

Chapter Ten

The Costs and Benefits of Sustaining Iowa's Natural Resources

Background

The costs of reaching the goals outlined in this Plan exceed the historic levels of conservation funding in Iowa. Hunters and anglers have funded most wildlife conservation. National and state trends indicate that the number of participants in hunting and fishing is declining. To reach the goals established in this Plan a broader spectrum of Iowans must invest in conservation. Supporting the Wildlife Action Plan will benefit the health of wildlife and people. Investing in cost-effective conservation will safeguard Iowa's natural resources for the generations to follow.

Annual Costs

The annual cost to bring the amount of permanently protected acres to 4% of Iowa by 2030 is estimated to be \$397 million (Table 10-1). At the current pace for land protection, this value is \$103,808,300 annually and will take Iowa a little more than 19 years to complete. Costs to implement the habitat management, research and surveys and other activities needed to implement the Plan are listed in Table 10-2. Combining habitat protection, habitat management, survey and research costs brings the total funding needed for implementation of this Plan to approximately \$165 million per year. The annual funding shortfall for implementation of this Plan is about \$127 million (Table 10-3).

Tracking Progress toward the Land Protection Goal

Land protection is a combination of land purchases and conservation easement purchases. Iowa DNR buys land *only* from willing sellers, and *only* at or below appraised value. Conservation easements can last for any number of years, depending on the easement program. For example, some Farm Bill conservation programs such the Wetland Reserve Easements Program (WRE), provide funding only for permanent easements. Iowa currently has 193,529 acres enrolled in USDA easement programs (about 40% of which are now also in public ownership).

When this Plan was first developed in 2005 it was estimated that approximately 604,000 acres were publicly-owned, and that approximately 650,000 acres of Iowa were permanently protected for conservation purposes. While the DNR maintained a GIS database of conservation and recreation lands, all entities protecting land were not uniformly able to submit their data on land protection efforts on a regular schedule. Having the Plan in place highlighted the importance of compiling this information across organizations. In the intervening decades, Iowa has improved its estimates through a combination of technological advances and increased coordination among conservation entities.

In 2015, the number of publicly-owned conservation acres was estimated to be 895,000. After private WRP and EWP easements were added, then the estimated number of permanently protected acres became 1,002,655. In addition, we estimated ~32,000 acres of private conservation easements, for a total of 1,034,655 protected acres.

As of 2025, there are 961,310 acres in public ownership (2.67% of Iowa). There are an additional 212,686 (193,529 USDA + 19,157 Conservation/Recreation acres) of known easements, resulting in a total of 1,173,996 protected acres, which represents 3.26% of Iowa.

Rate of Land Protection

In the past decade, approximately 139,341 acres of land in Iowa have been permanently protected through a combination of fee-title purchase and easements. This figure likely reflects improved reporting from cities and counties of land already in their possession prior to 2014, but if we assume that is not the case and that all gains in acres have been through acquisition or permanent easements, approximately 13,934 acres are protected annually.

Challenges to attainment of the original habitat goal remain considerable. The *original* goal to achieve permanent protection of 4% of Iowa's acres in 25 years would have required a rate of 31,600 acres protected per year. The rate between 2005-2014 was more modest: approximately 8,350 acres/year (both easements and acquisition). Between 2015 and 2024, the pace of land protection was approximately 13,934 acres/year (both acquisition and easements). The

remaining habitat needed to double the 2005 amount of land permanently protected in Iowa to 1,440,000 acres (4% of Iowa) would require a rate of land protection of ~53,333 acres/year between 2026 and 2030. That rate is about 3.8 times the current pace of land protection in Iowa. At the current rate of 13,934 acres protected per year, it will take 19.1 years to protect the remaining 266,664 acres needed, meaning that the habitat goal is more achievable by 2055 than 2030.

The cost per acre of land has influenced the amount of land protection that can be accomplished with a limited budget. The average cost/acre of land protected between 2005 and 2014 was just under \$2000, and the trend over that period was that the cost of land protection roughly doubled. In 2005, farmland values in Iowa averaged \$2900/acre. In 2014, average farmland values were closer to \$8000/acre (CARD, 2015). Between 2015 and 2024 these values changed such that the average cost/acre of land protected was \$8,886/acre. In 2015, the average acre cost \$7,633 but by 2024, this had risen to \$11,467 per acre (Chandio 2024). Low quality farmland was valued at \$7,450 per acre (Chandio 2024). Average cost-per-acre estimates aren't directly applicable to the types of lands acquired for conservation purposes, as public conservation land in Iowa is marginal for agricultural uses, with an average Corn Suitability Rating (CSR) of 32.1. The cost of farmland is presented here to illustrate the demand for land in Iowa as well as the variability of that demand over relatively short periods of time, all of which influence the cost of land protection.

