

III. Implementation Strategies

The Migratory Bird Program will achieve its vision, priorities, and goals by implementing strategies in the following five areas of responsibility:

- A. Population Monitoring, Assessment, and Management**
- B. Habitat Conservation**
- C. Permits and Regulations**
- D. Consultation, Cooperation, Communication**
- E. Recreation**

In addition, other programs of the Service, including the National Wildlife Refuge System, Endangered Species, International Affairs, and Fisheries and Habitat Conservation programs are committed to helping achieve Migratory Bird Program goals through their own strategic contributions (see Appendix 6).

A. Population Monitoring, Assessment, and Management

Information on the population status and trends of migratory birds is required to comply with mandates in the various migratory bird treaties and other legislation (e.g., the Migratory Bird Treaty Act and the Fish and Wildlife Conservation Act). Because most migratory birds range widely over their annual cycles, an accurate assessment of status, including distribution, population abundance, and trends, requires long-term monitoring over broad geographic scales — regional, national, continental, and range-wide. Monitoring is also needed to evaluate the effects of management and conservation activities and human and environmental factors on bird demographics and distribution. The Service, other federal and state agencies, and non-governmental organizations conduct surveys that greatly contribute to understanding bird populations. The Service has the added responsibility for providing an international perspective to migratory bird assessment and management.

The Migratory Bird Program has come close to fulfilling this responsibility for some species of waterfowl, a group for which broad-scale monitoring programs have been in place for many years. However, information is insufficient for many other migratory birds, hindering the Service's

ability to clearly determine population status and reasonably predict the outcome of management and conservation activities and environmental changes. With its partners, the Service will implement, coordinate, and facilitate robust, sustainable range-wide surveys, and develop and improve monitoring objectives and protocols necessary to assess migratory bird abundances, distributions, trends, causes of population conditions, and responses to management and conservation activities.

Strategies for Monitoring:

- A-1: Establish clear, quantifiable, and measurable objectives for all survey and monitoring projects undertaken or funded by the Migratory Bird Program.
- A-2: Complete a review of all Service supported migratory bird surveys as a first step toward identifying gaps, reducing redundancy, and increasing efficiency.
- A-3: Evaluate the design and operation of Service supported migratory bird surveys relative to objectives, and institute improvements or discontinue surveys where appropriate.
- A-4: Facilitate periodic, independent evaluations of survey objectives, designs, operations, data management, and analyses and reporting of survey and assessment information, including critiques of data coverage and quality, for all Service supported migratory bird surveys.
- A-5: Work with partners to develop and implement statistically rigorous surveys and range-wide monitoring programs for Birds of Management Concern.
- A-6: Establish formal, periodic consultation processes with the states, flyway councils, and other partners to determine regional and national priority survey, monitoring, and management issues for game and nongame migratory birds.
- A-7: Provide private and public land managers with technical assistance in selecting and implementing appropriate bird survey and monitoring techniques.

Strategies for Analytical Support and Information Dissemination:

A-8: Increase capabilities for analytical support, including survey design, data storage and management, and analysis.

A-9: Create a dynamic, user-friendly information and communication system to provide universal access to survey data and analysis.

A-10: Report regularly on the status and trends of bird populations based on information derived from monitoring and research programs.

Strategies for Research:

A-11: Support research aimed at improving the effectiveness and efficiency of monitoring protocols, increasing power, precision and accuracy of analyses, and expanding the availability and utility of data.

A-12: Support range-wide research on factors that directly affect migratory bird populations, such as disease, predation, competition, brood parasitism, environmental factors, and human-caused mortality.

A-13: Support range-wide research on factors that affect bird populations through reducing habitat quality and quantity, such as invasive species, agricultural and other land use practices, and habitat fragmentation.

A-14: Evaluate the effectiveness of management actions and develop or refine best management practices for migratory birds using an adaptive management framework.

Strategies for Population Management:

A-15: Work with other nations, flyways, and bird conservation initiatives to develop explicit, unambiguous management objectives for Birds of Management Concern.

