

# National Wildlife Refuge System (NWRS): Overview and Issues for Congress

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# National Wildlife Refuge System (NWRs): Overview and Issues for Congress

The National Wildlife Refuge System (NWRs) is a network of 856 million acres of lands and waters administered by the U.S. Fish and Wildlife Service (FWS) to provide habitat for fish, wildlife, and plant resources across the United States, U.S. territories, and other insular areas. The NWRs consists of national wildlife refuges, waterfowl production areas, coordination areas, and national monuments. Most of the acreage (704 million acres) is in marine national monuments. The remaining 152 million acres is in all 50 states and U.S. territories, including nearly 77 million acres in Alaska. Over 100 refuges are located within 25 miles of urban areas.

NWRs units may be established or expanded through legislation and administrative actions (including presidential proclamations, executive orders, and secretarial orders). Of the 573 refuges, more than 500 were established through administrative actions; the remaining refuges were established, reestablished, or otherwise modified by Congress through legislation. Funding to expand the NWRs is available through several sources, including the Land and Water Conservation Fund and the Migratory Bird Conservation Fund. Congress often considers legislative proposals or reviews administrative actions to create, abolish, or modify units of the NWRs.

The NWRs's mission is provided in the National Wildlife Refuge System Administration Act (NWRsAA; 16 U.S.C. §668dd), as amended. The statute provides, "The mission of the System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans." The law directs FWS to manage each refuge "to fulfill the mission of the System, as well as the specific purposes for which that refuge was established," and to resolve any conflict between the two in a manner "that first protects the purposes of the refuge and, to the extent practicable, that also achieves the mission of the System." Thus, FWS must navigate implementation of NWRs-wide management requirements and refuge-specific purposes.

The statute specifies activities permitted within the NWRs and requires that activities occurring in refuges be compatible with the NWRs mission and with the purpose for which a unit was established. Further, it mandates that "wildlife-dependent recreation" activities (i.e., hunting, fishing, wildlife observation and photography, environmental education) shall be considered priority uses of the NWRs, when deemed compatible with the NWRs mission and a given unit's purpose. Most refuges are open to the public and provide recreational opportunities.

Under the National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57), FWS is to develop comprehensive conservation plans (CCPs) to specify the management of a refuge for 15 years. A CCP is to be developed for every refuge and revised every 15 years (or earlier, if conditions that affect conservation and management have changed significantly).

Congress reviews the amount and purposes of FWS's funding for NWRs management during consideration of annual Interior, Environment, and Related Agencies appropriations bills. The NWRs has expanded by approximately 760 million acres over the past two decades, placing additional management responsibilities on FWS. The majority of this increase stems from the designation of five marine national monuments for which FWS has primary or shared management responsibility. The number of annual visits to the NWRs also has increased in recent years. Some Members of Congress and stakeholders hold differing views regarding the appropriate levels of funding and staff to manage the NWRs.

Additional issues facing Congress center on the appropriate size, uses, and management priorities of the NWRs. The 118<sup>th</sup> Congress focused on the Biden Administration's former proposal to modify regulations to ensure maintenance of the biological integrity, diversity, and environmental health of the NWRs by incorporating and prioritizing consideration of climate change in management decisions. Congress may choose to further review management priorities for the NWRs.

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# National Wildlife Refuge System

The U.S. Fish and Wildlife Service (FWS), in the Department of the Interior (DOI), administers the National Wildlife Refuge System (NWRS). As of 2024, the 856-million-acre NWRS contains 573 national wildlife refuges (hereinafter referred to as *refuges*), seven national monuments, 212 waterfowl production areas (WPAs), and 48 coordination areas.<sup>1</sup> One hundred fifty-two million acres of the NWRS, including nearly 77 million acres in Alaska, are in the 50 states and U.S. territories.<sup>2</sup> The remaining acreage comprises land, submerged land, and water in marine national monuments.<sup>3</sup>

This report provides an overview of the composition and management of the NWRS, including a discussion of primary authorities used by DOI with respect to the NWRS. The report describes the NWRS mission, the establishment and modification of NWRS units, compatibility of uses on NWRS lands, and management protocols. The report discusses NWRS funding and summarizes trends in annual discretionary appropriations since FY2015 and staffing between FY2014 and FY2023. Finally, the report identifies selected issues facing Congress, including funding and staffing levels, visitor services, and compatible uses and management priorities.

## Overview of Primary Authorities

The origins of the NWRS can be traced to individual executive actions to reserve federal lands and waters for the conservation of wildlife beginning in the early 1900s. Presidents reserved the majority of these early conservation areas through executive orders, and Congress also designated some areas that would later become part of the NWRS.<sup>4</sup> In 1966, Congress established the NWRS to consolidate management of the diverse assortment of individual conservation areas.

In 1903, President Theodore Roosevelt established the first refuge at Pelican Island, Florida, to serve as a preserve and breeding ground for native birds.<sup>5</sup> Pelican Island National Bird Reservation (as it was originally known) was the first of many wildlife conservation areas established by President Roosevelt; by the end of his time in office in 1909, Roosevelt had issued 51 executive orders establishing wildlife conservation areas, primarily administered by the U.S. Department of Agriculture's Bureau of Biological Survey (a predecessor to the modern FWS).<sup>6</sup>

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<sup>1</sup> U.S. Fish and Wildlife Service (FWS), *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 1, [https://www.fws.gov/sites/default/files/documents/2022\\_annual\\_report\\_of\\_lands\\_with\\_data\\_tables.pdf](https://www.fws.gov/sites/default/files/documents/2022_annual_report_of_lands_with_data_tables.pdf); Communication between Congressional Research Service (CRS) and the FWS Office of Congressional and Legislative Affairs, December 18, 2024.

<sup>2</sup> One exception is that there are no refuges in Washington DC.

<sup>3</sup> Of the 856 million acres in the National Wildlife Refuge System (NWRS), 704 million acres are marine national monuments. FWS, *Budget Justification and Performance Information Fiscal Year 2025*, p. NWRS-1, <https://www.fws.gov/sites/default/files/documents/2024-03/fy2025-508-fws-greenbook.pdf>; FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 1; "Public Lands and Waters: By the Numbers," FWS, <https://www.fws.gov/library/collections/public-lands-and-waters>.

<sup>4</sup> For example, Congress reserved areas including the Wichita Mountain Forest and Game Preserve in 1905, the National Bison Range in 1908, and the National Elk Refuge in 1912. See FWS, *Meet the National Wildlife Refuge System: Special Places Where Wildlife and People Thrive*, March 2015, p. 6.

<sup>5</sup> In the National Wildlife Refuge System Centennial Act (P.L. 106-408), Congress recognized that "President Theodore Roosevelt began the National Wildlife Refuge System by establishing the first refuge at Pelican Island, Florida, on March 14, 1903," through an unnumbered executive order.

<sup>6</sup> FWS, *Meet the National Wildlife Refuge System: Special Places Where Wildlife and People Thrive*, March 2015, p. 6.

The Biological Survey was transferred to DOI in 1939, and in 1940, its functions were reorganized into a new agency, FWS.

The Fish and Wildlife Act of 1956 (16 U.S.C. §§742a et seq.) set comprehensive national fish and wildlife policy, including the establishment of FWS. The agency was authorized to advance wildlife conservation through acquisition of “refuge” lands, among other means.<sup>7</sup> The Refuge Recreation Act of 1962 (16 U.S.C. §460k) broadened the scope of refuge activities to allow recreation as an incidental or secondary use, as long as it was compatible with wildlife conservation.

By 1966, various congressional and administrative actions had created numerous refuges and wildlife conservation areas administered by FWS. The National Wildlife Refuge System Administration Act of 1966 (NWRSA; 16 U.S.C. §§668dd et seq.) consolidated these refuges and conservation areas into the NWRS. NWRSA has been amended several times, including through the National Wildlife Refuge System Improvement Act of 1997 (NWRZIA; P.L. 105-57). NWRZIA formally established that “the mission of the [National Wildlife Refuge] System is to administer a national network of lands and waters for the conservation, management, and where appropriate, the restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”<sup>8</sup>

NWRZIA specified activities permitted within the NWRS and required that most activities occurring in refuges be compatible with the NWRS mission and with the purpose for which the refuge was established.<sup>9</sup> Further, NWRZIA established that wildlife-dependent recreation activities (including hunting, fishing, wildlife observation and photography, and environmental education) shall be considered priority uses of the NWRS, when deemed compatible with the mission and purpose of a given unit.<sup>10</sup> Congress and the President generally declare the purposes for a refuge in the legislation, presidential proclamation, or secretarial order through which the refuge is established. These purposes may be given in specific or general terms.<sup>11</sup>

The National Wildlife Refuge Volunteer and Community Partnership Enhancement Act of 1998 (P.L. 105-242) broadened FWS’s authority to cooperate with local communities to benefit units in the NWRS.<sup>12</sup> This law amended the Fish and Wildlife Act of 1956 to authorize FWS to establish pilot programs to incorporate volunteers into refuge activities, provide volunteers with incentives and awards for participating in activities, and enter into cooperative agreements with community groups to engage in refuge activities. To carry out these programs, this law also authorized

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<sup>7</sup> For more information on the establishment of FWS, see CRS Report R45265, *U.S. Fish and Wildlife Service: An Overview*, by Caitlin Keating-Bitonti.

<sup>8</sup> 16 U.S.C. §668dd(a)(2).

<sup>9</sup> 16 U.S.C. §668dd(a)(3).

<sup>10</sup> 16 U.S.C. §668dd(a)(3)-(a)(4). Refuges acquired through the authority of conservation laws (such as the Migratory Bird Conservation Act (16 U.S.C. §§715a-715r) also are covered by the law. FWS, 601 FW 1.13, in *Service Manual*, July 26, 2006, <https://www.fws.gov/policy-library/601fw1>.

<sup>11</sup> An example of a refuge with specificity of purpose is the Atchafalaya National Wildlife Refuge. It was established “(1) to provide for the conservation and management of all fish and wildlife within the refuge; (2) to fulfill the international treaty obligations of the United States with respect to fish and wildlife; and (3) to provide opportunities for scientific research, environmental education, and fish and wildlife-oriented recreation, including hunting, fishing and trapping, birdwatching, nature photography, and others” (P.L. 98-548; 98 Stat. 2776; 16 U.S.C. §668dd note). An example of a refuge established with more general purposes and terms is the Wyandotte National Wildlife Refuge; Congress directed that the area “be maintained as a refuge and breeding place for migratory birds and other wildlife in connection therewith” (P.L. 87-119; 76 Stat. 243; 16 U.S.C. §668dd note).

<sup>12</sup> 16 U.S.C. §742f.

\$2 million in annual appropriations and mandatory appropriations of any donations and revenue from volunteer activities.<sup>13</sup>

The National Wildlife Refuge Volunteer Improvement Act of 2010 (NWRVIA; P.L. 111-357) also amended the Fish and Wildlife Act and the National Wildlife Refuge Volunteer and Community Partnership Enhancement Act to reauthorize annual appropriations for volunteer and community engagement programs.<sup>14</sup> Among other provisions, NWRVIA required FWS to publish a national strategy for coordinating volunteers at the NWRS and to delegate to volunteer coordinators the responsibilities of cooperative agreements with partner organizations.<sup>15</sup> NWRVIA also formalized FWS's volunteer programs through the creation of the National Volunteer Coordination Program, a program aimed at strengthening the link between volunteer activities and the purpose of the NWRS.<sup>16</sup>

## Type, Number, and Management of Designations

### Type and Number of Designated Areas in the NWRS

As of 2024, the total area of the NWRS is approximately 856 million acres. Of this total, 147 million acres are refuges;<sup>17</sup> 704 million acres are in marine national monuments; and the remaining acreage is in other types of land designations, including coordination areas and WPAs. These latter designations generally are subject to similar authorities as refuges but may have specific geographic or ecological factors that require different management needs. Thus, the authorities establishing and governing an area may provide for specific management terms and conditions that may differ from general FWS authorities. These designations are summarized below.<sup>18</sup>

### *National Wildlife Refuges*

The NWRS contains 573 refuges. **Figure 1** depicts the location of refuges. Each state and U.S. territory contains at least one refuge (for the total number and acreage of national wildlife refuges in each state and U.S. territory, see the **Appendix**). Areas may be managed as national wildlife refuges even if the term “refuge” is not in their name. Some refuges are called “conservation

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<sup>13</sup> Ibid.

<sup>14</sup> 16 U.S.C. §742f-1. The authorization of appropriations has been reauthorized or extended several times. Most recently, P.L. 117-328 (Consolidated Appropriations Act, 2023; 136 Stat. 5228) extended the authorization through FY2027 (16 U.S.C. §742f(g)).

<sup>15</sup> 16 U.S.C. §742f-1(2)(A), (C). FWS, *Volunteer and Partner Involvement in the National Wildlife Refuge System*, November 8, 2013, [https://issuu.com/nationalwildliferefugesystem/docs/community\\_partnership\\_guide](https://issuu.com/nationalwildliferefugesystem/docs/community_partnership_guide).

<sup>16</sup> 16 U.S.C. §742f-1(1). The authorization of appropriations for the National Volunteer Coordination Program (16 U.S.C. §742f-1(3)) ended in FY2014, and these appropriations have not been reauthorized.

