of correcting long-standing structural deficiencies, addressing operational failures, and realigning decisions with statutory purpose. These changes are not aspirational, they are necessary.

The opportunity before us is clear. The findings in this review demand action, not acknowledgement. The responsibility now lies in carrying out these reforms from analysis to implementation, ensuring that every decision reflects the purpose for which each refuge was created

The future strength of the National Wildlife Refuge System will depend not on tradition or identity alone, but on our willingness to act decisively, with clarity, accountability, and urgency, in service to the American people and the wildlife entrusted to our care.