DIVISION OF FISHERIES

2024-2029 STRATEGIC PLAN FOR THE CONSERVATION OF ILLINOIS FISHERIES AND AQUATIC RESOURCES

Mission: To conserve and enhance the state's fisheries and aquatic resources and ensure public access to these high-quality resources.

Vision: To be recognized as a leader in science-based fisheries management, conservation, and stakeholder engagement for the benefit of recreational anglers, the State's economy, and future generations of all Illinois' citizens.

Values: Service - Professionalism - Communication - Diversity - Transparency - Fairness

INTRODUCTION

This Strategic Plan for the Conservation of Illinois Fisheries and Aquatic Resources provides an overview of a multi-faceted approach by the Illinois Department of Natural Resources (IDNR) Division of Fisheries to conserve and enhance the fisheries and aquatic resources of Illinois and to increase angler accessibility and participation. The Division of Fisheries aims to achieve sustainable fisheries through evidence-based management, conservation of aquatic biodiversity, protection and enhancement of aquatic habitats, effective engagement with stakeholders, utilizing advancements in research and innovation, and by building partnerships to ensure the future of Illinois fisheries resources.

Illinois DNR fish hatcheries produce and stock more than 20 species of fish annually to create angling opportunities and enhance existing fish populations to achieve management objectives and conservation goals. Monitoring and regulating angler harvests to sustain balanced aquatic systems, coupled with educational initiatives, and ensuring sufficient public access to fisheries, are integral to offering a diversity of high-quality angling experiences in Illinois waters. Maintaining and enhancing diverse aquatic habitat is fundamental to meeting the various needs, from foraging to reproduction, of fish and other aquatic life. Habitat enhancements also can play a role in increasing angler success and satisfaction. Prevention and management of aquatic nuisance species is another critical component of aquatic resource management in Illinois, often addressed through implementation of regulations, rules, and information-driven control strategies to safeguard the ecological balance and health of the State's aquatic ecosystems.

Stretching nearly 400 miles from its northern border to the southern tip, Illinois boasts a rich diversity of aquatic life. From the thriving populations of salmon and trout in Lake Michigan to the banded pygmy sunfish dwelling in the cypress-tupelo swamps of the Lower Cache River, the waters of the State host a wide array of angling opportunities. Bordered almost completely by water (the Mississippi, Ohio, and Wabash rivers, and Lake Michigan), Illinois features an intricate network of over 87,000 miles of tributary streams, crisscrossing and draining its interior. Dams on many of these interior rivers and streams form nearly 1,300 public impoundment lakes, including three large U.S. Army Corp of Engineers reservoirs. A total of 701,088 anglers purchased an annual Illinois fishing license in 2023. The national average for fishing-related expenses per angler (equipment and trip-related expenses) was $2,490, based on the 2022

National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (U.S. Fish and Wildlife Service), suggesting that Illinois anglers contributed over $1.7 billion to the state's economy in 2023. Commercial fishing and recreational boating contribute additional hundreds of millions of dollars. Despite the perceived abundance of valuable water resources, Illinois has less water acreage than most states of its geographical size. Because Illinois is the sixth most populated state, coupled with decades of water quality degradation, the Division of Fisheries must intensively manage these waters to provide sustainable fisheries. This Strategic Plan is intended to help direct the effective and efficient management of Illinois aquatic resources.

FUNDING

The Division of Fisheries operates with an annual budget of approximately $22 million drawn from a variety of sources. The primary funding sources are the State's Wildlife and Fish Fund, the Fish Management Fund, and federal grants from the U.S. Fish and Wildlife Service.

Monies deposited in the Wildlife and Fish Fund (approximately $10.5 million annually) are generated largely from the sale of sport fishing licenses and stamps. Additional funding is derived from fees associated with commercial fishing licenses, aquaculture permits, natural resources damage recoveries, as well as permits for the purchasing and selling of certain aquatic life. The Fish Management Fund (approximately $2-3 million annually) statutorily draws a percentage of transportation revenues.