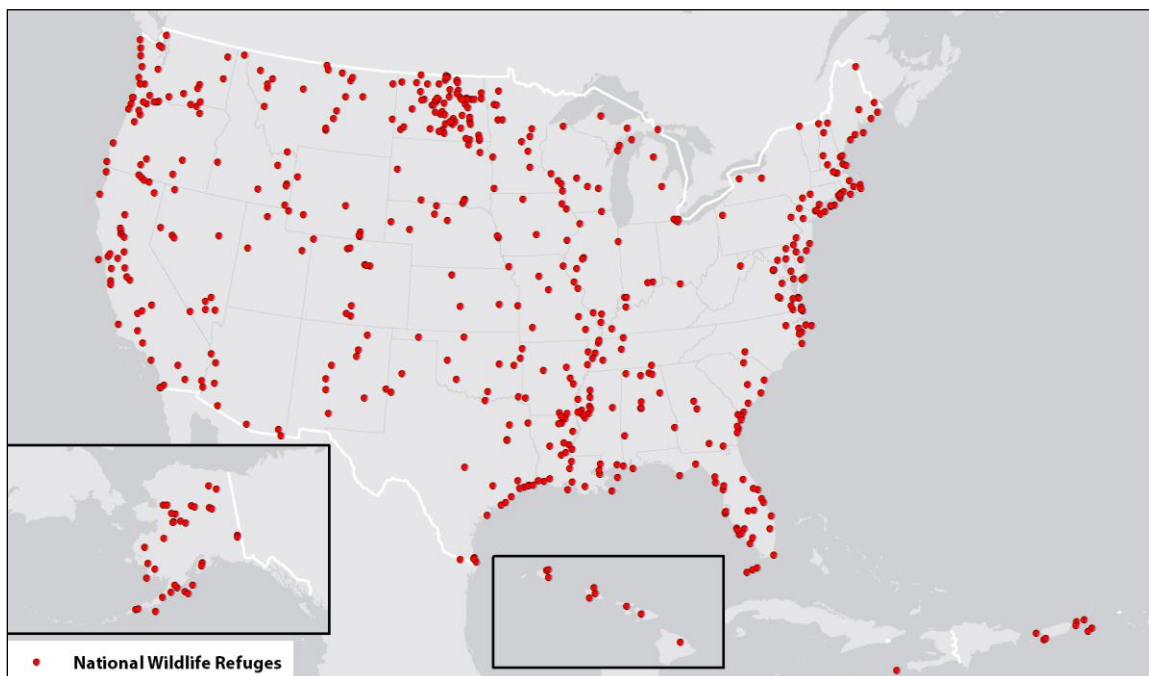
<sup>17</sup> Communication between CRS and the FWS Office of Congressional and Legislative Affairs, December 18, 2024; FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, pp. 1, 52-53; FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-1; FWS, “Public Lands and Waters: By the Numbers,” <https://www.fws.gov/library/collections/public-lands-and-waters>. Refuges may contain areas with special designations. For example, 81 congressionally designated wilderness areas (covering 20.7 million acres) are located in refuges. See FWS, “Proposed Refuge System Wilderness Areas,” <https://www.fws.gov/program/wilderness/refuge-system-proposed-wilderness>; FWS, “National Wildlife Refuges that Contain Designated Wilderness,” <https://www.fws.gov/program/wilderness/national-wildlife-refuges-contain-designated-wilderness>.

<sup>18</sup> For more information on federal land designations, see CRS Report R45340, *Federal Land Designations: A Brief Guide*, coordinated by Laura B. Comay.



areas” or “wildlife management areas.” These names are generally used to refer to refuges that consist primarily or entirely of conservation easements on nonfederal lands.<sup>19</sup>

**Figure 1. Select National Wildlife Refuges in the United States**



**Source:** Congressional Research Service (CRS) from U.S. Fish and Wildlife Service (FWS), “National Wildlife Refuge System GIS Data and Mapping Tools: National Realty Tracts,” <https://www.fws.gov/service/national-wildlife-refuge-system-gis-data-and-mapping-tools>.

**Notes:** The map shows only national wildlife refuges. Refuges located in the Pacific Ocean, outside of Hawaii, are omitted. Other kinds of units in the National Wildlife Refuge System (e.g., waterfowl production areas, coordination areas, and national monuments) are omitted. Dot sizes do not correlate with refuge sizes.

### *Waterfowl Production Areas*

WPAs are wetlands or grasslands that have been acquired by FWS using revenue from the Migratory Bird Hunting Stamp Act, as amended, to provide habitat for waterfowl and other wildlife.<sup>20</sup> WPAs can include federal lands and nonfederal lands managed by FWS through conservation easements. WPAs often are small areas that may be widely dispersed across states. FWS has established 212 WPAs organized into 38 administrative units called *wetland management districts*. A single wetland management district can span several local jurisdictions. As of December 2024, there were approximately 4.6 million acres of WPAs.<sup>21</sup>

<sup>19</sup> There are 15 conservation areas and nine wildlife management areas among the 573 refuges. For more information on these areas, see FWS, “Conservation Area,” <https://www.fws.gov/glossary/conservation-area>, accessed December 31, 2024; FWS, “Wildlife Management Area,” <https://www.fws.gov/glossary/wildlife-management-area>, accessed December 31, 2024.

<sup>20</sup> 16 U.S.C. §718d(b)(3); 50 C.F.R. §25.12.

<sup>21</sup> Communication between CRS and the FWS Office of Congressional and Legislative Affairs, December 18, 2024; FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 1.



## Coordination Areas

Coordination areas typically are federal lands managed with or by states through cooperative agreements between FWS and state fish and wildlife agencies pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. §664) or by long-term leases entered into under the authority of the Bankhead-Jones Farm Tenant Act (7 U.S.C. §§1010 et seq.).<sup>22</sup> As of December 2024, there were 48 coordination areas covering 259,085 acres.<sup>23</sup>

## National Monuments

National monuments can be created on federal lands by acts of Congress or by the President. They have been established in land and marine areas.<sup>24</sup> FWS manages or comanages seven national monuments entirely or partially within the NWRS. Five are marine national monuments, which encompass approximately 704 million acres of the NWRS.<sup>25</sup>

FWS comanages some national monuments with the Department of Defense, the Department of Energy, the National Oceanic and Atmospheric Administration, the National Park Service, and state or territorial partners.<sup>26</sup> **Figure 2** shows marine national monuments located in the Pacific Ocean.

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<sup>22</sup> 50 C.F.R. §25.12.

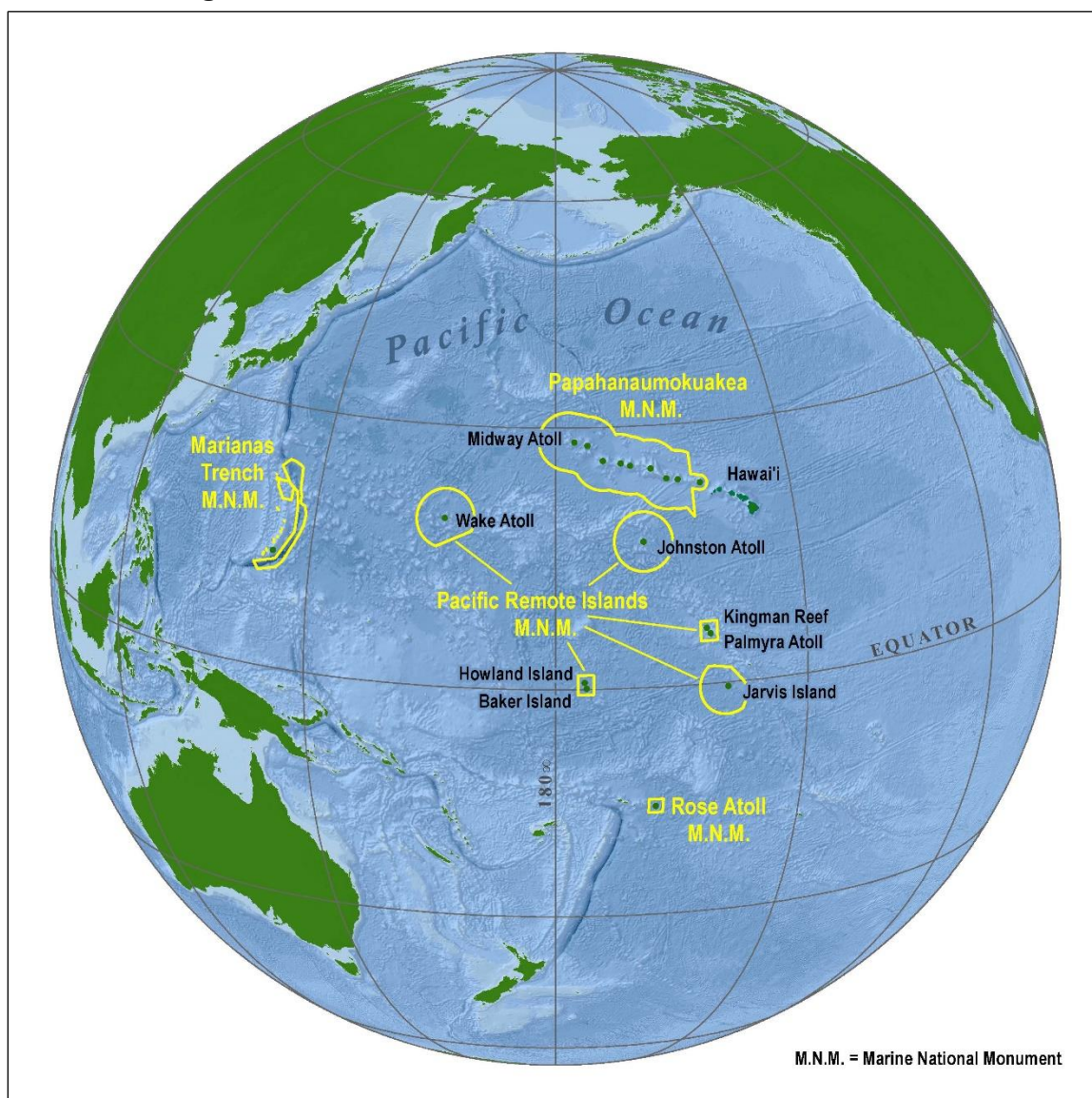
<sup>23</sup> Communication between CRS and the FWS Office of Congressional and Legislative Affairs, December 18, 2024.

<sup>24</sup> Presidential designations of national monuments are made using the authority of the Antiquities Act of 1906 (54 U.S.C. §§320301-320303). For information on national monuments under the Antiquities Act, see CRS Report R41330, *National Monuments and the Antiquities Act*, by Carol Hardy Vincent, and CRS Report R45718, *The Antiquities Act: History, Current Litigation, and Considerations for the 116th Congress*, coordinated by Erin H. Ward.

<sup>25</sup> Several of the marine national monuments have additional national wildlife refuges within their boundaries. Acreage associated with these refuges is not included in the total acreage reported for the marine national monuments. Communication between CRS and the FWS Office of Congressional and Legislative Affairs, December 18, 2024; FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-10.

<sup>26</sup> FWS has comanagement responsibilities for portions of the Hanford Reach National Monument (with the Department of Energy); World War II Valor in the Pacific National Monument (with the National Park Service and the Department of Defense); and the Papahānaumokuākea (with the National Oceanic and Atmospheric Administration [NOAA] and the State of Hawaii), Rose Atoll (with NOAA and the Government of American Samoa), and Northeast Canyons and Seamounts (with NOAA) Marine National Monuments. FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 32; FWS, “Marine National Monument,” <https://www.fws.gov/glossary/marine-national-monument>.

**Figure 2. Marine National Monuments in the Pacific Ocean**



**Source:** FWS, “Marine National Monuments in the Pacific Ocean,” March 20, 2023, <https://www.fws.gov/media/marine-national-monuments-pacific-ocean>.

**Notes:** The yellow highlighted areas indicate marine national monuments within the jurisdiction of FWS. FWS shares administrative responsibility with the National Oceanic and Atmospheric Administration for the Northeast Canyons and Seamounts Marine National Monument in the Atlantic Ocean, which is excluded from this map. The green dots indicate refuges included in national monument boundaries. Dot sizes do not correlate with refuge sizes.

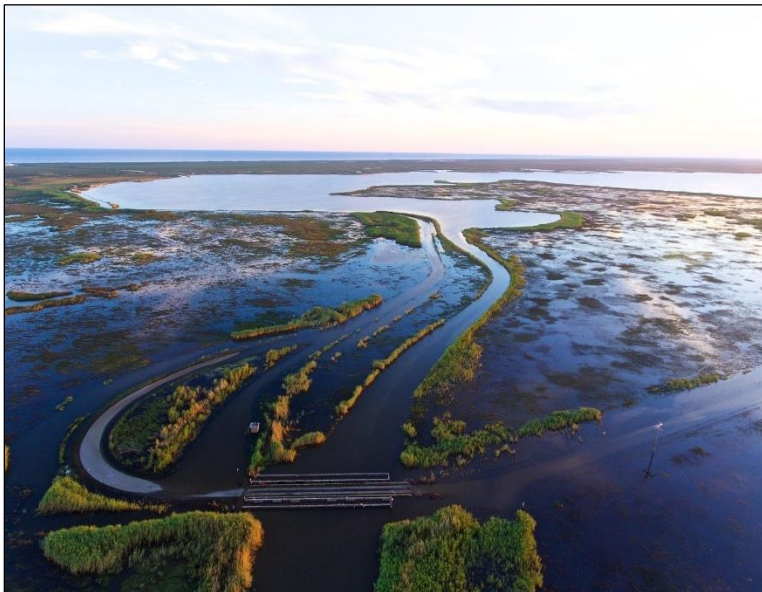
## Management of Selected Types of Refuges

The NWRS covers many types of ecosystems, including forests, prairies, desert, coral reefs, tundra, urban ecosystems, and wetlands. Management plans and uses vary in these units based on the ecosystem and landscape they cover. Selected types of refuges and their management issues are discussed below as illustrative.