A-16: Within an adaptive management framework, undertake conservation and management actions, consistent with bird conservation plans, to achieve desired abundance levels or to reintroduce desired species.

A-17: Provide federal land management agencies, states, and other land and water management partners with technical support necessary to undertake conservation and management actions consistent with bird conservation plans.

A-18: Periodically review and adjust desired population levels and objectives based on the results of research, monitoring, and assessment.

A-19: Based on valid scientific data, reduce to acceptable levels the abundances of migratory bird species that create economic and ecological damage and human health and safety concerns.

A-20: Identify and implement actions to respond to threats to migratory birds from diseases and invasive species, including alien wildlife.

A-21: Support efforts by the USGS National Wildlife Health Center and other partners to identify, study, and address traditional and emerging bird disease problems such as botulism, avian cholera, Newcastle disease, and West Nile virus.

A-22: Implement and improve surveys to measure subsistence harvest of migratory birds in Alaska, and conduct appropriate analyses to assess likely population impacts of that harvest.



The Swainson's Hawk migrates over 6,000 miles (10,000 km) every spring and fall between its North American breeding grounds and South American wintering grounds. It is threatened by habitat destruction, a reduction in its prey, and pesticide use. /Karen Hollingsworth

B. Habitat Conservation

Protection, restoration, and enhancement of terrestrial, aquatic and marine habitats, landscapes, and seascapes are crucial to restore and sustain migratory bird populations. Since its inception, the Service has placed a premium on providing high quality habitats for migratory birds, and traditionally the National Wildlife Refuge System and the Partners for Fish and Wildlife Programs have been the cornerstones of this effort. In addition, the Migratory Bird Program administers national and international programs that implement the North American Wetlands Conservation Act, Neotropical Migratory Bird Conservation Act, and the Migratory Bird Hunting and Conservation Stamp Act. The Migratory Bird Program also supports habitat joint ventures, which are regional, landscape-oriented public-private partnerships dedicated to conserving habitat for birds. Together, these programs serve as catalysts for habitat conservation and management throughout the hemisphere. The contribution of private landowners, state and other federal agencies, tribes, non-profit organizations, corporations, and academia to bird habitat conservation is essential to meet migratory bird goals and objectives and, through these programs, the Service works closely with these partners.

Despite the great successes of these and other Service habitat programs, many migratory bird habitats remain imperiled. The Migratory Bird Program will continue to develop national and international partnerships to improve and expand efforts to address these threats. Integral to this effort is the development of scientific tools such as modeling and geographic information systems that integrate information on habitat and landscape conditions with demographic data to produce biologically-based landscape designs that meet the needs of multiple species. By developing these tools and increasing the technical assistance capabilities of the Migratory Bird Program, the Service and its partners can more effectively protect, restore, and manage sustainable habitats for migratory birds.

Strategies for Biological Planning:

B-1: Work with partners range-wide to establish habitat conservation objectives for Birds of Management Concern through existing bird conservation planning efforts.

B-2: Work with partners range-wide to integrate migratory bird population and habitat data using biologically-based geospatial planning tools to create sustainable landscape designs for Birds of Management Concern.

Strategies for Conservation Delivery:

B-3: Protect, restore and manage priority terrestrial, aquatic, and marine habitats for birds through the North American Wetlands Conservation Act, Neotropical Migratory Bird Conservation Act, Migratory Bird Hunting and Conservation Stamp Act, and other appropriate funding opportunities.

B-4: Give priority in grant and other funding programs to projects that are designed to achieve population and habitat objectives stated in bird conservation plans and sustainable landscape designs for Birds of Management Concern.

B-5: Participate in promotion, delivery, and evaluation of non-Service habitat conservation programs (e.g., U.S. Department of Agriculture's Conservation Reserve and Wetland Reserve Program and the National Oceanic and Atmospheric Administration's National Marine Sanctuary Program) that have the potential to affect the quantity and quality of migratory bird habitat.

