



Chapter 1

Introduction to Maryland's State Wildlife Action Plan





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Introduction

Under a 10-year mandated revision from the U.S. Fish and Wildlife Service (USFWS), the Maryland Department of Natural Resources (MD DNR) and its partners have updated Maryland’s State Wildlife Action Plan (SWAP or Plan) for the 2025–2035 period. Required of all fifty states, the District of Columbia, and five U.S. territories, SWAPs outline strategic conservation approaches for species and habitats in greatest need of conservation. The overall goal of Maryland’s SWAP is to keep common species common—in other words, to keep species from becoming listed as rare, threatened, or endangered, as well as work to recover already listed species so that they no longer require legal protection.

A SWAP serves two main purposes. First, it acts as a non-regulatory, guiding document for a state’s conservation efforts for the next 10 years. Second, an updated SWAP is a condition to receive financial support (i.e., State Wildlife Grants) from the U.S. Department of the Interior, which funds wildlife management at the state level. These grants are one of the main sources of funding for nongame species management in Maryland and allow for the continuation and improvement of the protection and management of Species of Greatest Conservation Need (SGCN) and their habitats. The revision of the SWAP is also funded by this grant program.

While the revision effort for Maryland’s SWAP was spearheaded by MD DNR, it is a *statewide* plan, meaning that it is intended to be a strategy that all conservation agencies and organizations in the state can use as we work towards common conservation goals. The Maryland SWAP represents a shared vision and a strategy that has been developed by working with state, federal, and local organizations that partner with MD DNR and each other for wildlife conservation. Through this effort, MD DNR and partners identified SGCN, Key Wildlife Habitats (KWHs), conservation priorities, threats, and conservation actions for species and their associated habitats. SGCN include plants and animals, both aquatic and terrestrial, that are at risk or are already declining in Maryland; KWHs include the most critical habitats that support these species.

Although SWAPs are created at the state level, species, habitats, and the threats against them are rarely contained by state boundaries. Conservation agencies in the Northeast region have made an effort to coordinate their SWAPs in the interest of strengthening conservation work throughout the region. The driving force behind this effort has been the Northeast Association of Fish and Wildlife Agencies (NEAFWA) and its Fish and Wildlife Diversity Technical Committee (NEFWDTC). NEAFWA and NEFWDTC have worked to provide a shared framework, set of terminology, and regional perspective for various aspects of the SWAP. Therefore, in addition to Maryland-specific actions, this Plan contains a multitude of references to regional efforts and the guiding documents provided by NEAFWA.

The 2025 SWAP revision is the third version of this Plan. Maryland’s first plan, the Wildlife Diversity Conservation Plan, was completed in 2005; its first major update, the 2015 Maryland State Wildlife Action Plan, was completed in 2016. Major differences from the previous version of the SWAP include the revision of the SGCN list and KWHs; the revision of associated threats and actions; the addition of the State Assessment Priority Species (SAPS) list, which functions as a supplementary list for data deficient species of concern; an increased focus on plants, including a revised SGCN list; and a general consolidation of text and action items, meaning that this document is significantly shorter than the previous revision.



This introductory chapter serves as a primer for the rest of the SWAP. It begins with a brief history of wildlife conservation, both in Maryland and in the United States as a whole, with a focus on the role of MD DNR and the SWAP. This chapter then provides an overview of what the SWAP must include by Congressional requirement as well as the supplementary elements that Maryland has chosen to include. Finally, it ends with a brief list of the contents of each chapter and appendix.

A Brief History of Federal Wildlife Conservation Funding

Modern funding of wildlife management in this country has greatly evolved over the last 100 years. Historically, management programs were centered on game species. An overview of federal wildlife legislation of the twentieth century illustrates this focus.

The Pittman-Robertson Act of 1937 (Federal Aid in Wildlife Restoration Act) was designed to support selection, restoration, rehabilitation, and improvement of wildlife habitat, research, and information distribution, with an emphasis on game species. A 1970 amendment added hunter training programs and maintenance and support of public target ranges. Because the funding is derived from excise taxes on the sale of sporting arms, handguns, ammunition, and archery equipment, the focus on game species seemed logical.