### Coastal National Wildlife Refuges

Over 160 refuges are in coastal areas that contain tidal marshes, barrier beaches, dunes, and coastal scrub.<sup>27</sup> Management plans from these refuges identify conservation priorities, such as conserving endangered or threatened species (e.g., piping plovers, southern sea otters).<sup>28</sup> FWS reports that coastal refuges also buffer communities from storm-related flooding (see **Figure 3**).<sup>29</sup> Some coastal refuges have management needs to address issues such as sea level rise, erosion, and coastal flooding.<sup>30</sup>

**Figure 3. Coastal Refuges as Buffers to Storm-Related Flooding**



**Source:** FWS, “Hurricane Flooding at McFaddin National Wildlife Refuge,” September 8, 2017, <https://www.fws.gov/media/hurricane-flooding-mcfaddin-national-wildlife-refuge>.

**Notes:** This photo shows flooding at the McFaddin National Wildlife Refuge in Texas following Hurricane Harvey in 2017. The refuge helped mitigate storm surge during the hurricane.

### National Wildlife Refuges in or near Urban Areas

Over 100 refuges are located within 25 miles of urban areas (e.g., see the photograph of the John Heinz National Wildlife Refuge in **Figure 4**).<sup>31</sup> According to FWS, refuges in or near urban areas are a key component of the agency’s Urban Wildlife Conservation Program; FWS defines several goals for the Urban Wildlife Conservation Program, including improving access to nature near cities, prioritizing commitments to communities surrounding refuges, and addressing racial

<sup>27</sup> Data from FWS, Land Acquisition and Realty Division, “National Wildlife Refuge System GIS Data and Mapping Tools,” <https://www.fws.gov/service/national-wildlife-refuge-system-gis-data-and-mapping-tools>.

<sup>28</sup> FWS Region 5, *Edwin B. Forsythe National Wildlife Refuge Comprehensive Conservation Plan*, June 2004; FWS Region 8, *Salinas River National Wildlife Refuge Comprehensive Conservation Plan*, February 2015.

<sup>29</sup> Department of the Interior (DOI), *FY2022 Interior Budget in Brief, U.S. Fish and Wildlife Service*, p. BH-73, <https://www.doi.gov/sites/doi.gov/files/fy2022-bib-bh069.pdf>.

<sup>30</sup> For example, see the Wildlife Society, “Blackwater National Wildlife Refuge Fights Sea Level Rise,” July 30, 2021, <https://wildlife.org/watch-blackwater-national-wildlife-refuge-fights-sea-level-rise/>.

<sup>31</sup> FWS, “Urban Wildlife Conservation,” <https://www.fws.gov/program/urban-wildlife-conservation>.



inequality in conservation.<sup>32</sup> Refuges near urban areas might face certain challenges for managing wildlife, according to FWS. For example, refuges may need to attend to nutrient and pollution runoff from roads or parking lots and the effects of high visitation rates, which can affect sensitive wildlife resources.<sup>33</sup>

**Figure 4. The John Heinz National Wildlife Refuge: The First Urban Refuge**



**Source:** FWS, “John Heinz National Wildlife Refuge with City Skyline in Background,” November 4, 2014, <https://www.fws.gov/media/john-heinz-national-wildlife-refuge-city-skyline-background> (photo credit: Axel Brunst, FWS).

**Notes:** Located in Philadelphia, PA, the John Heinz National Wildlife Refuge was established in 1972 and is regarded as the first urban refuge.

### *National Wildlife Refuges in Arctic Areas*

The Arctic National Wildlife Refuge and the Yukon Flats National Wildlife Refuge are located in the arctic region of Alaska. They are some of the largest refuges in the NWRS at over 19 million acres and over 8 million acres, respectively.<sup>34</sup> These refuges contain arctic ecosystems that depend on the existence of permafrost, such as taiga and tundra ecosystems. Conservation plans from these refuges identify conservation priorities for certain iconic species such as polar bear, brown bear, caribou, and muskox.<sup>35</sup> The large area and multiple uses of these refuges can create management challenges for balancing conservation and resource extraction. For example, the Arctic National Wildlife Refuge has been the subject of extensive stakeholder interest,

<sup>32</sup> FWS, *Urban Wildlife Conservation Program Critical Elements*, <https://www.fws.gov/sites/default/files/documents/Critical%20Elements.pdf>; Natalie R. Sexton et al., “The Urban Wildlife Conservation Program: Building a Broader Conservation Community,” *Cities and the Environment (CATE)*, vol. 8, no. 1 (2015), <https://digitalcommons.lmu.edu/cate/vol8/iss1/3>.

<sup>33</sup> For example, Barbara Bell et al., “High Incidence of Deformity in Aquatic Turtles in the John Heinz National Wildlife Refuge,” *Environmental Pollution*, vol. 142, no. 3 (2006), pp. 457-465, <https://doi.org/10.1016/j.envpol.2005.10.020>.

<sup>34</sup> FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 10.

<sup>35</sup> FWS Region 7, *Yukon Flats National Wildlife Refuge: Comprehensive Conservation Plan, Environmental Impact Statement, and Wilderness Review*, October 1987.

congressional debate, and legislative and administrative action in relation to oil and gas drilling.<sup>36</sup> Other unique attributes of refuges in Alaska are discussed in the textbox below.

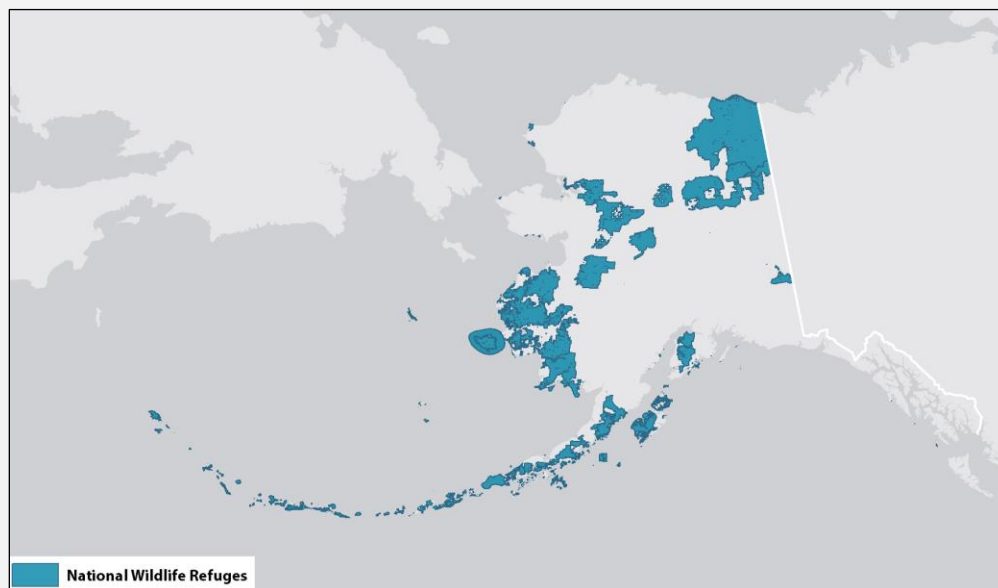
### National Wildlife Refuges in Alaska

The U.S. Fish and Wildlife Service (FWS) administers nearly 77 million acres of land in Alaska across 16 refuges (see **Figure 5**). Of this total, almost 19 million acres are congressionally designated wilderness areas.

Unlike other states and U.S. territories, management of refuges in Alaska is governed by a state-specific statute, the Alaska National Interest Lands Conservation Act of 1980 (ANILCA; P.L. 96-487, 16 U.S.C. §§410hh-3233 and 43 U.S.C. §§1602-1784). ANILCA established distinct purposes for refuges in Alaska, in addition to the purposes established by the National Wildlife Refuge System Administration Act (NWRSA; 16 U.S.C. §668dd): to provide for continued subsistence uses by Alaska Natives and to grant certain hunting and fishing rights, among other purposes. ANILCA also established nine new refuges, including the Arctic National Wildlife Refuge, and expanded or modified seven others.

Refuges in Alaska also are subject to their own guidelines for the comprehensive conservation planning process (discussed in the “Comprehensive Conservation Plans” section of this report), which includes consultation obligations with state agencies and Alaska Native groups. When provisions of ANILCA are inconsistent with NWRSA, ANILCA’s provisions take precedence.

**Figure 5. National Wildlife Refuge Lands in Alaska**



**Sources:** Map generated by the CRS from data in FWS’s ArcGIS Region 7 National Wildlife Refuge Land Status dataset, <https://gis-fws.opendata.arcgis.com/maps/1066701b01654c9c9b2e04c51f9612bc>; and FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, pp. 10, 52.

**Note:** For more information on subsistence uses on federal lands in Alaska, see CRS Report R47511, *Subsistence Uses of Resources in Alaska: An Overview of Federal Management*, by Mark K. DeSantis and Erin H. Ward.

Not all FWS lands are managed as a part of the NWRS. FWS manages or comanages some national monument areas that are excluded from the NWRS. In these cases, the presidential proclamations that established these areas specify alternative management arrangements. In

<sup>36</sup> For information on the debate and congressional actions related to oil and gas drilling in the Arctic National Wildlife Refuge, see CRS In Focus IF12006, *Arctic National Wildlife Refuge: Status of Oil and Gas Program*, by Laura B. Comay; CRS Report RL32838, *Arctic National Wildlife Refuge (ANWR): Votes and Legislative Actions, 96th-114th Congresses*, by Laura B. Comay; and CRS Report RL33872, *Arctic National Wildlife Refuge (ANWR): An Overview*, by Laura B. Comay, Michael Ratner, and Christopher R. Field.

addition, FWS manages national fish hatcheries as part of the National Fish Hatchery System of lands and waters.<sup>37</sup> Administrative sites, including maintenance facilities and offices, are not considered part of the NWRS. As of September 30, 2022, FWS managed over 19 million acres of land and waters outside of the NWRS.<sup>38</sup>

## Establishment and Modification of Units in the NWRS

NWRS units may be established or expanded through legislation and administrative actions. Of the 573 refuges, more than 500 were established through administrative actions (i.e., presidential proclamations, executive orders, and secretarial orders); the remaining refuges were established, reestablished, or otherwise modified by Congress through legislation.<sup>39</sup>

FWS has authorities to acquire land and to expand or establish refuges. These include the specific authority of NWRSA as well as the more general authorities of the Migratory Bird Conservation Act of 1929 (16 U.S.C. §§715-715d), the Fish and Wildlife Coordination Act of 1934 (16 U.S.C. §§661-666(e)), the Fish and Wildlife Act of 1956 (16 U.S.C. §§742(a)-754), the Refuge Recreation Act (16 U.S.C. §460k), and the Endangered Species Act of 1973 (16 U.S.C. §§1531-1544), among other laws.<sup>40</sup> In addition, under the Federal Land Policy and Management Act of 1976 (FLPMA; 43 U.S.C. §§1701 et seq.), the Secretary of the Interior (through the Bureau of Land Management) may issue a public land order to withdraw and reserve lands from the public domain for inclusion in the NWRS.<sup>41</sup>

### Planning Procedures for the Establishment or Expansion of National Wildlife Refuges

FWS evaluates the establishment of new national wildlife refuges and major expansions to existing refuges through a three-phase planning process. This process is specified in FWS policy manuals, as outlined below:

- **Pre-planning.** Pre-planning is when FWS identifies priority conservation areas suitable for protection and gathers information and resources to develop a land protection strategy (LPS). This process might include participating in landscape planning and consultation with partners and stakeholders.
- **Land Protection Strategy.** An LPS is a proposal to create or expand one or more refuges within a landscape where FWS and its partners have completed landscape planning. Unless Congress authorizes the creation or expansion of a refuge, the FWS regional director must obtain the FWS director's approval of an LPS before starting a land protection plan (LPP).

<sup>37</sup> FWS, *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, p. 1.

<sup>38</sup> Ibid. This statistic is drawn from the most recent publicly available data.

<sup>39</sup> Congress has acted to modify and codify many of the administratively established refuges, making it difficult to clearly differentiate which refuges were established through administrative and which were established through legislative action. Communication between CRS and the FWS Office of Congressional and Legislative Affairs, April 11, 2018.

<sup>40</sup> FWS, "Real Property Acquisition Authorities and Responsibilities," 340 FW 1, in *Service Manual*, February 12, 2015, <https://www.fws.gov/policy-library/340fw1>. Also see "Summary of Relevant Authorities, Real Property Acquisition," 340 FW 1, Exhibit 1, in *Service Manual*, <https://www.fws.gov/sites/default/files/policy/pdfs/e1340fw1.pdf>. For additional information on land acquisition authorities, see CRS Report RL34273, *Federal Land Ownership: Acquisition and Disposal Authorities*, coordinated by Carol Hardy Vincent.