Strategies for Technical Assistance:

B-6: Coordinate with other Service habitat programs (e.g., Endangered Species, National Wildlife Refuge System, and Fisheries and Habitat Conservation Programs) by communicating bird population and habitat requirements to maximize the benefits of these programs to migratory birds, as required by Executive Order 13186 (see Appendix 6).

B-7: Provide technical assistance to Service field stations and private and public partners on the most effective protection, restoration and management practices for migratory bird habitats.

B-8: Coordinate with public and private partners that manage resources, such as agricultural land, timber, grasslands, fisheries, and energy, by communicating migratory bird requirements to minimize the adverse impacts and maximize the benefits of these programs to migratory birds.

Strategies for Habitat Assessment:

B-9: Work with partners to track changes in migratory bird habitats across the entire ranges of Birds of Management Concern.

B-10: Work with partners to coordinate population monitoring with habitat monitoring, where necessary, to develop sustainable landscape designs for Birds of Management Concern.

B-11: Promote research to better assess landscape changes and their impacts on Birds of Management Concern at local, regional, and continental scales.

C. Permits and Regulations

Under the authorities of the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, the Service regulates the take of migratory birds for hunting, rehabilitation, preventing depredation, scientific collection, religious use, and other purposes. Regulating take is a primary and traditional Service activity that uses monitoring and assessment information to manage migratory bird populations. Overall, the Service's challenge is to balance the take of migratory birds with international, national, and regional commitments to conserve them.

Each year the Service conducts a well-defined cycle of procedures and events, including public consultation, which results in rules governing annual sport and subsistence harvest for migratory game bird species. For other direct take activities, the Migratory Bird Program issues thousands of permits that regulate the number and species of birds that can be taken. Permits provide a means to balance use and conservation, and allow the Service to monitor activities to determine how they affect migratory birds. The Service will continue to improve the hunting and permits regulations processes to better serve migratory birds and the public. For example, through Adaptive Harvest Management the Service applies the best available science to provide hunting opportunities consistent with established harvest objectives, while considering the status and long-term conservation of migratory game birds. The Service's Law Enforcement program also plays a critical role in ensuring that migratory bird hunting and other forms of take are conducted within the bounds of the law.

The Migratory Bird Program also works with other Service programs in the review, consultation, and permitting process for federal land management activities and for private activities requiring federal permits and licenses. These programs work together to conserve wildlife in accordance with laws, while streamlining the permitting process to help the public.

Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds* directs federal agencies whose actions have a measurable negative impact on migratory bird populations to develop Memoranda of Understanding with the Service to promote the conservation of migratory birds. This Order will have important implications to migratory bird conservation in the coming years.

Strategies for Permits:

C-1: Implement actions outlined in the Service's document *Leaving a Lasting Legacy: Permits as a Conservation Tool* to streamline the migratory bird permit program, provide better customer service, and support conservation (see Appendix 7).

C-2: In cooperation with partners, develop and implement biologically sound permits, regulations, policies, and procedures to effectively manage and assess the take of migratory birds, while decreasing the administrative burden for permit applicants.

C-3: Implement the recommendations in the Service's Permits Workload Analysis to provide resources to meet customer needs.

Strategies for Hunting Regulations:

C-4: Continue to implement and improve an objective, streamlined process for establishing annual hunting regulations and strengthen the working relationships with flyway councils and individual states.

C-5: Enhance the use of Adaptive Harvest Management as an effective approach to managing migratory game bird harvests.

C-6: Continue to provide an effective forum for public review and comment during the development of annual hunting regulations.

C-7: Work with the Alaska Migratory Bird Co-management Council to provide for regulated spring and summer subsistence harvest of migratory birds consistent with bird conservation goals, remaining cognizant of the desires of other stakeholders and user-groups.

C-8: Work with Native American tribes to improve the process for establishing annual hunting regulations.