The Dingell-Johnston Act of 1950 (Federal Aid in Sport Fish Restoration Act) intended a similar program as Pittman-Robertson for the management, conservation, and restoration of fishery resources. Similarly, funding is derived from the sale of fishing gear. An amendment adopted in 1990 to conserve wetlands reflected a modern shift in the understanding of the needs of nongame species protection.

Species not covered by the Pittman-Robertson and Dingell-Johnson Acts, and not listed in law as Threatened or Endangered, are addressed somewhat by the Forsythe-Chaffee Act (Fish and Wildlife Conservation Act). This Act, passed in 1980, called for comprehensive wildlife management plans that include nongame species. This was the first real step towards the integration of nongame and game species conservation. In other words, this act combined the goals of game species management, endangered species conservation, and keeping common species common. Unfortunately, though the legislation was passed, funding was never forthcoming.

To address this continued gap in funding for nongame species, in the 1990s, a coalition of state management agencies, private commercial ventures, and individuals known as Teaming with Wildlife amassed bipartisan support for the Conservation and Reinvestment Act (CARA). This act would have guaranteed a long-term (15-year) funding source to support efforts in state, federal, and local conservation programs. The goals of Title III of this Act were threefold: 1) to prevent species from becoming endangered, 2) to enhance outdoor recreation experiences, and 3) to foster a responsible stewardship ethic through conservation education. Although CARA passed a House vote in 2000 and 2001, it never made it to the Senate floor.

Instead, the Commerce, Justice, and State Appropriations Act provided a smaller, temporary funding source in 2000, called the Wildlife Conservation and Restoration Program (WCRP). These monies were transferred to the Department of the Interior and were meant to enhance fish



and wildlife conservation and restoration efforts, including wildlife-related education and recreation projects.

The most recent major federal funding source for wildlife conservation is the State and Tribal Wildlife Grant (SWG) program. These monies, derived from the Land and Water Conservation Fund, were first approved for the 2002 fiscal year in the Department of the Interior’s appropriations budget. These funds have been continued annually, although funding for states has fallen by approximately 35% compared to 2002 levels (USFWS 2002, 2025). This program aims to fill the holes left by previous federal legislation. Until this point, conservation agencies lacked the means to plan and prioritize comprehensively for all wildlife due to limited funding and programs. The creation of the SWG program and related SWAP requirement allows MD DNR and its partners to undertake this comprehensive planning effort using federal funds that are allocated annually by Congress.

The Role of the Maryland Department of Natural Resources

MD DNR is the lead agency on the decision for use of the federal funds discussed above, though it works closely with its conservation partners to make decisions and distribute funds for the implementation of conservation actions. The unit within MD DNR that manages wildlife efforts and funds is the Wildlife and Heritage Service (WHS)—more specifically, WHS’s Natural Heritage Program (NHP or the Program). NHP manages the expenditure of SWG funds and is also the entity in charge of revising Maryland’s SWAP. Since 1979, NHP has been the lead entity responsible for protecting and managing nongame, rare, threatened, and endangered species and their habitats. NHP seeks to sustain populations of rare plants and animals through the maintenance of healthy natural ecosystems. This is accomplished through a number of conservation actions, including field surveys, research on natural history requirements, restoration of degraded habitats, technical assistance and data distribution to conservation partners and landowners, and public education. Because of its responsibility for nongame and rare species, it is fitting that NHP would be the lead program within WHS on the SWAP.

The Program also works with other units within MD DNR and with private organizations for the purchase of properties and easements with habitats that support rare species and natural communities. Today, MD DNR owns over 507,000 acres of public land and protected open space (MD DNR 2025), with the Forest Service, Fisheries Service, Park Service, and WHS managing these lands for natural, historical, cultural, and recreational resources. WHS oversees the management of 64 Wildlife Management Areas (MD DNR 2026a). In addition to conservation of wildlife habitat through land ownership, MD DNR conserves land and wildlife habitat through a number of easement programs, such as the Conservation Reserve Enhancement Program, Rural Legacy Program, and Forest Legacy Program, and by working directly with landowners to provide technical guidance on managing fish and wildlife habitats. These partners and programs work towards the same goal, which was established in 2023 by the Maryland the Beautiful Act: to conserve 30% of the state’s land by 2030 and 40% by 2040 (MD DNR 2026b). The initial goal of 30% was achieved in 2024, far ahead of schedule.