Table 10-1. Cost to Double the Amount of Permanently Protected Conservation Land in Iowa

Habitat Protection Needs	Acres and Dollar Amounts
Acres in Iowa	36,000,000
Acres Protected Goal (4% of Iowa)	1,440,000
Current Acres Permanently Protected 2025 (3.26% of Iowa) (Public Ownership + Private Wetland Easements)	1,173,996
Additional Acres Needed	266,644
Cost/acre (2024) for marginal (low quality) land	\$7,450
Total Cost	\$1,986,646,800
Cost/Year (5 years, if attempting to reach goal by 2030)	\$397,329,360
Cost/Year using current annual land protection rate (13,934 acres per year)	\$103,808,300

Existing Sources of Funds

(estimated based on mean contributions to land protection over past 10 years)

Dedicated Funds	
Iowa Habitat Stamp	\$1,200,000
Iowa Migratory Bird Stamp	\$50,000
REAP License Plate Fund	\$270,000
Sub-total	\$1,520,000

Appropriated Funds (subject to debate or use for other purposes)

Federal NAWCA	\$900,000
Federal Farm Bill Conservation Easement Programs	\$9,500,000
Federal SWG	\$50,000
US FWS Land & Water Conservation Fund	\$65,000
Wildlife & Sport Fish Restoration (Pittman-Robertson)	\$3,000,000
REAP Public-Private	\$325,000
REAP Open Spaces	\$6500,000
Sub-total	\$14,490,000

Habitat Protection Needs	Acres and Dollar Amounts
Non-State and Federal Donations	
CCB's (using Habitat Stamp, REAP and 25% match)	\$4,700,000
INHF/PF/DU/NWTF/TNC & Individual Landowners	\$2,100,000
Sub-total	\$6,800,000
Available Per Year	\$22,810,000
Annual Shortfall to reach land goal in 2030	\$374,519,360
Annual Shortfall at current land protection pace	\$80,998,300

Table 10-2. Cost to manage public lands, provide technical assistance to private landowners, and conduct research & monitoring needed for wildlife population management, in accordance with this Plan's goals.

Wildlife Habitat Management & Science	Dollar Amounts
Public Land Management	\$48,800,000
Private Lands Assistance	\$9,525,000
Education	\$2,050,000
Recreation	\$2,050,000
Science & Monitoring	\$6,800,000
Total Annual Needs	\$61,225,000
Existing Funds	
Public Land Management	\$11,8000,000
Private Lands Assistance	\$1,150,000
Science & Monitoring	\$2,040,000
Total Available	\$14,990,000
Annual Shortfall	\$46,235,000

Table 10-3. Estimated funding needs for full implementation of Plan.

Combined Annual Costs	Dollar Amounts
Needs – Land Protection at current pace	\$103,808,300
Needs – Habitat Management & Science	\$61,225,000
Annual Needs Combined	\$165,033,300
Funds Available – Land Protection	\$22,810,000
Funds Available – Habitat Management & Science	\$14,990,000
Annual Funds Available Combined	\$37,800,000
Annual Shortfall – Land Protection at current pace	\$80,998,300
Annual Shortfall – Habitat Management & Science	\$46,235,000
New Funds Needed Annually:	
Total	\$127,233,300

Funding for Wildlife Action Plan Implementation

State & Tribal Wildlife Grant Program

At the national level, the sole funding source with the stated purpose of conserving SGCN and their habitats is the State & Tribal Wildlife Grant Program. Congress created the State Wildlife Grant (SWG) Program in 2000 and the Tribal Wildlife Grant (TWG) Program in 2001 to provide critical funding to state, territorial, commonwealth, District of Columbia (D.C.), and tribal fish and wildlife agencies to conserve at-risk fish and wildlife. These programs are administered by the U.S. Fish and Wildlife Service's Office of Conservation Investment. These programs filled a significant void in conservation funding for conservation reliant wildlife species and spurred new partnerships (U.S. Fish & Wildlife Service 2020). However, this funding is subject to the annual appropriations process in Congress. Funding appropriated to the STWG Program has varied over time (Figure 10-1).

In order to be eligible for SWG funding, State Agencies must have an approved State Wildlife Action Plan (SWAP). The funds are required to be used only to:

- Meet the needs of species of greatest conservation need or their habitats through activities that are identified in a State's Plan, as approved by the U.S. Fish & Wildlife Service Director, such as research, surveys, species and habitat management, and monitoring;
- Update, revise, or modify a State's Plan; or
- Address emerging issues affecting wildlife or their habitats that are not identified in a State's Plan. An emerging issue is a critical problem that needs attention or an unexpected and recently recognized opportunity that a State wants to address with Program funds.