Strategies for Other Legal Compliance:

C-9: Develop and implement Memoranda of Understanding with other federal agencies to promote bird conservation under Executive Order 13186 through adoption of processes and measures that avoid or minimize the negative impacts of agency actions on migratory birds.

C-10: Work with the Service's Office of Law Enforcement and state and tribal law enforcement officials to ensure compliance with the laws and international conventions applicable to migratory birds.

D. Consultation, Cooperation, and Communication

The Migratory Bird Program works with partners throughout the ranges of migratory birds — at the local, state, regional, national, and international levels — to achieve a biologically based, landscape-oriented approach to migratory bird conservation. The Migratory Bird Program is committed to strengthening its tools of consultation, cooperation, and communication to increase and energize its partnerships. The Migratory Bird Program supports habitat joint ventures which are regional, landscape-oriented partnerships working to conserve habitat for birds in North America. Through species joint ventures the Migratory Bird Program cooperates with international partners to answer biological and ecological questions regarding individual waterfowl species or populations. The Service works closely with the flyway councils which deal with a variety of migratory bird management issues at the state, provincial, and flyway scales, including the development of hunting regulations.

The Migratory Bird Program serves as a focal point for developing and implementing regional, national, and continental bird conservation plans, including

the North American Waterfowl Management Plan, Partners in Flight Landbird Conservation Plans, the U.S. Shorebird Conservation Plan, the North American Waterbird Conservation Plan, and migratory game bird management plans for waterfowl, woodcock, and doves developed by the flyway councils. These plans present population and habitat goals for priority species and have been developed by coalitions of federal, state, and provincial agencies, tribal entities, foreign governments, non-governmental organizations, industry, academia, and private individuals.

The Service also supports the North American Bird Conservation Initiative (NABCI) which provides a forum for state, regional, national, and international organizations and bird initiatives to coordinate their efforts to increase resources and expand partnerships to deliver integrated bird conservation. NABCI is facilitating partners' efforts to integrate bird conservation plans, develop comprehensive, sustainable landscape designs for birds, and carry out all-bird conservation through regional partnerships, such as joint ventures. For example, NABCI developed and approved Bird Conservation Regions (BCRs) as ecological units within which planning and implementation can occur. The Service will continue to support partnerships at every scale that advance an integrated and comprehensive approach to bird conservation.

Strategies for Coordination:

D-1: Actively support and participate with partners in developing, implementing, and evaluating bird conservation plans at appropriate geographic scales.

D-2: Coordinate bird conservation planning efforts with other ongoing planning efforts, including State Comprehensive Wildlife Conservation Plans.

D-3: Work with partner agencies and organizations to obtain additional funding for all-bird conservation and to leverage resources towards agreed upon goals identified in bird conservation plans and sustainable landscape designs.

D-4: Coordinate bird planning and implementation efforts with Canada, Mexico, Central and South America, the Caribbean, and other nations that share migratory birds.

D-5: Support NABCI efforts to facilitate and coordinate integrated bird conservation planning and implementation at the international, national, regional, and state levels.

D-6: Expand existing or create new habitat joint ventures to encompass all bird habitats (terrestrial, aquatic, and marine) in North America, and initiate and strengthen similar partnerships beyond North America.

D-7: Provide technical assistance to partner agencies and organizations through federal project reviews and other means to integrate migratory bird conservation objectives into their project planning and implementation.

D-8: Coordinate and communicate with the USGS Biological Resources Discipline to obtain directed research and development information and technical assistance on migratory birds and their habitats and factors affecting them.

D-9: Strengthen range-wide migratory bird management by improving international partnerships among Migratory Bird Treaty Act nations and other nations within flyways used by migratory birds.

Strategies for Consultation and Technical Assistance:

D-10: Assist other nations and U.S. partners in assessing the status of migratory birds, identifying important habitats, and developing strategies to conserve shared resources through national and international grant programs and direct technical assistance.