In addition to the inherent value in conserving these natural areas, the protection of these lands and waterways greatly contributes to Maryland’s economy. In 2024, it was estimated that Maryland’s outdoor industry (e.g., boating, hunting, hiking, fishing, camping) generated 1.9% of



the state’s gross domestic product, or \$10.6 billion (MD DNR 2026c). This economic value is driven in large part by the efforts of MD DNR and its partners to preserve the lands and waters that support these activities.

MD DNR units also contribute to resource conservation in other ways. For example, the Maryland Forest Service’s regional foresters provide technical assistance and incentive programs to urban communities and private landowners to better manage forest habitats. The Maryland Park Service conserves and improves habitat on the properties that it manages for wildlife and public education and enjoyment. MD DNR’s Maryland Biological Stream Survey program (part of the Resource Assessment Service) provides information to ensure the protection and restoration of Maryland’s stream ecological resources. Fishing and Boating Services manage the state’s fisheries and shellfish, including the use of fish hatcheries to stock many of the state’s streams and other waters. Watershed and Climate Services restores ecosystems and builds habitat resilience in coastal habitats that support many SGCN. WHS manages the health of the state’s wildlife and related recreational opportunities, including the conservation of rare plants and animals under the coordination of the NHP, and the management of game species.

These examples constitute only a small fraction of the conservation efforts led by MD DNR. The multiple programs and services within MD DNR cooperate on these efforts, sharing their areas of expertise to apply the best available information and resources to the state’s conservation needs. Through the [MD DNR website](#), all of the programs and services within MD DNR that contribute to ongoing public education and involvement to promote citizens’ awareness of and participation in natural resource conservation can be seen and accessed.

The Contents of the SWAP

As prescribed by Congressional requirement, each SWAP must address the same eight elements (Table 1.1). The organization of Maryland’s SWAP document reflects these elements.

Table 1.1 Eight required elements identified by Congress

<u>Element 1:</u> Species of Greatest Conservation Need (SGCN)	Information on the distribution and abundance of species of wildlife, including low and declining populations as the State fish and wildlife agency deems appropriate, that are indicative of the diversity and health of the State’s wildlife.
<u>Element 2:</u> Key Wildlife Habitats (KWHs)	Descriptions of locations and relative condition of key habitats and community types essential to conservation of species identified in the first element.
<u>Element 3:</u> Threats	Descriptions of problems which may adversely affect species identified in first element or their habitats, and priority research and survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and habitats.
<u>Element 4:</u> Conservation Actions	Descriptions of conservation actions proposed to conserve the identified species and habitats and priorities for implementing such actions.



Element 5: Monitoring	Proposed plans for monitoring species identified in the first element and their habitats, for monitoring the effectiveness of the conservation actions proposed in the fourth element, and for adapting these conservation actions to respond appropriately to new information or changing conditions.
Element 6: Plan for Review and Revision	Descriptions of procedures to review the Strategy at intervals not to exceed 10 years.
Element 7: Partner Coordination	Plans for coordinating the development, implementation, review, and revision of the plan with Federal, State, and local agencies and Indian tribes that manage significant land and water areas within the State or administer programs that significantly affect the conservation of identified species and habitats.
Element 8: Public Involvement	Descriptions of the necessary public participation in the development, revision, and implementation of the Plan.

Along with these required elements, Maryland’s SWAP includes three additional elements. The first is the State Assessment Priority Species or SAPS list, the inclusion of which was recommended by NEFWDTC in the 2022 Northeast Lexicon (Crisfield & NEFWDTC 2022). It is essentially a list for data deficient species for which more information is needed to fully understand their status, trends, and associated threats and actions. More details on this list, as well as why it was included, can be found in Chapter 3. The second is the inclusion of plant species on the SGCN list. Although plants do not qualify for SWG funding, MD DNR decided to include them in the 2025 SWAP in order to elevate their needs and emphasize how important plant species are to the success of wildlife, as they are a critical part of the habitats that support SGCN. The third is the inclusion of case studies that ground the content of the SWAP in reality and showcase work done by MD DNR and its partners.

The Chapters and Appendices of the SWAP

Maryland’s 2025 SWAP revision is divided into nine chapters and thirteen appendices. The following paragraphs describe the contents of each chapter or appendix (with the exception of the current chapter) in order to aid in navigation.