The funds are divided among the states using a formula based partially on each state's land area and partially based on each state's population. Iowa's annual allocation is, on average, 1.23% of the full allocation for all states & territories.

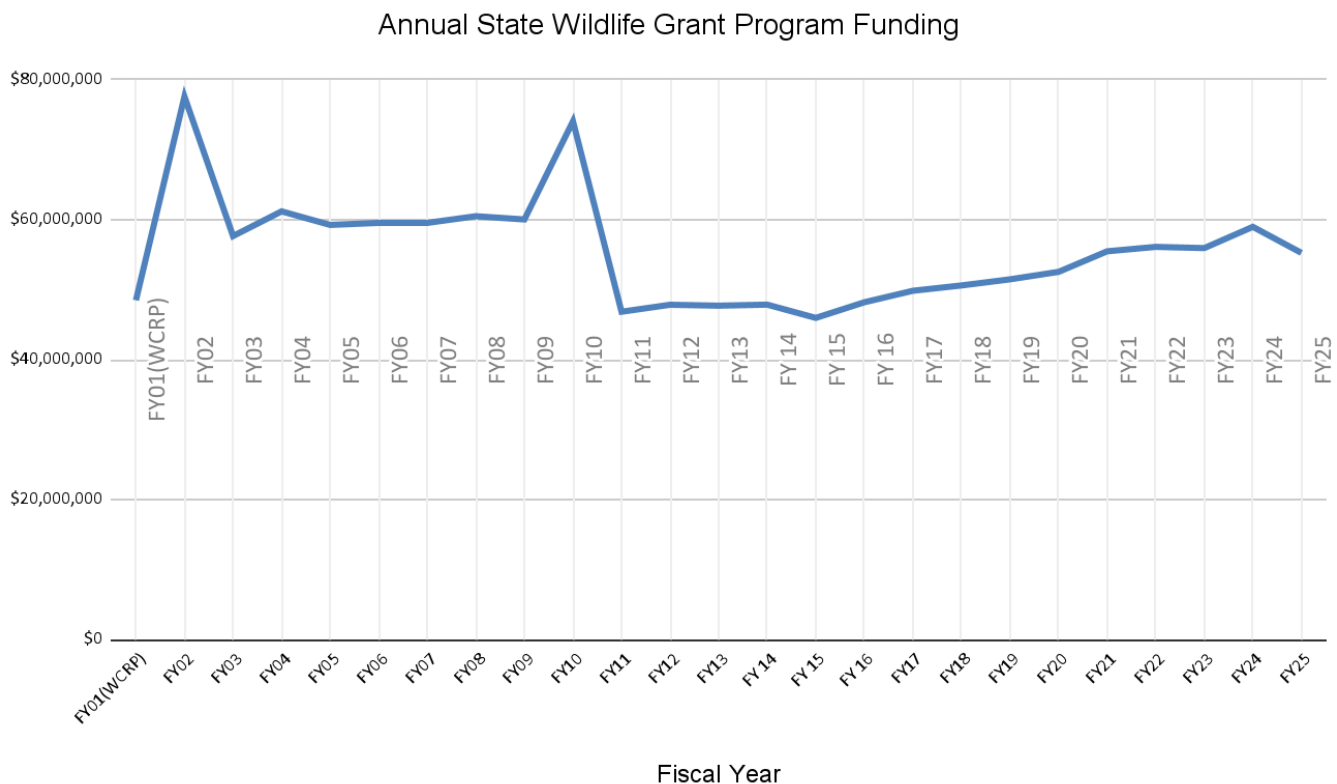


Figure 10-1. Annual State Wildlife Grant apportionments to States and Territories each fiscal year since program initiation. Amounts displayed reflect the amount available for States & Territories after deducting Tribal Grants, administration costs, and allocation to the competitive sub-program.

States are required to provide match (match requirements vary depending on the type of project being funded), and therefore SWG funds are leveraged to bring state and local funding to conservation efforts. This program has allowed Iowa to carry out a wide range of projects, including the Multiple Species Inventory & Monitoring Program discussed in

Chapter 7, habitat management on public and private land, and much needed research on the conservation needs of rare species. Chapter 11 describes a few of these projects in more detail.