The U.S. Fish and Wildlife Service Sport Fish Restoration Program, enacted by Congress in 1950 through the Sport Fish Restoration Act (SFRA; or Dingle-Johnson Act), is funded by sportsmen and women through excise taxes on sport fishing-related equipment, import duties, boats and a portion of the gasoline tax attributable to small boat motors. These funds are allocated to the states and the portion of funding that each state receives from the SFRA is determined by several factors including license sales, population size, and land area, among others. In 2023 alone, SFRA accounted for just over $7.6 million of the Division of Fisheries budget. Fisheries Division staff also utilizes State Wildlife Grants from the U.S. Fish and Wildlife Service to support conservation efforts for at-risk species, or "species of greatest conservation need", throughout the state.

Additional grants from the U.S. Environmental Protection Agency's Great Lakes Restoration Initiative, administered by the U.S. Fish and Wildlife Service, are used to manage aquatic nuisance species and have continued to increase each year, currently reaching $12.8 million.

Lastly, the Division receives supplemental funding through competitive grant awards, cooperative agreements, partnerships, and legislative appropriations. Each funding source plays a crucial role in supporting the Division's initiatives and ensures the sustainable management and conservation of the State's fisheries and aquatic resources.

CURRENT AND FUTURE CHALLENGES

The Illinois Department of Natural Resources, by statute, has jurisdiction over 203 species of fish, 45 species of amphibians, 74 species or reptiles, 25 species of crayfish, and 78 species of mussels. These resources face numerous threats that require recognition and careful consideration to appropriately address these challenges to sustainable management.

Habitat degradation
Land use practices over many decades have negatively affected the quality of Illinois' aquatic resources. Erosion, sedimentation, point and non-point source pollution, channelization, riparian clearing, urban sprawl, low head dams and other barriers, and other changes affecting hydrology degrade the vast network of Illinois rivers and streams. Impoundments, the majority of Illinois lakes, also are impacted through their connection with flowing waters. Rare and imperiled species are most affected. These degraded aquatic habitats cause instability in the function of aquatic systems and can impede the Division of Fisheries ability to provide sustainable fisheries.

Aquatic nuisance species
Illinois has been at the forefront of invasive species control and management for decades. Many Illinois citizens can attest to the ecological and economic damages incurred due to aquatic nuisance species, whether that be zebra mussels or invasive carp. A number of the technologies and approaches available to fisheries managers were developed here in Illinois. Despite major successes, such as decreasing abundance of invasive carp by more than 90% in certain areas, it is imperative to stay vigilant in the fight against invasive carp and other aquatic nuisance species to protect the ecological integrity of Illinois aquatic systems.

Changing angler demographics
"North American Model of Wildlife Conservation" is a very successful approach to meeting conservation and management needs through a "user-pays" system. Funds from sport fishing and hunting licenses and permits are matched by federal funds derived from excise taxes on related purchases. Like most states Illinois has seen steady declines in license sales over the past decade. Initiatives to recruit new anglers and retain existing anglers is critical to ensure funds are available to meet the goals and objectives identified in this Strategic Plan. As such, it is important to not only understand the attitudes and preferences of our angling base, but also underrepresented demographics to foster participation in angling activities. Understanding how the attitudes and preferences of our angling base changes also is important to ensure the Division of Fisheries provides quality angling experiences. The most recent U.S. Census information indicates that Illinois is experiencing a shift in demographics towards older individuals which may affect desired angling opportunities. This aging population, for example, may have a greater desire for family accessible locations to ensure the next generation of anglers are able to begin enjoying and valuing the same outdoor experiences.

Climate change
Climate change is anticipated to not only increase temperature but also change precipitation patterns, leading to changes in hydrology. Increased frequency of flooding and drought will likely further degrade aquatic habitats. Access to thermal refugia will continue to be important for fish species growth, survival and reproduction, but particularly important for our cool water fish species. Maintaining or increasing bathymetric diversity (i.e., presence of deep and shallow areas) and controlling sedimentation are important initiatives to mitigate effects of climate change.

New technologies
There is much concern over advances in fishing technology, such as forward-facing sonar, and the potential deleterious effects on sustainability of Illinois fisheries. It is the obligation of the Division of Fisheries to use objective, evidence-based decision making to develop regulations, if warranted, to protect the aquatic resources of Illinois. Although collecting and analyzing data to make informed decisions takes time it is critical to making fair decisions that ensure sustainability of fisheries and equitable access to aquatic resources.