<sup>41</sup> 43 U.S.C. §1714. According to FWS, "Non-Purchase Acquisition; Withdrawal," 342 FW 5.9, in *Service Manual*, initially, withdrawals were made by the President through executive orders under inherent power or under the act of June 25, 1910 (Pickett Act; 36 Stat. 847). (FWS, "Non-Purchase Acquisition; Withdrawal," 342 FW 5.9, in *Service Manual*, <https://www.fws.gov/policy-library/342fw5>.) In 1952, President Harry Truman issued Executive Order 10355, which delegated the President's authority to make withdrawals to the Secretary of the Interior. Thereafter, withdrawals were made by the Secretary via public land orders. (White House, "Executive Order 10355, Delegating to the Secretary of the Interior Authority of the President to Withdraw or Reserve Lands of the United States for Public Purposes," 17 *Federal Register* 4831, May 26, 1952, [https://archives.federalregister.gov/issue\\_slice/1952/5/28/4831-4833.pdf](https://archives.federalregister.gov/issue_slice/1952/5/28/4831-4833.pdf).)

- **Land Protection Plan.** Once the director approves an LPS or Congress authorizes the creation or expansion of a refuge, an LPP is developed to evaluate the project proposal. LPPs provide a management plan for the lands proposed for protection and describe the refuge's purpose. They also specify land acquisition boundaries and the amount of acreage and types of interests in land proposed for acquisition (e.g., fee or easement) and outline how FWS will engage with landowners within the project area. LPPs must comply with other applicable laws, regulations, policies, and executive orders. LPPs are made available for public comments. After considering the LPP and public comments, the FWS director approves or disapproves the proposal for establishing or expanding the refuge. If the director approves an LPP is approved, then FWS is authorized to purchase lands and interests in lands (e.g., conservation easements) from willing sellers.<sup>42</sup> A new refuge is formally established when FWS acquires the first parcel of land.

LPSs and LPPs are not required in the case of minor expansions, which may be approved by regional directors.<sup>43</sup>

**Source:** FWS, "Land Protection Planning," 602 FW 2, in *Service Manual*, April 1, 2024, <https://www.fws.gov/policy-library/602fw2>.

FWS does not have broad authority to dispose of lands in the NWRS. With certain limited exceptions, NWRS lands can be disposed of only by act of Congress.<sup>44</sup> For refuge lands reserved from the public domain, FLPMA prohibits the Secretary of the Interior from modifying or revoking any land withdrawals that added lands to the NWRS.<sup>45</sup> NWRSAA authorizes disposal of acquired lands within the NWRS under specific conditions: (1) the disposal is part of an authorized land exchange (16 U.S.C. §§668dd(a)(6) and (b)(3)); (2) the disposal is through a cooperative agreement with a state or local government; or (3) the Secretary of the Interior finds the lands are no longer necessary to meet the purpose of the refuge or NWRS and the Migratory Bird Conservation Commission approves the disposal (16 U.S.C. §668dd(a)(5)).<sup>46</sup>

Congress considers land acquisition and disposal policies in the context of deliberations on the role and objectives of the federal government in owning and managing property generally. The extent and nature of federal land ownership is a perennial issue.<sup>47</sup> Some Members of Congress contend that federal land ownership is excessive and that some lands should be conveyed out of federal ownership.<sup>48</sup> Other Members support the policy of retaining lands in federal ownership on

<sup>42</sup> FWS is not required to acquire lands in authorized acquisition boundaries. FWS, 602 FW 2.13, in *Service Manual*, April 1, 2024, <https://www.fws.gov/policy-library/602fw2>.

<sup>43</sup> FWS defines *minor expansions* as cases "when the total acreage authorized for acquisition at a refuge is increased by either: (1) a cumulative total of 15 percent or less of the acquisition acreage approved by the President, the Secretary, the Director, or Congress; or 2) a cumulative total of 50 or fewer acres, whichever is greater." Additionally, "minor expansions must be contiguous with or adjacent to (within 1 mile) the established unit." FWS, 602 FW 2.8(c) and 2.14, in *Service Manual*, April 1, 2024, <https://www.fws.gov/policy-library/602fw2>.

<sup>44</sup> 16 U.S.C. §668dd(a)(5) and (6).

<sup>45</sup> 43 U.S.C. §1714(j).

<sup>46</sup> In this situation, the disposal must recover the acquisition cost or be at the fair market value of the lands (whichever is higher). Receipts must be deposited in the Migratory Bird Conservation Fund. The Migratory Bird Conservation Act (16 U.S.C. §715a) established the Migratory Bird Conservation Commission to oversee the Migratory Bird Conservation Fund (MBCF). The commission is chaired by the Secretary of the Interior, and its membership consists of the Administrator of the Environmental Protection Agency, the Secretary of Agriculture, two Members from the Senate, and two Members from the House of Representatives. For more information on FWS's land acquisition and disposal authorities, see CRS Report RL34273, *Federal Land Ownership: Acquisition and Disposal Authorities*, coordinated by Carol Hardy Vincent.

<sup>47</sup> For further discussion of federal land ownership issues, see CRS Report R42346, *Federal Land Ownership: Overview and Data*, by Carol Hardy Vincent and Laura A. Hanson, and CRS Report R43429, *Federal Lands and Related Resources: Overview and Selected Issues for the 118th Congress*, coordinated by Katie Hoover.

<sup>48</sup> See for example, U.S. Congress, House Committee on Natural Resources, *Promoting Conservation with a Purpose on America's Federal Lands and Forests*, oversight hearing, 118<sup>th</sup> Cong., 1<sup>st</sup> sess., March 8, 2023, Serial no. 118-7, pp. 28-29. In the 118<sup>th</sup> Congress, some bills were introduced to prevent a net increase in federal lands by directing federal (continued...)



behalf of the public and sometimes advocate adding more lands to enhance conservation or recreation.<sup>49</sup> Congress often considers legislative proposals or reviews administrative actions to create, abolish, or modify units of the NWRS. To this effect, Members have expressed support for or opposition to initiatives to establish, abolish, or modify refuges through introduction of legislation and statements.<sup>50</sup>

## Land Acquisition Boundaries and Funding

FWS prioritizes land to be acquired through a process of establishing acquisition boundaries. These boundaries delineate areas that may contribute to a given refuge's purpose. The FWS director may approve acquisition boundaries using general and specific land acquisition authorities.<sup>51</sup> Once acquisition boundaries are approved, the FWS Land Acquisition and Realty Division may acquire lands or interests in lands from willing sellers, under FWS policy.<sup>52</sup> Acquisition boundaries do not impose any obligations on landowners to sell their land. When a refuge is created through legislative action, the law may specify the acquisition boundary and may require FWS to keep a map of the boundary available for inspection.<sup>53</sup> FWS's Land Acquisition and Realty Division maintains a geodatabase of acquisition boundaries and parcels in which FWS has a real estate interest.<sup>54</sup>

A refuge is officially established once the first parcel of land is acquired.<sup>55</sup> Funding to expand the NWRS comes from two primary sources: (1) the Migratory Bird Conservation Fund (MBCF) and (2) the Land and Water Conservation Fund (LWCF). Both funds have mandatory spending authority.

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agencies that acquire lands to offer an equal amount of land for sale or by barring federal funds for certain acquisitions unless equal amounts of federal land are disposed of. See H.R. 10089 (No Net Gain in Federal Lands Act of 2024; 118<sup>th</sup> Congress) and H.R. 172 (Acre In, Acre Out Act; 118<sup>th</sup> Congress).

<sup>49</sup> See, for example, Rep. Castor, "Chair Castor Praises 'America The Beautiful' Initiative to Protect 30% of Lands & Waters," press release, May 6, 2021, <https://castor.house.gov/climatecrisis/news/press-releases/chair-castor-praises-america-beautiful-initiative-protect-30-lands-waters.html>.

<sup>50</sup> For examples of recent proposals to establish or expand refuges, see H.R. 9826 (San Pablo Bay National Wildlife Refuge Expansion Act of 2024; 118<sup>th</sup> Congress); S. 4669 (Western Riverside National Wildlife Refuge Act; 117<sup>th</sup> Congress). For examples of statements and proposals to oppose expansion of refuges, see Rep. Jodey Arrington, "Congressman Arrington: Why I Oppose the Muleshoe Wildlife Refuge Expansion," *Dallas Morning News* (September 17, 2024), <https://arrington.house.gov/news/documentsingle.aspx?DocumentID=2432>; H.R. 9429 (To Prohibit the Implementation of a Land Protection Plan for Muleshoe National Wildlife Refuge; 118<sup>th</sup> Congress); H.Amdt. 1125 to H.R. 8998 (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2025; 118<sup>th</sup> Congress). In the past, bills have been introduced to restrict the authority of the Secretary of the Interior to expand or establish refuges. Two examples from the 113<sup>th</sup> Congress are H.R. 638 (National Wildlife Refuge Review Act of 2013) and H.R. 3409 (National Wildlife Refuge Expansion Limitation Act of 2013).

<sup>51</sup> These authorities include NWRSA and the Migratory Bird Conservation Act. For a list of FWS's land acquisition authorities, see FWS 340 FW 1, Table 1-1, in *Service Manual*, February 12, 2015, <https://www.fws.gov/policy-library/340fw1>.

<sup>52</sup> During public comment periods about potential refuges, some stakeholders have raised concerns about FWS's potential use of eminent domain. FWS states that its policy is to acquire land from willing sellers. FWS, 602 FW 2.5D, in *Service Manual*, April 1, 2024, <https://www.fws.gov/policy-library/602fw2>.

<sup>53</sup> For example, the Red River National Wildlife Refuge Act (P.L. 106-300, 114 Stat. 1056) contains the provision, "The Secretary shall keep the map referred to in paragraph (1) available for inspection in appropriate offices of the United States Fish and Wildlife Service."

<sup>54</sup> FWS, "National Wildlife Refuge System GIS Data and Mapping Tools," <https://www.fws.gov/service/national-wildlife-refuge-system-gis-data-and-mapping-tools>.

<sup>55</sup> FWS may acquire fee title to lands, as well as interests in lands, such as conservation easements. An interest in lands is something less than full ownership. Hereinafter, the term *acquisition of land* is used to include acquisition in fee and acquisition of interests, unless otherwise specified.

The MBCF was created by Migratory Bird Conservation Act and serves as a permanently appropriated source of funding to acquire lands that provide habitat for migratory birds.<sup>56</sup> The funding available from the MBCF for land acquisition varies from year to year based on fluctuations in revenues deposited into the fund.

The MBCF receives funds from several sources. These sources include revenue from the sale of Migratory Bird Hunting and Conservation Stamps, known as *Duck Stamps*, pursuant to the Migratory Bird Hunting and Conservation Stamp Act of March 18, 1934 (16 U.S.C. §718), as amended, and import duties on arms and ammunition levied by the Emergency Wetlands Resource Act of 1986 (16 U.S.C. §3912).<sup>57</sup> Between 1935 and 2023, the MBCF provided \$2 billion (in nominal dollars) to acquire 6.3 million acres within the NWRS.<sup>58</sup>

Proposed MCBF acquisitions require approval by the Migratory Bird Conservation Commission. The commission will not consider a proposal to acquire land in a state until the state has consented to the acquisition.<sup>59</sup> During its history, the commission has approved the use of MBCF funding to establish or expand approximately 260 refuges.<sup>60</sup>

The LWCF was established by the LWCF Act of 1965 (54 U.S.C. §§200301 et seq.). Among other purposes, the LWCF serves as a major source of funds for land acquisition by FWS and by the National Park Service, Bureau of Land Management, and U.S. Forest Service.<sup>61</sup> The Great American Outdoors Act (P.L. 116-152) permanently appropriated \$900 million in annual LWCF funding for all LWCF Act purposes.<sup>62</sup>

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<sup>56</sup> 16 U.S.C. §718d.

<sup>57</sup> The Migratory Bird Hunting and Conservation Stamp Act requires waterfowl hunters over the age of 16 to annually purchase and carry a valid federal Duck Stamp in addition to any required licenses under state laws. The MBCF also may receive revenue from other sources, including payments for rights-of-way granted across refuge lands, proceeds from refuge land disposals, and reallocations of unspent state-reverted Federal Aid in Wildlife Restoration funds (16 U.S.C. §669b). For more information on Federal Aid in Wildlife Restoration apportionments, see CRS Report R45667, *Pittman-Robertson Wildlife Restoration Act: Understanding Apportionments for States and Territories*, by Pervaze A. Sheikh.

<sup>58</sup> Of the 6.3 million acres, 3.2 million were acquired in fee and 3.1 million acres were acquired through conservation easements. FWS, *Budget Justifications and Performance Information: Fiscal Year 2025*, p. MBC-3.

<sup>59</sup> The Secretary of the Interior may not propose to acquire lands without first (1) determining the lands are necessary for the conservation of migratory birds and (2) consulting with the relevant local government and with the governor of the state or the appropriate state agency (16 U.S.C. §715c). No land may be acquired through the MBCF in a state unless the acquisition has been approved by the governor of the state or the appropriate state agency (16 U.S.C. §715k-5). Further, no lands may be acquired in fee in a state unless the state has enacted a law consenting to the acquisition of the lands by the United States (16 U.S.C. §715f). State officials that administer wildlife laws (or their representative) serve as ex-officio members of the Migratory Bird Conservation Commission and vote on proposed land acquisitions in their state (16 U.S.C. §715a). See also FWS, *Budget Justifications and Performance Information: Fiscal Year 2025*, p. MBC-3.

<sup>60</sup> FWS, *Budget Justifications and Performance Information: Fiscal Year 2025*, pp. MBC-2.

<sup>61</sup> For example, in 2023, FWS used funds from the LWCF to establish the Wyoming Toad Conservation Area, which is managed as a national wildlife refuge. Department of the Interior, “Interior Department Announces Establishment of Two New National Wildlife Refuges in Wyoming and Tennessee,” press release, October 10, 2023, <https://www.doi.gov/pressreleases/interior-department-announces-establishment-two-new-national-wildlife-refuges-wyoming>.