Chapter 2 contains an overview of the landscapes, waterscapes, plant communities, and other physical characteristics of Maryland through the lens of its physiographic provinces. This provides context and lays the groundwork for the species and habitats described in later chapters. It also assists in the understanding of the four regions of Maryland (eastern, southern, central, and western) that are referred to throughout the SWAP.

Chapter 3 summarizes the full array of species found in Maryland and identifies Species of Greatest Conservation Need (SGCN) in each taxonomic group. It also describes the process used to select SGCN, the creation of the new State Assessment Priority Species (SAPS) list and its significance, the major threats facing each taxonomic group, and the actions that address those threats.



Appendix 3a contains the complete SGCN list.

Appendix 3b contains the complete SAPS list.

Appendix 3c contains the list of species that have been removed since the 2015 SWAP revision.

Appendix 3d contains a list of wildlife diversity sources of information used during the revision process, especially each taxonomic group's cited total number of species.

Chapter 4 introduces the concept of a Key Wildlife Habitat (KWH) and provides extensive descriptions for each KWH identified in the SWAP. Each description includes a habitat's physical characteristics, condition, distribution, and associated SGCN.

Appendix 4a contains the complete list of KWHs.

Appendix 4b contains a crosswalk of KWHs to their respective National Vegetation Classification Ecological Communities.

Appendix 4c cross-references Maryland's Key Wildlife Habitats and the Northeastern Terrestrial Wildlife Habitat Classification System.

Appendix 4d cross-references Maryland's Key Wildlife Habitats and the Northeastern Aquatic Habitat Classification System.

Chapter 5 reviews the threats facing Maryland's species and habitats. It provides an overview of the threat classification system and discusses priority threat areas identified by both Maryland and the larger Northeast region. This chapter supports the contents of **Appendices 6a** and **6b**.

Chapter 6 provides an overview of the conservation actions determined to be necessary to conserve the identified species and habitats. It also contains an explanation of these actions' prioritization schemes. It focuses on actions that address priority threat categories, are applicable statewide, or are considered regional priorities. This chapter also supports the contents of **Appendices 6a** and **6b**.

Appendix 6a lists all the species-level threats and actions in the SWAP. It identifies individual threats and lists each threat's applicable action, relative priority, and associated species.

Appendix 6b lists all the habitat-level threats and actions in the SWAP. It identifies individual threats and lists each threat's applicable action, associated habitat group(s), and any specific KWHs for which the action is particularly important.

Chapter 7 provides an overview of approaches and strategies for monitoring Maryland's SGCN, their habitats, and the effectiveness of implemented conservation actions. It also describes the use of monitoring data in an adaptive management framework to assess and improve the effectiveness of conservation actions.



Appendix 7a lists current species-level monitoring programs in Maryland.

Appendix 7b lists current habitat-level monitoring programs in Maryland.

Chapter 8 summarizes partner and public outreach, coordination, and participation throughout the SWAP process. It summarizes MD DNR’s current conservation partners and details how these partners were involved in the development process. It also lists the ways in which the general public were made aware of the SWAP update and provided the opportunity to comment.

Appendix 8a lists all the organizations that were involved in the SWAP revision process.

Chapter 9 describes the future of the SWAP, both in terms of implementation and the next revision process. It provides an overview of how MD DNR intends to work with its partners and the public to implement the SWAP’s objectives. It ends with a plan for the next SWAP revision, including periodic reviews and updates before the next major revision in 2035.

This chapter laid the foundation for the following 2025 State Wildlife Action Plan revision. It summarized the SWAP’s purpose, content, and organization. It also provided an overview of the history of wildlife conservation funding and the role of MD DNR in conservation efforts. The next chapter will provide information regarding Maryland’s physical landscape, laying the groundwork for identifying the species and habitats that are the focus of the SWAP.



Citations and Sources

- Crisfield, E. and the Northeast Fish and Wildlife Diversity Technical Committee (NEFWDTTC). 2022. *The 2022 Northeast Lexicon: Terminology conventions and data framework for State Wildlife Action Plans in the Northeast Region*. Northeast Association of Fish and Wildlife Agencies: Washington, DC.
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