D-11: Provide technical assistance to other Service programs (e.g., National Wildlife Refuges, International Conservation, Endangered Species and Fisheries and Habitat Conservation) to increase their ability to meet trust responsibilities for migratory bird conservation.

D-12: Provide information to private landowners to assist them in protecting and restoring bird populations and habitats on a voluntary basis.

D-13: Provide technical assistance to industry on ways to avoid or minimize impacts of communications towers, wind turbines, fishing

bycatch, and other hazards to migratory birds and recognize positive industry efforts that result in increased conservation (e.g., communications industry).

Strategies for Communications and Outreach:

D-14: Review and expand existing and develop new products, programs, and venues that increase awareness of the value of conserving migratory birds and their habitats (e.g., International Migratory Bird Day and Urban Conservation Treaties for Migratory Birds).

D-15: Promote and expand existing programs that increase awareness of the value of comprehensive, integrated approaches to bird conservation that conserve all priority bird species across geopolitical boundaries, taxonomic groups, and sociocultural divides.

D-16: Increase sales of the Migratory Bird Hunting and Conservation Stamp (i.e., Federal Duck Stamp) by expanding public awareness of this program, beyond its traditional hunting constituency, as the most direct way for citizens to protect migratory bird habitat.

D-17: Increase student and school participation in the Junior Duck Stamp Program and strengthen its educational content by incorporating its curriculum into national and state science and art education standards.

D-18: Increase involvement of organizations and individuals representing ethnic and culturally diverse communities in bird conservation efforts.

D-19: Take actions to ensure the nation's students are knowledgeable about the conservation needs of migratory birds and to instill stewardship of natural resources by promoting awareness, appreciation, and knowledge of birds through such programs as Shorebird Sister Schools and Flying WILD, which is sponsored by the President's Council for Environmental Education.

E. Recreation

Millions of Americans enjoy observing, photographing, and hunting migratory birds in their natural habitats. The Service is committed to providing U.S. citizens with quality outdoor recreational opportunities involving migratory birds by conserving these species and their habitats. By working with the National Wildlife Refuge System, the Migratory Bird Program is helping to improve migratory bird recreation on national wildlife refuge and other Service lands. Through other partnerships, the Migratory Bird Program will promote and improve bird-related recreational opportunities for people on other public and private lands.

Providing the public with opportunities for quality recreation promotes a strong conservation ethic. By participating in quality recreation involving experiential education (e.g., nature studies and work on conservation projects) and individual reflection (e.g., birdwatching and hunting) citizens develop a deep sense of wonder and appreciation for the natural world as well as a sense of responsibility for protecting and restoring the earth's community of life for future generations.

Strategies for Improving Recreational Opportunities:

E-1: Work with the National Wildlife Refuge System to actively implement the provisions of the Refuge Improvement Act to improve the quantity and quality of migratory bird-related recreation on National Wildlife Refuge System lands, as compatible with refuge goals and authorizing legislation.

E-2: Actively support state efforts to provide bird-related recreation through the Service's Federal Assistance programs, including the State Wildlife Grants program.

E-3: With partners, identify and implement projects and programs to improve the quality of hunting, birdwatching, and other recreational opportunities related to migratory birds.

Strategies for Increasing Public Awareness:

E-4: With partners, identify and promote recreational opportunities associated with migratory

birds, such as hunting and birdwatching.

E-5: Open dialogs with federal, regional, state and local managers of land and water resources to encourage recreational opportunities related to birds.

E-6: Work with birding industries (e.g., optics manufacturers and birdseed companies), rehabilitators, and other stakeholders to create new partnerships and venues that increase public awareness of non-consumptive bird recreation and bird conservation (e.g., birding festivals, trails, and conferences).

E-7: Maintain and expand existing conservation partnerships with hunters and the hunting industry to increase awareness of hunting opportunities and the importance of bird conservation.



U.S. Fish and Wildlife Service

When we see land as a community to which we belong, we may begin to use it with love and respect.

Aldo Leopold



Megan Durham/U.S. Fish and Wildlife Service