<sup>62</sup> Of the annual appropriations under the LWCF Act, a portion (not less than 3% or \$15.0 million, whichever is greater) is to be used for acquisitions that improve access to federal land for recreational purposes (54 U.S.C. §200306(c)). Further, LWCF funds can be used for “accounts and programs” that received appropriations from the LWCF under P.L. 116-94, the Further Consolidated Appropriations Act, 2020 (54 U.S.C. §200303(a)). That law contained appropriations for Section 6 of the Endangered Species Act (i.e., Cooperative Endangered Species Conservation Fund grants), among other programs. More information on the LWCF is available in CRS In Focus (continued...)

The LWCF Act prescribes a procedure for allocating the \$900 million in annual revenue under the LWCF Act.<sup>63</sup> Under the procedure, Congress may allocate funding for specific land acquisitions from the LWCF after considering recommendations from the President. FWS typically prioritizes acquisitions based on biological criteria, including recovery of species listed as threatened or endangered under the Endangered Species Act, implementation of the North American Waterfowl Management Plan, and protection of migratory birds of conservation concern. Other considerations include the availability of willing sellers, the extent of congressional support, and regional conservation priorities.<sup>64</sup>

## Management of the National Wildlife Refuge System

### NWRS Mission, Purposes, and Compatible Uses

The mission of the NWRS is to administer a national network of lands and waters for the conservation, management, and—where appropriate—restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.<sup>65</sup> NWRSIA requires FWS to ensure that the biological integrity, diversity, and environmental health of the NWRS is maintained for the future.<sup>66</sup> NWRSAA, as amended, directs FWS to manage each refuge “to fulfill the mission of the System, as well as the specific purposes for which that refuge was established, except 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, that also achieves the mission of the System.”<sup>67</sup> Managers of NWRS units must try to coordinate NWRS-wide management requirements with refuge-specific purposes; in some cases, this can be challenging. Some NWRS units were established under a wide variety of authorities for a diverse set of purposes.

By law, the NWRS is to be managed specifically for the conservation of fish, wildlife, and plants. Therefore, areas of the NWRS are closed to public access and use unless the Secretary of the Interior (acting through FWS) has determined the use is compatible with the NWRS mission and

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IF12256, *Land and Water Conservation Fund (LWCF): Frequently Asked Questions*, by Carol Hardy Vincent; CRS In Focus IF11636, *The Great American Outdoors Act (P.L. 116-152)*, by Carol Hardy Vincent, Laura B. Comay, and Bill Heniff Jr.; and CRS Report R46957, *Recreational Access Acquisitions: Overview and Recent Funding History*, by Carol Hardy Vincent and Eric P. Nardi.

<sup>63</sup> 54 U.S.C. §200303(c)).

<sup>64</sup> Information in this paragraph is derived from CRS Report R46563, *Land and Water Conservation Fund: Processes and Criteria for Allocating Funds*, coordinated by Carol Hardy Vincent. See also FWS’s Strategic Growth Policy, 602 FW 5, in *Service Manual*, September 4, 2014, <https://www.fws.gov/policy-library/602fw5>. The North American Waterfowl Management Plan is a collaborative strategy between the United States, Canada, and Mexico to restore waterfowl populations. See FWS, “North American Waterfowl Management Plan,” <https://www.fws.gov/partner/north-american-waterfowl-management-plan>. FWS identifies birds of conservation concern from conservation assessments in three bird conservation plans: Partners in Flight, United States Shorebird Conservation Plan, and North American Waterbird Conservation Plan. For more information on birds of conservation concern, see FWS, 602 FW 5.6B, in *Service Manual*, September 4, 2014, <https://www.fws.gov/policy-library/602fw5>.

<sup>65</sup> 16 U.S.C. §668dd(a)(2).

<sup>66</sup> 16 U.S.C. §668dd(a)(4)(B).

<sup>67</sup> 16 U.S.C. §668dd(a)(4)(D).

the purposes for which these areas were established.<sup>68</sup> FWS is to identify and permit activities that “will not materially interfere with or detract from the fulfillment of the mission of the System or the purposes of the refuge.”<sup>69</sup> Further, “wildlife-dependent recreation,” including hunting, fishing, wildlife observation, photography, and environmental education and interpretation, are priority uses of the NWRS, when compatible with the NWRS mission and purpose of a given refuge.<sup>70</sup> Most refuges are open to recreation in one form or another. For instance, as of November 6, 2024, hunting was permitted on 401 refuges and 36 wetland management districts. Fishing was permitted on 343 refuges and 35 wetland management districts.<sup>71</sup>

Congress did not provide similar priority for other uses, including timber harvesting, livestock grazing, and energy and mineral development. Such economic uses are more limited in the NWRS,<sup>72</sup> in contrast to their role in the lands of some other federal land management agencies (i.e., Bureau of Land Management, U.S. Forest Service) with statutory multiple-use mandates to balance conservation, recreation, and economic activities.<sup>73</sup>

FWS’s administration of refuge uses has long been the subject of scrutiny. In the 1980s and early 1990s, a series of studies found that many refuges tolerated incompatible uses. These findings prompted congressional oversight and consideration of legislative proposals for reform. In 1996, President Bill Clinton issued Executive Order 12996 to reform management of the NWRS. The order specified the NWRS mission and clarified administration of conservation and public use mandates. Congress expanded on the executive order in NWRSIA (P.L. 105-57).<sup>74</sup>

<sup>68</sup> 16 U.S.C. §668dd(d)(3)(A)(i). Regulations governing the opening and closing of NWRS units to uses are at 50 C.F.R. §25.21. FWS defines *refuge uses* at 50 C.F.R. §25.12 to mean “a recreational use (including refuge actions associated with a recreational use or other general public use), refuge management economic activity, or other use of a national wildlife refuge by the public or other non-National Wildlife Refuge System entity.”

<sup>69</sup> 16 U.S.C. §668ee(1).

<sup>70</sup> 16 U.S.C. §668dd(3)-(4). For information on hunting and fishing on federal lands, see CRS Report R45103, *Hunting and Fishing on Federal Lands and Waters: Overview and Issues for Congress*, by Mark K. DeSantis.

<sup>71</sup> FWS, “U.S. Fish and Wildlife Service Finalizes New Public Access to Hunting and Fishing in National Wildlife Refuge System,” press release, November 6, 2024, <https://www.fws.gov/press-release/2024-11/us-fish-and-wildlife-service-finalizes-new-public-access-hunting-and-fishing>.

<sup>72</sup> This is generally true of all refuges except those in Alaska. Oil and gas operations in the NWRS generally happen in cases where the United States owns surface rights to lands but the mineral rights remain in nonfederal ownership. In limited circumstances, the Department of the Interior permits leases for oil and gas development of federally owned mineral resources in the NWRS. Mining is generally prohibited in the NWRS. Livestock grazing reportedly happens on over 1 million acres in the NWRS. Timber harvesting is estimated to occur on several thousand acres of the NWRS annually. For more information on uses, see John D. Leshy, *Our Common Ground: A History of America’s Public Lands* (New Haven, CT: Yale University Press, 2021), pp. 533-534 (hereinafter Leshy, *Our Common Ground*); FWS, “Oil, Gas and Mineral Management,” <https://www.fws.gov/program/oil-gas-and-mineral-management>.

<sup>73</sup> Congress occasionally has provided for specific economic uses in refuges. For instance, see provisions related to agricultural use at 16 U.S.C. §3211 (Yukon Flats National Wildlife Refuge) and 16 U.S.C. §6951 (Tule Lake, Lower Klamath, and Clear Lake National Wildlife Refuges). For information on differences between uses of NWRS and other federal lands, see Leshy, *Our Common Ground*, p. 534.

<sup>74</sup> Leshy, *Our Common Ground*, pp. 531-532; U.S. General Accounting Office, *National Wildlife Refuges: Continuing Problems with Incompatible Uses Call for Bold Action*, RCED-89-196, September 8, 1989; U.S. House of Representatives, Subcommittee on Fisheries and Wildlife Conservation and the Environment of the Committee on Merchant Marine and Fisheries, *Management of the National Wildlife Refuge System: The Status of Efforts to Improve Management of the National Wildlife Refuge System*, hearing, 102<sup>nd</sup> Cong., 1<sup>st</sup> sess., March 21, 1991; Executive Office of the President, “Executive Order 12996 of March 25, 1996, Management and General Public Use of the National Wildlife Refuge System,” 61 *Federal Register* 13647, March 28, 1996, <https://www.federalregister.gov/d/96-7774>.

Through NWRSIA, Congress directed FWS to issue regulations to establish the process for determining compatible uses within the NWRS.<sup>75</sup> In response, FWS promulgated a final rule on October 18, 2000.<sup>76</sup> In the rule, FWS outlined when compatibility determinations are required and how they should be conducted. The FWS director delegates authority to make compatibility determinations through regional directors to individual refuge managers.<sup>77</sup> FWS refuge managers are to deny proposed uses without making compatibility determinations if the proposed use conflicts with applicable laws, regulations, executive orders, or DOI or FWS policies; goals or objectives in an approved refuge management plan; or public safety.<sup>78</sup> For uses other than wildlife-dependent recreational uses, a refuge manager may reject a proposed use without determining compatibility if the refuge has insufficient funding and staff to manage the proposed use.<sup>79</sup>

Refuge managers are required to exercise “sound professional judgement” to determine if a proposed use will “materially interfere” with the fulfillment of the NWRS mission or the purposes for which a refuge was established.<sup>80</sup> After making a determination, the refuge manager is required to provide a written justification for the determination, including a description of how the proposed use would or would not materially interfere with the NWRS mission or refuge purposes. The refuge manager submits compatibility determinations to the regional chief for review. If the regional chief does not concur with the refuge manager’s findings, the determination is referred to the regional director.<sup>81</sup> In instances where existing uses are determined to be no longer compatible, the regulations say FWS will terminate or modify the use to make it compatible.<sup>82</sup>

## Refuge Management Use Exceptions

The rule also specified refuge management activities that do not require compatibility determinations. These activities involve actions by FWS (or an FWS authorized agent), including the following:

- Prescribed burning;

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<sup>75</sup> 16 U.S.C. §668dd(d)3(B).

<sup>76</sup> FWS, “Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997,” 65 *Federal Register* 62458-62496, October 18, 2000, <https://www.federalregister.gov/documents/2000/10/18/00-26390/final-compatibility-policy-pursuant-to-the-national-wildlife-refuge-system-improvement-act-of-1997>. The rule is written into FWS 603 FW 2, in *Service Manual*, November 17, 2000, <https://www.fws.gov/policy-library/603fw2>.

<sup>77</sup> FWS defines a *compatibility determination* as “[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 is not a compatible use.” 50 C.F.R. §25.12(a).

<sup>78</sup> FWS, 603 FW 2, in *Service Manual*, November 17, 2000, <https://www.fws.gov/policy-library/603fw2>.

<sup>79</sup> *Ibid.*

<sup>80</sup> FWS defines *sound professional judgment* as “[a] finding, determination, or decision that is consistent with principles of sound fish and wildlife management and administration, available science and resources, and adherence to the requirements of NWRSA and other applicable laws. Included in this finding, determination, or decision is a refuge manager’s field experience and knowledge of the particular refuge’s resources.” 50 C.F.R. §25.12(a).

<sup>81</sup> FWS, “Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997,” 65 *Federal Register* 62458-62496, October 18, 2000, <https://www.federalregister.gov/d/00-26390/p-145>. Regional directors are senior to regional chiefs. 50 C.F.R. §25.12 defines *regional director* to mean “the official in charge of a Region of the U.S. Fish and Wildlife Service or the authorized representative of such official.” A *regional chief* is defined as an “official in charge of the National Wildlife Refuge System within a Region of the U.S. Fish and Wildlife Service or the authorized representative of such official.”

<sup>82</sup> 50 C.F.R. §26.41(d).



- Water level management;
- Invasive species control;
- Routine scientific monitoring, studies, surveys, and censuses;
- Historic preservation activities;
- Law enforcement activities;
- Maintenance of existing refuge facilities; and
- State wildlife management activities on a refuge pursuant to a cooperative agreement between the state and FWS where the refuge manager has made a written determination that such activities support fulfilling the refuge purposes or NWRS mission.<sup>83</sup>

Under NWRSAA, the Secretary of the Interior may temporarily suspend, allow, or initiate any use in a refuge if the Secretary determines it is necessary to act immediately to protect public health and safety or any fish or wildlife population.<sup>84</sup> Under FWS regulations, authority to make emergency decisions may be delegated to the refuge manager. Temporary actions should not exceed 30 days and are not subject to the compatibility determination process.<sup>85</sup>

## Comprehensive Conservation Plans

Under NWRSIA, FWS is required to develop comprehensive conservation plans (CCPs) to specify the management of a refuge for 15 years. A CCP is to be developed for every refuge and revised every 15 years (or earlier, if conditions that affect conservation and management have changed significantly).<sup>86</sup> Out of 573 refuges, according to FWS's FY2025 budget justification, approximately 70 refuges have not developed a CCP and more than 300 CCPs require revision.<sup>87</sup>

NWRSIA established conservation planning and monitoring of natural resources as two key science-based programs for refuge management. The statute specifies topics that CCPs shall address and provides a process for soliciting stakeholder input on draft plans.<sup>88</sup> Each CCP is to address the following issues:

- The purposes of the refuge;
- The distribution, migration patterns, and abundance of fish, wildlife, and plant populations and related habitats;
- Archaeological and cultural values;
- Areas that may be used as administrative sites or visitor facilities;

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<sup>83</sup> FWS, "Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997," 65 *Federal Register*, p. 62488.