Other Funding Sources

While STWG is the only program that is specifically intended to address the needs outlined in SWAPs, there are some other funding sources at the national, state, and local levels that also play a role in Plan implementation. The conservation community in Iowa continually seeks to leverage existing resources to attract additional resources to the implementation effort. Some examples of other funding sources that have been used to address the goals of this Plan include:

Federal Funding:

- [Cooperative Endangered Species Conservation Fund](#) (CESCF, also referred to as “Section 6” funding) grants. This is funding from the U.S. Fish & Wildlife Service available to State Fish & Wildlife Agencies for the benefit of species listed as Threatened or Endangered. Authorized by Section 6 of the Endangered Species Act, and partly funded through the Land and Water Conservation Fund, CESCF grants support the implementation of state and territorial programs that address the needs of federally listed and at-risk species.
- [North American Waterfowl Conservation Act \(NAWCA\) grants](#). This program is designed to benefit migratory birds that rely on wetlands by protecting, restoring and/or enhancing the nation’s wetlands and associated upland habitats.
- Wildlife Restoration and Sportfish Restoration Programs. These programs are administered to States by the USFWS Office of Conservation Investment. Funding comes from excise taxes on the sale of hunting and fishing gear, and is allocated based on formulas that include the number of license buyers in the state.

State Funding:

- [Resource Enhancement and Protection \(REAP\)](#) program. This is a State of Iowa program that invests in the state’s natural and cultural resources. REAP has a broad array of individual programs for which funding is allocated through a formula, after the legislature sets the total amount for the year. Some aspects of REAP funding can be used to implement the actions outlined in this plan. This funding source also allows Iowa to leverage federal funding for Plan implementation
- [Fish & Wildlife Trust Fund](#). This program uses money generated primarily from hunting, fishing, and trapping license fees as well as habitat stamp fees, donations from the Chickadee Tax Checkoff, and boat registration fees. It is protected by the Iowa Constitution from diversion for other purposes aside from regulation, research, management, education, and habitat protection of Iowa’s fish & wildlife resources. This fund, along with the Wildlife Restoration program described above, provides the foundation of funding upon which Iowa’s Wildlife Management Areas are protected and managed. These funding sources were originally initiated by hunters and anglers to protect and manage fish and game, and the habitat that supports them, as well as to provide places for outdoor recreation. These programs have also benefited a wide array of fish, wildlife and plants in Iowa, as well as areas for Iowans to appreciate nature.

County Funding:

- Iowa is fortunate to have a system of [County Conservation Boards \(CCBs\)](#). Across Iowa, CCBs own and/or manage almost 200,000 acres of parks, natural areas, preserves and trails. CCBs also take a lead role in [Iowa’s Integrated Roadside Vegetation Management](#) (IRVM) and programs for natural resource education and recreation.

Non-Profit Funding:

- Non-profit organizations that support wildlife conservation or land and water protection are critical to Plan Implementation. These organizations often contribute non-federal funds which can leverage federal grants. They also contribute in a multitude of other ways (e.g., raising public awareness of and engagement in conservation, volunteering time and supplies, providing information and expertise). Conservation in Iowa is nearly always conducted because of partnerships. Please see Appendix 20 for webpage links to partner organizations that contribute to Plan implementation.

Iowa is fortunate to have a community of conservationists full of dedicated and talented individuals, who engage from a variety of perspectives, whether they are wildlife, forestry, or fisheries professionals, ‘amateur’ wildlife enthusiasts who frequently embody vast expertise and deep understanding of certain taxa, or educators, researchers, and academicians. They may also represent non-profit conservation or scientific organizations, educational institutions, state, local, or federal governmental agencies, or may simply be volunteering their time to support community science or conservation initiatives. This community is inspirational in its boundless energy, commitment, and creativity.

Benefits of Sustaining Biodiversity in Iowa

Economic Benefits

Outdoor recreation is a significant economic driver in Iowa as demonstrated by several key metrics. According to the Bureau of Economic Analysis (BEA), in 2023, the outdoor recreation economy contributed \$5.3 billion to the nation’s Gross Domestic Product (GDP), and Iowa was ranked 36th nationally with a 2.1% share. This sector’s economic impact extends beyond direct spending, encompassing a wide range of goods and services.

The outdoor recreation economy includes:

- Direct spending: User expenditures on equipment, gear, travel, food, lodging, and entrance fees.
- Industry and recreational services: Contributions like salaries, wages, and transportation.

In 2023, Iowa’s outdoor recreation sector was responsible for 46,000 jobs and \$2.19 billion in wages, according to BEA data.