2024-2029 STRATEGIC PLAN GOALS, OBJECTIVES, AND STRATEGIES

Goal 1: Provide a diversity of quality angling opportunities
Fisheries in Illinois provide an array of angling experiences. Meeting the needs and preferences of the angling public through sustainable fisheries management practices ensures continued interest and economic benefits to the State.

Objective 1. Create, maintain, and enhance angling opportunities.

Strategy 1. Conduct efficient and comprehensive surveys and inventories of fish populations, aquatic communities, and important habitat to support an evidence-based approach to enhance fisheries and aquatic life.

Strategy 2. Develop science-based regulations that promote sustainable fisheries and provide a balanced allocation of resources among user groups.

Strategy 3. Utilize fish stocking to create or enhance existing angling opportunities.

Strategy 4. Implement appropriate biological, mechanical, or herbicide control measures to manage nuisance aquatic vegetation where necessary, promoting quality angling experiences.

Strategy 5. Assess recreational angler attitudes, preferences, satisfaction, and resource use patterns and incorporate in management decision processes.

Strategy 6. Provide technical guidance on best management practices for fish management, stocking, and habitat improvement to public and private landowners.

Objective 2. Ensure sustainable and economically-beneficial commercial fishing opportunities.

Strategy 1. Monitor and regulate commercial fish harvest activities to ensure fish population sustainability and minimize conflicts with other user groups.

Strategy 2. Monitor and regulate harvest of commercial freshwater mussel populations to ensure mussel diversity and population sustainability.

Strategy 3. Engage in intra and interstate cooperative research, regulatory, and management activities to ensure fish and freshwater mussel diversity and population sustainability, and provide enhanced quality angling experiences.

Objective 3. Increase access and accessibility to new and existing angling opportunities.

Strategy 1. Utilize Cooperative Fisheries Management Agreements to increase public access to waters of the state.

Strategy 2. Work with partners to expand access utilizing the Boating Access Program.

Strategy 3. Promote and expand the Access to Fishing program.

Strategy 4. Provide catchable fish to areas with limited fishing opportunities.

Strategy 5. Increase ADA compliance at public angling locations.

Goal 2: Protect and enhance fish and aquatic life and their habitats
Efficiently functioning aquatic systems provide stability and are more resilient to environmental changes. Functioning aquatic systems are often dependent upon the presence of well-structured fish communities and undegraded habitats suitable for critical life stages, and the prevention and management of aquatic nuisance species.

Objective 1. Conserve and manage aquatic species and their habitats.

Strategy 1. Plan, execute, and evaluate habitat stabilization and enhancement projects where habitats critical to various life stages of fish and aquatic life are limited.

Strategy 2. Manage aquatic and terrestrial vegetation at levels which benefit fish community structure and function.

Strategy 3. Assess potential impacts of new and existing barriers, or deterrents, to fish passage on fish and aquatic life population sustainability and the ability to provide a diversity of quality angling experiences.

Strategy 4. Share expertise with agency partners and participate in environmental assessments and permit reviews.

Strategy 5. Protect and enhance nongame, rare, and endangered and threatened species.

Strategy 6. Stock fish and other aquatic species to provide stability in aquatic communities.

Strategy 7. Support applied fisheries research in the areas of fish biology, fish population and community dynamics, and fish-habitat interactions.

Objective 2. Provide healthy fish and fish that are healthy for people.

Strategy 1. Monitor and mitigate fish pathogens in the State Hatchery System.

Strategy 2. Preserve genetic vigor of native sportfish and non-game fish populations spawned or reared in captivity.

Strategy 3. Collect fish flesh and other samples as needed in cooperation with Illinois Environmental Protection Agency (IEPA) and Illinois Department of Public Health to advise the public on safe fish consumption levels.

Strategy 4. Conduct fish and mussel kill investigations to identify natural or disease causes, and estimate numbers, sizes, and monetary values of fish and mussels killed by pollution-caused events for mitigation.

Objective 3. Increase effectiveness of restoration and management activities through partnerships.

Strategy 1. Facilitate collaborative habitat restoration and enhancement projects, when possible, to leverage diverse authority, expertise, and funding opportunities.

Strategy 2. Collaborate with federal, state, local governments, and nongovernmental organizations (NGOs) that are working on priority fisheries and habitat issues.

Strategy 3. Actively participate in management planning and actions for interjurisdictional fisheries (i.e., Lake Michigan and border rivers).