<sup>84</sup> 16 U.S.C. §668dd(k).

<sup>85</sup> Further, when using this authority, refuge managers must notify the regional chief in advance of the decision or as soon as possible afterward, in cases where the nature of the emergency requires immediate response. Refuge managers also are required to create a written record of the decision, the reasons supporting it, and why it was necessary to protect the health and safety of the public or any fish or wildlife population. FWS, "Final Compatibility Policy Pursuant to the National Wildlife Refuge System Improvement Act of 1997," 65 *Federal Register*, pp. 62488-62489, October 18, 2000; 50 C.F.R. §25.21(c).

<sup>86</sup> 16 U.S.C. §668dd(e). According to FWS, 602 FW 1, Exhibit 1, in *Service Manual*, April 1, 2024, <https://www.fws.gov/policy-library/e1602fw1>, comprehensive conservation plans are not required for coordination areas.

<sup>87</sup> FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-31.

<sup>88</sup> 16 U.S.C. §668dd(e).

- Threats to populations and habitats of fish, wildlife, and plants, as well as actions necessary to mitigate threats; and
- Opportunities for compatible wildlife-dependent recreational uses.

The development and revision of CCPs are to follow a process that provides an opportunity for active public involvement.<sup>89</sup> Specifically, under NWRSA, FWS shall make the proposed plan available for review and must publish a notice of opportunity for public comment in the *Federal Register*. The final CCP is to include a summary of comments and responses to any issues expressed in the public comment period. Stakeholders with an interest in the development of a CCP may include states, local governments, owners of adjacent or potentially affected land, Tribes, and other federal agencies. As provided in NWRSA, FWS is to ensure that CCPs are consistent with state fish and wildlife conservation plans, to the extent practicable.<sup>90</sup>

NWRSA requires that FWS “monitor the status and trends of fish, wildlife, and plants in each refuge.”<sup>91</sup> FWS addresses its monitoring responsibilities through the Inventory and Monitoring program (I&M), coordinated by FWS’s Natural Resource Program Center.<sup>92</sup> CCPs help guide I&M priorities at each refuge. According to FWS, I&M addresses several needs, including the following:

- Monitoring changes in geophysical, biological, and human environments;
- Supporting adaptive management to maximize the impact of appropriated resources;
- Informing emerging and urgent issues, such as control of wildlife diseases; and
- Providing data curation to ensure both preservation and access to information for FWS employees, partners, academia, and the public.<sup>93</sup>

## National Wildlife Refuge System Appropriations and Budget Structure

Funding for the NWRS is an annual consideration for Congress and of interest to many stakeholders. FWS receives both discretionary and mandatory appropriations for the NWRS. Congress provides discretionary funding for FWS in annual Interior, Environment, and Related Agencies appropriations laws. Laws authorizing mandatory appropriations allow FWS to spend money without further action by Congress, and the budget authority for several of these mandatory spending accounts depends on revenue generated by activities on FWS lands, including lands in the NWRS. The primary source of funding for the management of the NWRS is FWS’s discretionary NWRS account, although funding also may come from other discretionary

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<sup>89</sup> 16 U.S.C. §668(e)(1)(A)(ii) and §668(e)(4).

<sup>90</sup> 16 U.S.C. §668dd(e).

<sup>91</sup> 16 U.S.C. §668dd(a)(4)(N).

<sup>92</sup> FWS, “Natural Resource Program Center,” <https://www.fws.gov/program/natural-resource-center>.

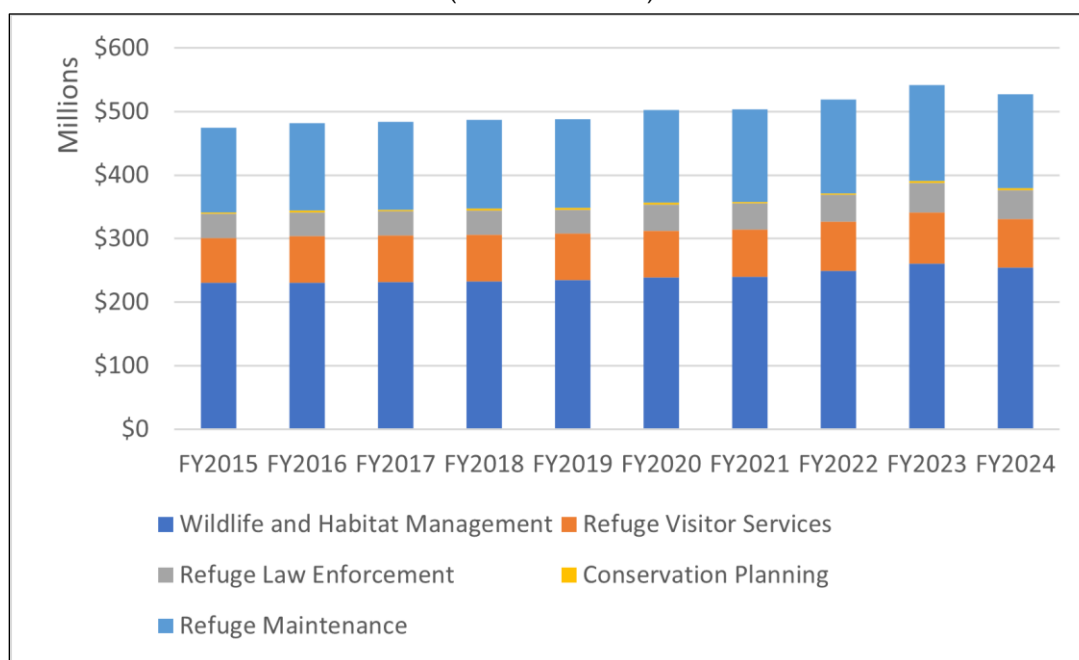
<sup>93</sup> FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-7.



accounts and mandatory accounts.<sup>94</sup> In FY2024, the NWRS account received \$527.0 million, down from the FY2023 level of \$541.6 million.<sup>95</sup>

The NWRS account includes funding for five sub-activities. The largest sub-activity is Wildlife and Habitat Management, which funds a wide variety of operations, including inventorying and monitoring of wildlife populations and ecosystems, restoring habitats, managing invasive species, detecting and responding to wildlife diseases, supporting tribal co-stewardship, and managing marine national monuments.<sup>96</sup> Other sub-activities are Refuge Visitor Services, Refuge Law Enforcement, Conservation Planning (the primary source of funding for CCPs), and Refuge Maintenance (which includes maintenance activities and supporting equipment and vehicle management). **Figure 6** presents enacted discretionary appropriations for NWRS sub-activities from FY2015 to FY2024, in nominal dollars. **Figure 7** presents full-time employees (FTEs) associated with NWRS sub-activities from FY2014 to FY2023.

**Figure 6. National Wildlife Refuge System Discretionary Appropriations by Sub-Activity, FY2015-FY2024**  
(in nominal dollars)



**Source:** CRS, from funding data presented in FWS budget justifications and enacted appropriations laws, FY2015-FY2024

<sup>94</sup> For example, the Great American Outdoors Act of 2020 (P.L. 116-152) provided up to \$95.0 million annually for five fiscal years for deferred maintenance (through the National Parks and Public Land Legacy Restoration Fund) within the NWRS. For more information on FWS appropriations, see CRS In Focus IF12638, *U.S. Fish and Wildlife Service: FY2025 Appropriations*, by Caitlin Keating-Bitonti; and CRS In Focus IF12540, *U.S. Fish and Wildlife Service: FY2024 Appropriations*, by Caitlin Keating-Bitonti and Carol Hardy Vincent.

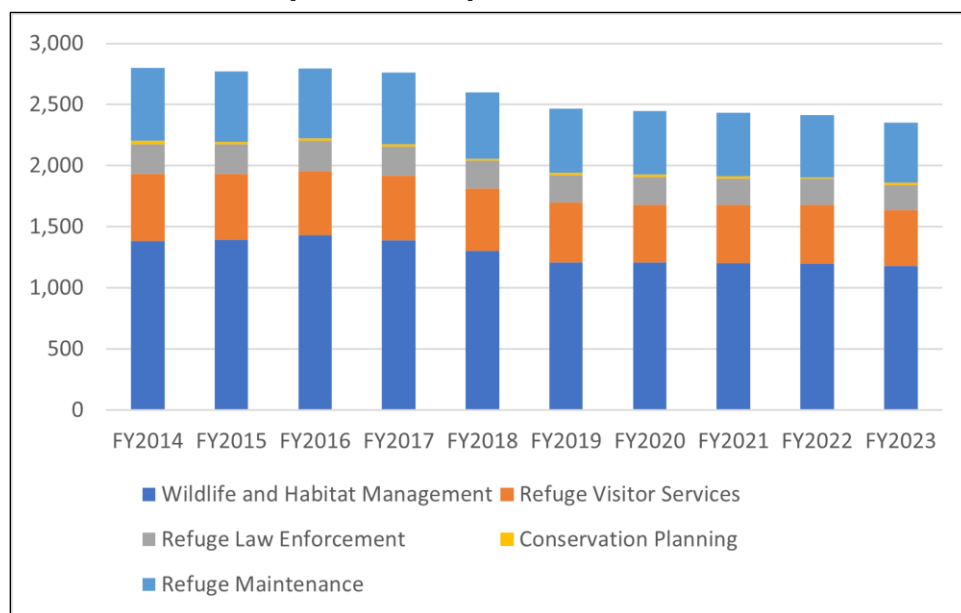
<sup>95</sup> Joint Explanatory Statement submitted by Sen. Murray to accompany H.R. 4366, the Consolidated Appropriations Act, 2024 (Division E-Department of the Interior, Environment, and Related Agencies Appropriations Act, 2024), *Congressional Record*, vol. 170, no. 39 (March 5, 2024), p. S1800.

<sup>96</sup> FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, pp. NWRS-12, RM-18.

**Notes:** Funding data represent enacted discretionary appropriations to the National Wildlife Refuge System funding line in annual Interior, Environment, and Related Agencies appropriations laws. Additional funding (discretionary, mandatory, supplemental, and disaster) is not reflected in these totals.

Congress has allocated funds for projects in specific refuge areas in appropriations laws and has used accompanying explanatory statements to direct FWS to conduct various activities within the NWRS, including land acquisition and maintenance projects.<sup>97</sup> Guidance in explanatory language has focused on various activities, including inventory and monitoring of wildlife populations, ecosystem restoration, and infrastructure improvements.<sup>98</sup>

**Figure 7. National Wildlife Refuge System Full-Time Employees (FTEs) by Sub-Activity, FY2014-FY2023**



**Source:** CRS, from data reported in FWS budget justifications from FY2015 to FY2025.

**Note:** Data for FY2023 FTEs were the most recent available.

## Considerations for Congress

### Funding for the National Wildlife Refuge System

A key issue that faces Congress is determining the annual level of discretionary appropriations for FWS. Members of Congress and stakeholders may hold different views on FWS's budget, with

<sup>97</sup> For example, the Joint Explanatory Statement for the Consolidated Appropriations Act, 2023 (P.L. 117-328), provided, "[FWS] is strongly encouraged to begin due diligence work on the accumulating backlog of parcels available [for acquisition] at Clarks River National Wildlife Refuge." Explanatory Statement Submitted by Sen. Leahy, Chair of the Senate Committee on Appropriations, Regarding H.R. 2617, Consolidated Appropriations Act, 2023 (Division G, Department of the Interior, Environment, and Related Agencies Appropriations Act, 2023), *Congressional Record*, vol. 168, no. 198-Book II (December 20, 2022), p. S8644.

<sup>98</sup> For example, the Joint Explanatory Statement accompanying the Consolidated Appropriations Act, 2023, noted, "[t]he Committees recognize [that FWS] provides resources for monarchs and other pollinators across multiple accounts, and this agreement provides no less than \$7,000,000 for the western monarch butterfly and other pollinators which includes \$4,000,000 within National Wildlife Refuge System, Inventory and Monitoring and \$3,000,000 in Science Support." *Ibid.*, p. S8646.

some favoring higher, lower, or level funding. Some Members have asserted that reductions in discretionary appropriations for agencies (including FWS) are necessary, citing fiscal constraints related to the state of the national debt and inflation levels.<sup>99</sup> For instance, several Members contended that the House-passed FY2025 Interior, Environment, and Related Agencies appropriations bill, which would have reduced funding for the NWRS by 4% from the FY2024 enacted level, “reins in unnecessary spending” and “meets programmatic needs while rightsizing agency funding levels.”<sup>100</sup>

Alternatively, FWS and some stakeholders have asserted that the agency does not have sufficient funding to effectively administer the NWRS.<sup>101</sup> The NWRS has expanded by hundreds of millions of acres over the past two decades, primarily from presidential designation of marine national monuments. As of September 30, 2005, the NWRS consisted of approximately 96 million acres;<sup>102</sup> as of December 2024, the NWRS included approximately 856 million acres, including approximately 704 million acres of marine national monuments.<sup>103</sup> In the Biden Administration’s FY2025 budget request, FWS noted, “Funds appropriated for Marine National Monuments have provided for basic regional stewardship of these tremendous marine resources for years, but [FWS] is unable to fully meet the challenges and opportunities facing marine ecosystems today.”<sup>104</sup> FWS has asserted that the biological resources and ecosystems in marine national monuments have been increasingly impacted by various threats, including climate change and marine debris.<sup>105</sup> It is unclear how costs associated with management of marine national monuments compare to costs in other areas of the NWRS.