Iowa’s parks and recreational activities are major contributors to the state’s economy. In 2024, despite the closure of three campgrounds for the entire season, Iowa State Parks recorded an impressive 13,714,545 visits. County Parks, a unique feature of Iowa’s recreational landscape, are estimated to receive a comparable number of visits. The population of Iowa was approximately 3,210,000 in 2024.

Data compiled by Headwaters Economics from the 2023 BEA report highlights the economic power of these activities:

- RVing, tent camping, and hiking: These activities alone contribute \$456.8 million to Iowa’s GDP.
- Hunting and fishing: These activities contributed at least \$115.8 million to Iowa’s GDP and in 2024, Iowa sales totaled 587,390 licenses.
- While BEA data does not specifically track wildlife watching, national trends indicate that these enthusiasts contribute significantly to the economy through travel, equipment purchases, and backyard bird feeding activities.

Other work shows similar contributions. In Iowa, fishing for sport supports 5,880 jobs, generates \$859 million in economic activity, and produces \$55 million in state and local tax income (Scuderi et al. 2024a). Hunting and target shooting supports 7,740 jobs, generates \$977 million in economic activities, and produces \$72 million in state and local tax income (Scuderi et al. 2024b, c). Although estimates were not available for wildlife watching in Iowa, national results indicate that wildlife watchers spend \$2,188 per person on their hobby, and that the sport is growing while hunting and fishing activities decline (USFWS 2023).

Regardless of whether the analysis focuses specifically on the economic contributions of fish and wildlife or outdoor recreation more broadly, the conclusion is clear: conservation is a solid investment for Iowa. The data consistently show that protecting and managing the state’s natural resources has a direct and positive impact on its economy, creating jobs and generating substantial revenue.

Other Benefits

Nature provides many benefits and services to people (clean air, clean water, food, crop pollination, medicine, aesthetics, relaxation, recreation, etc.), some of which cannot easily be translated into monetary values. Below are some examples of the types of benefits provided by natural communities in Iowa:

Wetlands

- Groundwater recharge
- Flood attenuation
- Hunting opportunities
- Aesthetics
- Nutrient removal (clean water)
- Habitat for diverse plant and animal communities
- Reduction in flashiness of hydrologic system

Box 10-1

“Someday we may need this prairie flora, not only to look at but to rebuild the wasting soil of prairie farms. Many species may then be missing. We have our ears in the right place, but we do not yet recognize the small cogs and wheels.”

Forests

- Habitat for diverse plant and animal communities
- Recreation (e.g., hiking, camping, hunting)
- Aesthetics
- Generation of wood products
- Carbon storage
- Air quality

Grasslands

- Soil quality
- Water quality
- Carbon storage
- Aesthetics
- Habitat for diverse plant and animal communities
- Recreational opportunities

These benefits are sometimes referred to as “ecosystem services.” The values of ecosystem services have not regularly been captured in monetary terms, but frameworks are being developed (Brander et al. 2024). For example, there is now an [Ecosystem Valuation Database](#). Hopefully, future analyses of the return on investment for conservation expenditures will continue to incorporate more ecosystem services in order to more accurately capture the costs and benefits of conservation investments.

To learn more about priorities for outdoor recreation in Iowa, please visit the [Iowa Statewide Comprehensive Outdoor Plan](#).

Conclusion

Iowans value natural resources. A 2022 survey of Iowans found that Iowans view outdoor recreation as providing the following personal benefits (Responsive Management, 2022):

- A sense of peace, relaxation or stress relief (95%)
- Positive family activities (92%)
- Mental or emotional health (92%)
- Health & fitness (93%)
- Healthy childhood development (86%)
- The healing power of the outdoors (85%)
- Adventure or challenging activities (75%)

A 2018 survey asked Iowans for their views on how fish and wildlife management is currently funded at the state level, and how management should be funded in the future (Dietsch et al. 2018). The survey respondents included representatives of the hunting and angling communities as well as non-hunters / anglers. The survey question was asked on a 7-point scale ranging from entirely funded by hunting and fishing license fees (license fees) to equally funded by license fees and public tax funds (public taxes) to entirely funded by public taxes. Perceptions of current funding and preferences for future funding were similar, with 79% of respondents indicating that a mix of license fees and public taxes do, and should continue to, fund fish and wildlife conservation. The results of this survey indicate that a majority

of Iowans, regardless of hunting or fishing participation, support a balance of funding sources for fish and wildlife conservation.

Iowa citizens are strongly in favor of investments in conservation. In a 2013 bipartisan, statewide survey of voters, 97% of respondents agreed (76% strongly agreed) with the following statement (FM3 and POS, 2013):

“We need to ensure that our children and grandchildren can enjoy Iowa’s land, water, wildlife and natural beauty the same way we do.”

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