Strategy 4. Participate in annual Plan-of-Work meetings to foster multidisciplinary planning at state-owned sites.

Strategy 5. Support and expand public engagement in stewardship through educational programs and outreach.

Strategy 6. Conduct river basin surveys annually in partnership with Illinois Environmental Protection Agency to assess fish population status and conservation efforts.

Objective 4. Minimize the impacts of aquatic nuisance species.

Strategy 1. Communicate and disseminate information about aquatic nuisance species risks, impacts, prevention, and management to the public.

Strategy 2. Prevent establishment or limit the spread of established aquatic nuisance species into uninfested waters of the state through effective regulation and application of control strategies.

Strategy 3. Prevent new introductions of aquatic nuisance species through a rigorous aquaculture permitting system.

Goal 3: Foster efficient and effective Division operations

Funding, time, and manpower are limited resources. To successfully manage the State's aquatic resources, judicious use of these limited resources through evaluation planning and prioritization, and utilization of data-driven, evidence-based management techniques and advancements are necessary.

Objective 1. Increase efficiency and effectiveness of fisheries management actions.

Strategy 1. Develop, review, and update management plans for all managed waterbodies to be used as guiding documents to ensure focused, efficient, and cost-effective management activities and positive angling outcomes.

Strategy 2. Evaluate regulation efficacy in restructuring or otherwise improving fisheries.

Strategy 3. Evaluate the success and cost-effectiveness of habitat enhancement activities.

Strategy 4. Promote natural reproduction of fish species over stocking.

Strategy 5. Develop species restoration, rehabilitation, and management plans which incorporate Best Management Practices, goals and targets, and evaluation methods.

Strategy 6. Conduct reviews of fish stocking activities to evaluate the cost-benefit of each stocking location and species, while considering associated effects on local and state economies.

Objective 2. Develop and enhance decision-support tools for optimal resource management.

Strategy 1. Create, implement, and refine electronic systems for tracking fishing licenses and permits.

Strategy 2. Continue development and improvement of the Fisheries Database and analysis tools.

Strategy 3. Collect angler interview data to assess angler effort, catch, and harvest trends of targeted fish species to assess management actions and improve decision-making.

Strategy 4. Support development and utilize stock assessment models and tools for intensively managed fish and aquatic life species.

Strategy 5. Seek out and incorporate new and emerging technologies and techniques into Fisheries Division operations.

Objective 3. Hire, train, and retain employees within the Division of Fisheries.

Strategy 1. Encourage and support professional development through continuing education opportunities for staff.

Strategy 2. Facilitate staff access to relevant fisheries information, and management techniques and tools.

Strategy 3. Support and facilitate staff participation in publication of research in peer-reviewed journals.

Goal 4: Promote aquatic resource stewardship as well as interest and participation in fishing through effective communication, outreach and education.

Fisheries management is largely funded through a user-pay system. Retaining and drawing in new anglers is critical to maintaining an effective management and conservation program for Illinois' aquatic resources.

Objective 1. Increase sport fishing participation.

Strategy 1. Conduct youth-oriented angling and education programs.

Strategy 2. Develop innovative approaches to increase interest in fishing of underrepresented demographics.

Strategy 3. Engage in partnerships with outside entities to maintain and grow our angler base.

Objective 2. Increase awareness of fishing opportunities, grow fishing interest and engagement, and amplify stewardship across all demographics.

Strategy 1. Regularly update and publish the fishing information booklet containing fishing regulations in both print and online versions, and in multiple languages.

Strategy 2. Provide information on angling methods and access, benefits, and raise interest in sport fishing through the ifishillinois.org website and related social media platforms.

Strategy 3. Utilize live fish and interactive fish displays, fisheries information, and in-person expertise to promote Illinois fisheries at outreach events.

Strategy 4. Promote diverse fishing opportunities by providing targeted information and updates to specific regions, demographics, interest groups, and media outlets across the state.

Strategy 5. Promote unique fishing opportunities like the catchable trout program and designated kids fishing ponds.

Objective 3. Increase public engagement in stewardship of Illinois' aquatic resources through communication and informational materials.

Strategy 1. Conduct informal meetings with user groups.

Strategy 2. Utilize social media to engage with user groups.