Other stakeholders and some Members of Congress have contended that, when accounting for inflation, annual discretionary funding for the NWRS account has declined in recent years (see **Figure 8** for enacted NWRS discretionary appropriations, FY2015-FY2024, adjusted to 2023 dollars).<sup>106</sup> However, this funding does not necessarily account for all funding the NWRS receives. In some circumstances, FWS may use discretionary and mandatory appropriations outside of the NWRS account for activities or projects that occur in the NWRS.

Congress also has provided the NWRS with supplemental and disaster aid funding outside of annual Interior, Environment, and Related Agencies appropriations laws. For example, the budget

<sup>99</sup> “Simpson Remarks During Floor Consideration of H.R. 8998, The Interior, Environment, and Related Agencies Appropriations Act, 2025,” House Appropriations Committee, July 23, 2024, <https://appropriations.house.gov/news/remarks/simpson-remarks-during-floor-consideration-hr-8998-interior-environment-and-related-0>.

<sup>100</sup> House Appropriations Committee, “House Votes to Unleash American Production, Lower Energy Costs,” press release, July 24, 2024, <https://appropriations.house.gov/news/press-releases/house-votes-unleash-american-production-lower-energy-costs>.

<sup>101</sup> National Wildlife Refuge Association, “Funding Challenges of the National Wildlife Refuge System,” <https://www.refugeassociation.org/s/Funding-Challenges-of-the-National-Wildlife-Refuge-System.pdf>; The Wildlife Society, “National Wildlife Refuge System,” <https://wildlife.org/what-were-doing/refuge-system/>.

<sup>102</sup> The total reported was 96.2 million acres, including 1.9 million acres where FWS had secondary jurisdiction and 3.9 million acres protected by easements, agreements, or leases. FWS, *Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service as of September 20, 2005*, <https://babel.hathitrust.org/cgi/pt?id=uc1.c112261255&seq=189>.

<sup>103</sup> Communication between CRS and the FWS Office of Congressional and Legislative Affairs, December 18, 2024.

<sup>104</sup> *Ibid.*, p. NWRS-11.

<sup>105</sup> *Ibid.*

<sup>106</sup> National Wildlife Refuge Association, “Funding Challenges of the National Wildlife Refuge System”; Boone and Crockett Club, “National Wildlife Refuges Victim of Budget Shortfalls,” 2024, <https://www.boone-crockett.org/national-wildlife-refuges-victim-budget-shortfalls>; House Natural Resources Committee, Subcommittee on Water, Wildlife and Fisheries, *The National Wildlife Refuge System at Risk: Impacts of the U.S. Fish and Wildlife Service’s Proposed BIDEH Rule*, hearing, April 10, 2024, <https://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=415815>.

reconciliation measure commonly referred to as the Inflation Reduction Act of 2022 (P.L. 117-169) contained \$125.0 million for restoration and management activities addressing invasive species and the adverse effects of weather events on units of the NWRS and state wildlife management areas.<sup>107</sup> In the American Relief Act, 2025 (P.L. 118-158), Congress appropriated \$500.0 million to FWS for construction in the aftermath of recent natural disasters. These funds were to be made available for impacted FWS facilities, including those in the NWRS.<sup>108</sup> In some cases, Congress has allocated disaster aid to specific refuges. For instance, in the Consolidated Appropriations Act, 2023 (P.L. 117-328), Congress provided FWS with \$247.0 million for “necessary expenses related to the consequences of wildfires, hurricanes, and other natural disasters occurring in and prior to calendar year 2023, including winter storm damages at Midway Atoll National Wildlife Refuge.”<sup>109</sup>

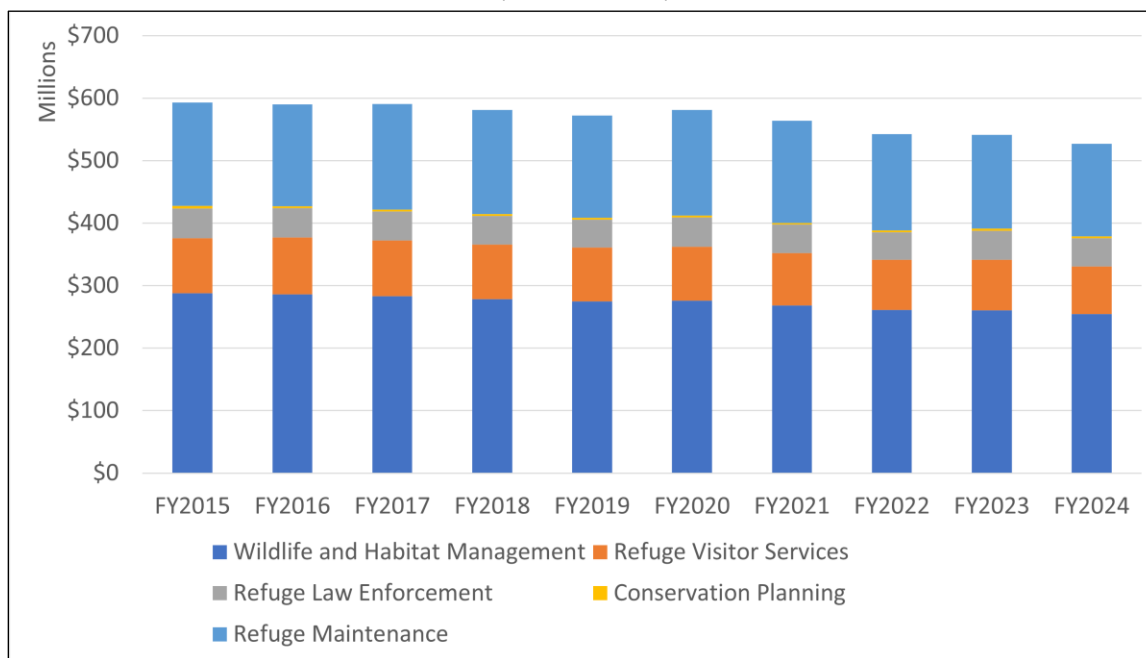
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<sup>107</sup> P.L. 117-169, Title V, Subtitle C, §60302, 136 Stat. 2079. Additionally, the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) provided FWS with \$165.0 million in supplemental funding in FY2009 for “deferred maintenance, construction, and capital improvement projects on national wildlife refuges and national fish hatcheries and high priority habitat restoration projects” (123 Stat. 167).

<sup>108</sup> Congress appropriated these funds to remain available until expended. The Biden Administration requested \$581.1 million for FWS disaster funding. See White House, “Additional Disaster Supplemental Funding Needs,” November 2024, p. 3, [https://www.whitehouse.gov/wp-content/uploads/2024/11/Technical-materials-regarding-additional-disaster-funding-needs\\_Nov25.pdf](https://www.whitehouse.gov/wp-content/uploads/2024/11/Technical-materials-regarding-additional-disaster-funding-needs_Nov25.pdf); National Wildlife Refuge Association, Defenders of Wildlife, and Coalition of Refuge Friends and Advocates, “NWRS FY2024 Disaster Funding Fact Sheet,” <https://refugeassociation.org/s/NWRS-FY24-Disaster-Funding-Fact-Sheet.pdf>. FWS has indicated that “most [NWRS] infrastructure is near or past its useful lifespan,” with an average asset age of 42.7 years. According to FWS, these assets are increasingly vulnerable to deterioration from environmental conditions. See Cynthia Martinez, “2024 State of the National Wildlife Refuge System: Where We Thrive,” FWS, December 18, 2024, p. 24, <https://www.fws.gov/sites/default/files/documents/2024-12/2024-12-17-state-of-the-nwrs-hwcc-martinez-final.pdf>.

<sup>109</sup> 136 Stat. 5215.

**Figure 8. National Wildlife Refuge System Discretionary Appropriations by Sub-Activity, FY2015-FY2024**  
(in 2023 dollars)



**Source:** CRS, from funding data presented in FWS budget justifications and enacted appropriations laws, FY2015-FY2025.

**Notes:** Adjustments for inflation use the GDP Chained Price Index from White House Office of Management and Budget, *Historical Tables, Table 10.1, Gross Domestic Product and Deflators Used in the Historical Tables—1940-2023*, <https://www.whitehouse.gov/omb/budget/historical-tables/>. Funding data represent enacted discretionary appropriations to the NWRS funding line in annual Interior, Environment, and Related Agencies appropriations laws. Additional funding (discretionary, mandatory, supplemental, and disaster) is not reflected in these totals.

## Visitor Services and Community Engagement

Challenges to FWS to fulfill the NWRS's conservation and recreation purposes are of interest to Congress. One focus is refuges' high visitation rates and their effects on wildlife and ecosystem resources in refuges. In this context, the sufficiency of FWS law enforcement and other agency staff has been under discussion.

In the National Wildlife Refuge System Centennial Act (NWRSCA; P.L. 106-408), Congress recognized "each year the [NWRS] provides millions of Americans with opportunities to participate in wildlife-dependent recreation, including hunting, fishing, and wildlife observation; public visitation to national wildlife refuges is growing; and ... it is essential that visitor centers and public use facilities be properly constructed, operated, and maintained."<sup>110</sup> Higher visitation rates historically have stressed aspects of FWS's operations in refuge units and can interfere with the primary purpose of the NWRS: the conservation of fish, wildlife, and plants.<sup>111</sup> For instance,

<sup>110</sup> 16 U.S.C. §668dd note.

<sup>111</sup> Testimony of Stephen Guertin, Deputy Director for Policy, U.S. Fish and Wildlife Service, in U.S. Congress, House Committee on Natural Resources, Subcommittee on Water, Wildlife, and Fisheries, *The National Wildlife Refuge System at Risk: Impacts of the U.S. Fish and Wildlife Service's Proposed BIDEH Rule*, hearings, April 10, 2024, 118<sup>th</sup> Cong., 2<sup>nd</sup> sess., <https://naturalresources.house.gov/calendar/eventsingle.aspx?EventID=415815> (hereinafter Guertin testimony, *The National Wildlife Refuge System at Risk*).

in the late 1990s, Congress found that increasing numbers of visitors at the NWRS contributed to a backlog of critical operation and maintenance needs. This development, in part, prompted the enactment of NWRSCA.<sup>112</sup> NWRSCA directed FWS to develop a long-term plan to improve the NWRS's public use programs and facilities to meet the increasing demand for wildlife-dependent recreation. It also required FWS to report on operation and maintenance needs in the agency's annual budget justifications.<sup>113</sup>

The NWRS received 68 million visits in FY2023.<sup>114</sup> According to FWS, visitation has increased by 47% since FY2011.<sup>115</sup> The numbers of refuges and FWS-managed acres also have increased over the same time period. The trend of higher annual visitation rates to refuges can be attributed in part to shifts in and expansion of activities associated with wildlife-dependent recreation.<sup>116</sup> For example, some studies have found a long-term decline in the number of hunters in the United States in recent decades, with contemporaneous increases in the number of anglers and wildlife observers, such as bird watchers.<sup>117</sup>

Congress annually determines funding levels for law enforcement and other FWS operations as part of its decisionmaking on agency appropriations. This process involves making funding determinations for many competing priorities in the Interior appropriations bill and for the federal government overall. Some Members of Congress and stakeholders have asserted that it may be necessary to decrease or maintain level funding for agencies given the nation's overall fiscal situation.<sup>118</sup>

Other stakeholders and FWS have identified long-term staffing shortages as an impediment to operation of the NWRS and effective visitor services.<sup>119</sup> The number of FTEs in the NWRS declined from 2,800 in FY2014 to 2,353 in FY2023 (see **Figure 7** for FTEs by sub-activity from FY2014 to FY2023).<sup>120</sup> In congressional testimony related to FWS's FY2025 budget request, the FWS director stated, "without adequate staffing, our ability to safely manage and welcome

<sup>112</sup> P.L. 106-408; 16 U.S.C. §668dd note.

<sup>113</sup> P.L. 106-408, §304; 16 U.S.C. §668dd note.

<sup>114</sup> Guertin testimony, *The National Wildlife Refuge System at Risk*.

<sup>115</sup> Ibid.; Cynthia Martinez, "2024 State of the National Wildlife Refuge System: Where We Thrive," FWS, December 18, 2024, pp. 13, 19; Testimony of Martha Williams, FWS Director, in U.S. Congress, Senate Committee on Environment and Public Works, *The U.S. Fish and Wildlife Service's Proposed Fiscal Year 2024 Budget*, hearings, 118<sup>th</sup> Congress, 1<sup>st</sup> sess., May 16, 2023, S.Hrg. 118-180, <https://www.govinfo.gov/content/pkg/CHRG-118shrg54321/pdf/CHRG-118shrg54321.pdf> (hereinafter cited as S.Hrg. 118-180); and National Wildlife Refuge Association, "The National Wildlife Refuge System Staffing Crisis," <https://www.refugeassociation.org/the-refuge-staffing-crisis>.

<sup>116</sup> FWS, *2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, October 2018, <https://www.census.gov/content/dam/Census/library/publications/2018/demo/fhw16-nat.pdf>.

<sup>117</sup> For example, *ibid.* and Lincoln R. Larson et al., "Exploring the Social Habitat for Hunting: Toward a Comprehensive Framework for Understanding Hunter Recruitment and Retention," *Human Dimensions of Wildlife*, vol. 19, no. 2 (2014), pp. 105-122, <https://doi.org/10.1080/10871209.2014.850126>.

<sup>118</sup> "Simpson Remarks During Floor Consideration of H.R. 8998, The Interior, Environment, and Related Agencies Appropriations Act, 2025," House Appropriations Committee, July 23, 2024, <https://appropriations.house.gov/news/remarks/simpson-remarks-during-floor-consideration-hr-8998-interior-environment-and-related-0>.

<sup>119</sup> Testimony of Martha Williams in S.Hrg. 118-180, pp. 7, 10; National Wildlife Refuge Association, "Funding Challenges of the National Wildlife Refuge System."

<sup>120</sup> FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-1; FWS, *Budget Justification and Performance Information: Fiscal Year 2013*, p. NWR-1. According to FWS, the number of volunteer full time-employee (FTE) hours has also declined over the same time period (from 681 in FY2014 to 423 in FY2023). See Cynthia Martinez, "2024 State of the National Wildlife Refuge System: Where We Thrive," FWS, December 18, 2024, p. 19.



visitors is strained.”<sup>121</sup> In FY2023, FWS had 205 full-time law enforcement officers to patrol the NWRS.<sup>122</sup> According to FWS, the number of NWRS law enforcement officers has shrunk by 28% over the last 15 years, the highest reduction among the DOI’s bureaus.<sup>123</sup> However, FWS receives law enforcement support from other federal, state, and local agencies through cooperative agreements; it is unclear if this level of support changed over the same period.<sup>124</sup>

## Climate Change in the National Wildlife Refuge System

Many scientists have noted that the effects from climate change can affect the NWRS and could pose challenges to managing refuge units.<sup>125</sup> Climate change can directly affect NWRS units by altering habitat (e.g., changing species composition and ecosystem properties due to sea-level rise or longer wildfire seasons), changing water regimes due to drought, and changing landscapes due to changes in the frequency or magnitude of extreme weather events such as hurricanes.<sup>126</sup> Climate change also may exacerbate existing threats, such as by increasing the spread of nuisance or nonnative species.<sup>127</sup> Climate change may increase the challenge of determining how to manage the NWRS to help species and ecosystems cope with environmental changes.<sup>128</sup>

FWS has considered implementing policy changes to further incorporate climate change mitigation and adaptation in the NWRS. In February 2024, FWS proposed to revise the agency’s existing Biological Integrity, Diversity, and Environmental Health (BIDEH) policy and promulgate a new rule to guide management of the NWRS. According to FWS, this proposal sought to provide refuge managers with a “framework by which to evaluate and implement

<sup>121</sup> Testimony of Martha Williams, Director, U.S. Fish and Wildlife Service, Department of the Interior, in U.S. Congress, Senate Committee on Environment and Public Works, *The U.S. Fish and Wildlife Service’s FY 2025 Budget Request*, hearings, June 12, 2024, 118<sup>th</sup> Cong., 2<sup>nd</sup> sess., <https://www.fws.gov/testimony/us-fish-and-wildlife-services-proposed-fiscal-year-2025-budget>.

<sup>122</sup> FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-1.

<sup>123</sup> Further, FWS expects 22% of its refuge law enforcement workforce to retire within the next five years “due to the mandatory retirement of law enforcement officers at the age of 57.” FWS, *Budget Justification and Performance Information: Fiscal Year 2025*, p. NWRS-29. The Secretary of the Interior (or designee) may approve exceptions to the mandatory retirement requirement until the age of 60, if it is judged to be in the public interest. For more information on this requirement, see DOI, “Maximum Entry Age Requirements and Mandatory Retirement for Law Enforcement Officers and Firefighters,” Personnel Bulletin No. 12-16, February 22, 2013, <https://www.doi.gov/sites/doi.gov/files/elips/documents/Maximum%20Entry%20Age%20Requirements%20and%20Mandatory%20Retirement%20for%20Law%20Enforcement%20Officers%20and%20Firefighters.pdf>.

<sup>124</sup> FWS, “Law Enforcement Memorandums of Understanding,” 446 FW 1, in *Service Manual*, November 22, 2005, <https://www.fws.gov/policy-library/e1446fw1>; FWS, “Coordination and Cooperative Work with State Fish and Wildlife Agencies,” 601 FW 7, in *Service Manual*, August 25, 2008, <https://www.fws.gov/policy-library/601fw7>.

<sup>125</sup> FWS, “Examination of Climate-Related Threats to Water Resources in the National Wildlife Refuge System,” November 2023, p. 3, <https://www.fws.gov/sites/default/files/documents/FWS%20WRIA%20Climate%20Focused%20Threats%20and%20Needs%20Report%20Final%20Section%20508%20compliant.pdf>. For information on climate change adaptation strategies in DOI, see CRS Report R46694, *Climate Change Adaptation: Department of the Interior*, coordinated by Mark K. DeSantis.

<sup>126</sup> FWS, “Climate Change Impacts Across the Refuge System,” <https://www.fws.gov/story/climate-change-impacts>.

<sup>127</sup> Fred A. Johnson et al., “Global Change and Conservation Triage on National Wildlife Refuges,” *Ecology and Society*, vol. 20, no. 4 (2015), pp. 14-21, <https://www.jstor.org/stable/26270310>; Frank J. Rahel, Britta Bierwagen, and Yoshinori Taniguchi, “Managing Aquatic Species of Conservation Concern in the Face of Climate Change and Invasive Species,” *Conservation Biology*, vol. 22, no. 3 (2008), pp. 551-561, <https://doi.org/10.1111/j.1523-1739.2008.00953.x>; Brad Griffith et al., “Climate Change Adaptation for the U.S. National Wildlife Refuge System,” *Environmental Management*, vol. 44 (2009), pp. 1043-1052 (see p. 1045), <https://link.springer.com/article/10.1007/s00267-009-9323-7>.

<sup>128</sup> FWS, “Climate Change Impacts Across the Refuge System,” <https://www.fws.gov/story/climate-change-impacts>.



management actions to protect vulnerable species, restore and connect habitats, promote natural processes, sustain vital ecological functions, incorporate Indigenous Knowledge, and increase resilience to climate change.”<sup>129</sup>

The proposed rule would have included a management directive to incorporate climate change mitigation and adaptation strategies when necessary to fulfill refuge purposes and seek to ensure BIDEH in refuges. It also would have set a general prohibition on certain management practices, including predator and mosquito control; use of genetically engineered organisms; use of pesticides; and the use of agricultural practices, unless deemed necessary to meet statutory requirements, fulfill refuge purposes, and ensure BIDEH.<sup>130</sup>

Some Members of Congress voiced opposition to the proposed rule, citing concerns that it may restrict refuge managers’ ability to use certain management practices (e.g., predator control, pesticide use); restrict certain agricultural uses (e.g., grazing) and recreational uses (e.g., hunting, fishing) in the NWRS; and create additional regulatory hurdles for management actions.<sup>131</sup> To this effect, Congress considered bills to prohibit FWS from promulgating the rule.<sup>132</sup> At the same time, some Members articulated support for the proposed rule, asserting it would better clarify refuge management guidelines and standards.<sup>133</sup> On December 19, 2024, FWS withdrew the proposed rule, citing the large number and complexity of public comments received and requests for further public input.<sup>134</sup> Congress may choose to further debate the adequacy and nature of management regimes for the NWRS.

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<sup>129</sup> FWS, “U.S. Fish and Wildlife Service Announces Proposals to Update Framework for Biological Integrity, Diversity, and Environmental Health of the National Wildlife Refuge System,” press release, February 1, 2024, <https://www.fws.gov/press-release/2024-02/proposed-updates-framework-biological-integrity-diversity-and-environmental>; FWS, “National Wildlife Refuge System; Biological Integrity, Diversity, and Environmental Health,” 89 *Federal Register* 7345, February 2, 2024, <https://www.federalregister.gov/d/2024-02076>. The authority for the proposed policy revision and new rule is the National Wildlife Refuge System Improvement Act of 1997, which requires the Secretary of the Interior, acting through FWS, to ensure the biological integrity, diversity, and environmental health of the NWRS are maintained.

<sup>130</sup> Guertin testimony, *The National Wildlife Refuge System at Risk*.

<sup>131</sup> See statements in *The National Wildlife Refuge System at Risk*.

<sup>132</sup> On July 24, 2024, the House passed H.R. 8998 (Department of the Interior, Environment, and Related Agencies Appropriations Act, 2025) containing a provision (§141) to prohibit the use of funding to finalize or implement the proposed rule. Another proposal, H.R. 8632 (BIOSAFE Act of 2024; 118<sup>th</sup> Congress), would have required the Secretary of the Interior to withdraw the proposed rule.

<sup>133</sup> *The National Wildlife Refuge System at Risk*.

<sup>134</sup> FWS, “National Wildlife Refuge System; Biological Integrity, Diversity, and Environmental Health,” 89 *Federal Register* 103761, December 19, 2024, <https://www.federalregister.gov/d/2024-29236>.

## Appendix. Number and Acreage of National Wildlife Refuges by State and U.S. Territory

**Table A-1** provides the total number and acreage of national wildlife refuges by state and U.S. territory. The table includes units of the National Wildlife Refuge System that are designated as National Wildlife Refuges, excluding other designations such as “waterfowl production areas,” “coordination areas,” and “national monuments.” The table presents data from September 30, 2022 (the most recent publicly available). Data are subject to change under a variety of circumstances (including modification of refuges or resurveys). Therefore, the numbers presented below should not be considered exact.

**Table A-1. Total Number and Acreage of National Wildlife Refuges by State and U.S. Territory**

State/Territory <sup>a</sup>	Number of Refuges	Acres <sup>c</sup>
Alabama	11	73,207
Alaska	16	76,802,497
American Samoa	1	1,613
Arizona	9	1,736,983
Arkansas	10	393,804
California	39	505,179
Colorado	11	359,155
Connecticut	3	2,275
Delaware	2	26,496
Florida	31	1,009,690
Georgia	8	497,425
Guam	1	2,3674
Hawaii	10	310,585
Idaho	6	90,979
Illinois	12	131,502
Indiana	3	70,266
Iowa	5	89,650
Kansas	5	68,939
Kentucky	4	12,588
Louisiana	23	609,057
Maine	10	74,808
Maryland	7	53,835
Massachusetts	10	23,466
Michigan	8	126,044
Minnesota	11	252,262
Mississippi	13	229,099

State/Territory <sup>a</sup>	Number of Refuges	Acres <sup>c</sup>
Missouri	7	73,907
Montana	24	1,396,895
Nebraska	7	155,393
Nevada	9	2,359,812
New Hampshire	3	37,719
New Jersey	5	80,358
New Mexico	9	389,224
New York	10	32,476
North Carolina	12	436,832
North Dakota	66	438,667
Ohio	3	10,591
Oklahoma	9	174,618
Oregon	22	590,754
Pennsylvania	3	15,554
Puerto Rico	5	22,584
Rhode Island	5	2,577
South Carolina	7	193,022
South Dakota	5	137,692
Tennessee	7	121,720
Texas	20	676,449
U.S. Minor Outlying Islands	11	54,880,211
U.S. Virgin Islands	3	590
Utah	4	113,239
Vermont	1	34,385
Virginia	12	137,830
Washington	20	331,882
West Virginia	1	19,712
Wisconsin	6	172,159
Wyoming	8	89,231
<b>Total</b>	<b>573</b>	<b>146,701,161</b>

**Source:** Congressional Research Service (CRS) from U.S. Fish and Wildlife Service (FWS), *Statistical Data Tables for Fish & Wildlife Service Lands (as of 9/30/2022)*, pp. 10-30; communication between CRS and FWS, Office of Congressional and Legislative Affairs, December 18, 2024.

**Notes:**

- a. There are no refuges in Washington, DC. CRS updated the FY2022 numbers to reflect the establishment of five new refuges in Florida, Maryland, Oregon, Tennessee, and Wyoming. CRS used data from the FWS “National Wildlife Refuge System, Simplified National Realty Tracts” database (<https://gis-fws.opendata.arcgis.com/datasets/fws::fws-national-realty-tracts-simplified/explore>) to identify acreage acquired at the five new refuges. For more information on these refuges, see Department of the Interior (DOI), “Interior Department Establishes Everglades to Gulf Conservation Area to Conserve Habitat,

- b. Protect Wildlife and Support Recreation,” press release, March 11, 2024, <https://www.doi.gov/pressreleases/interior-department-establishes-everglades-gulf-conservation-area-protect-wildlife-support-recreation>; FWS, “Secretary Haaland Establishes Southern Maryland Woodlands National Wildlife Refuge,” press release, December 16, 2024, <https://www.fws.gov/press-release/2024-12/secretary-haaland-establishes-southern-maryland-woodlands-national-wildlife>; FWS, “Interior Establishes Willamette Valley Conservation Area in Oregon,” press release, August 13, 2024, <https://www.fws.gov/press-release/2024-08/interior-establishes-willamette-valley-conservation-area-oregon>; and DOI, “Interior Department Announces Establishment of Two New National Wildlife Refuges in Wyoming and Tennessee,” press release, October 10, 2023, <https://www.doi.gov/pressreleases/interior-department-announces-establishment-two-new-national-wildlife-refuges-wyoming>.
- c. Values are rounded to the nearest acre. This column includes areas that FWS owns in fee or holds interests (e.g., easements and leases). It also includes areas over which FWS has primary or secondary management responsibility.

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