

A HISTORY OF SPORT FISH RESTORATION'S IMPACT ON FLORIDA'S FRESHWATER FISHERIES

Since its inception in 1950, Federal Aid in Sport Fish Restoration (SFR) has provided vital funding for Florida's freshwater recreational fisheries. Over the last decade, these funds generated approximately \$2.3 million annually for freshwater fisheries management (Figure 1). This constitutes a quarter of the budget for the Division of Freshwater Fisheries (Division), Florida Fish and Wildlife Conservation Commission (FWC), which is responsible for managing 1.2 million hectares of lentic water, and more than 19,000 kilometers of lotic water. The resulting freshwater recreational fishery generates nearly \$1.5 billion in economic output and keeps approximately 19,000 people employed. Without this funding, programs directed at aquatic habitat restoration, fish stocking, fishing access, aquatic education, urban fisheries, and applied fisheries research would be severely curtailed.

The first freshwater fishing regulation was passed in Florida in 1855, 10 years after Florida became a state and 58 years before the first Florida fisheries agency was created. It was not until 1999 that voters decided to include saltwater species under the constitutional umbrella, resulting in creation of the FWC.

The first fishery biologist was hired in 1946, and at the time funding was based entirely on fishing license sales. Hence, it was a great boon when the Dingell-Johnson (DJ) Federal Aid to Sport Fish Restoration Act passed in 1950 and began returning federal excise tax money to Florida. The Division's stated goals for the money were: (1) to improve sport fish catch and (2) to use aquatic resources on a sustained yield basis.

Today, our goals are similar: (1) to provide healthy resources and (2) to ensure satisfied customers. More specifically, we seek to create angler satisfaction by improving the sport fish catch and by enhancing the overall quality of the fishing experience. More market-based research is conducted to complement research on fish biology, population management, and habitat enhancement. The question is not just "do we provide more or bigger fish?" It is "how do we identify diverse customer segments, in specific fishing areas, and what they want from their fishing experience?"

"Optimum-sustained use" is now our basic management philosophy, rather than "maximum-sustained yield." This philosophical evolution has been demonstrated by emphasizing quality fishing access (e.g., boat ramps, fishing piers, bank fishing opportunities at urban ponds), outreach programs (e.g., aquatic education centers, urban fishing clinics, family fishing events), and maintaining healthy fish populations (through habitat management, regulations tailored to local needs, and appropriate stocking programs).

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Current programs funded by SFR demonstrate how anglers benefit from the "user-pays, user-benefits" philosophy. Freshwater fisheries in Florida have received approximately \$2.3 million each year since 1988 (Figure 1), but this has been adversely affected by inflation.

In FY 1999-2000, the allocation of monies is as follows:

1. Fishing Access Development (\$530,000)—The FWC and its predecessor built more than 300 freshwater boat ramps since 1950 and currently maintains 211. Our objective is to provide quality fishing access by annually building two new ramps and three fishing piers, and renovating six ramps. It is evident from boat registrations and creel surveys that freshwater boating usage has increased and, on some water bodies, the only public boating access is via our ramps; without Federal Aid funds this access would not exist.
2. Community-Based Fisheries (\$373,000)—More than 10 million of Florida's 15 million residents live in metropolitan areas. With this high degree of urbanization, servicing these residents is a necessity. In 1947, the old Game and Fresh Water Fish Commission (GFC) held its first "fishathons" to interest children living in urbanized areas in fishing. As a result of the increased SFR funding through the Wallop-Breaux amendments, an official "Urban Pond Program" was developed in the Jacksonville area. The program's success resulted in its recognition as the SFR project of the year, after which three additional urban fishing projects were added in the Orlando, Tampa and Miami areas. These programs provide 1,000-3,000 hours of fishing pleasure per hectare per year, by using intensive management techniques including put-grow-take stockings, supplemental feeding of fish, and aeration. The total water area included in the program is 300 hectares, constituting 32 sites ranging from 0.8 hectares to 64 hectares each. Urban fisheries projects integrated with fishing clinics and rodeos are cornerstones of our outreach program,

- and are showcases for cooperation with local governments and conservation groups. In 1998-99, these projects hosted 181 clinics (8,270 youth participated), 44 fishing derbies (11,373 anglers) and 47 presentations (117,975 attendees).
3. Aquatic Education (\$256,000)—These programs attempt to alter people's behavior to help conserve aquatic habitats and promote ethical freshwater fishing. Efforts are focused in two FWC aquatic education centers and we also utilize programs such as: Aquatic Wild, 4-H, Hooked on Fishing—Not on Drugs, Becoming an Outdoors Woman, and FWC's "Ladies Bait Your Own Hook." In 1998-99, our aquatic education efforts reached 1.9 million citizens, up from 1.5 million just two years earlier. These efforts are fundamental to achieving our goals of ensuring healthy resources and satisfied customers.
 4. Tenoroc Fish Management Area (\$237,000)—Central Florida has been heavily mined for phosphate, resulting in a series of pits whose natural productivity and isolation create outstanding trophy bass fisheries. Unfortunately, most are not accessible to the public. Tenoroc Fish Management Area is an exception. This 2,590-hectare tract of land was donated to the State in 1982. The FWC manages the area for multiple uses, including fishing and fisheries outreach. In particular, 11 managed pits (336 ha) provide outstanding public fishing, and one lake, Hydrilla Lake, is set aside as a special opportunity fishery. Hydrilla Lake is open only on Friday and Sunday and is limited to one boat, with a maximum of three anglers. All bass must be released, but the odds of catching a quality bass and experiencing a peaceful fishing trip are high. Anglers enter a random drawing to use the lake and pay \$50 if selected. This is an example of providing a specific group of customers with the type fishing they want and represents the "user-pays, user-benefits" philosophy, with revenue staying on-site to improve fishing.
 5. Commission-Managed Impoundments (\$136,000)—In the 1970's the GFC created six impoundments totaling 572 hectares in the western panhandle of Florida, a region lacking natural lakes. These impoundments have been intensively managed to create extremely popular fisheries. Fertilizer and habitat management programs have tripled production of harvestable-sized fishes. Creel surveys document panfishing success rates approaching six fish per hour, and 34% of harvest occurs around artificial spawning beds and attractors. Typical springtime creels reveal nearly 500 hours of fishing pressure per hectare on these waters. With the current value of an hour of fishing estimated at being worth \$18.20 to the local community (for non-resident bass anglers the figure is \$43.89 and for local subsistence anglers it is \$5.94), this provides an exceptional return on investment.

6. Everglades Fisheries Management (\$93,000)—The Everglades Water Conservation Areas (WCAs) cover 3,500 km² and are impacted by agriculture and water-level stabilization. An understanding of how WCA fisheries react to various water-level scenarios is necessary to make wise management decisions for the southern third of the state. As a result, this project is providing critical applied research to ensure that freshwater fish populations and recreational fisheries are properly considered during restoration of the Everglades system.
7. Fisheries Data Base Management (\$88,000)—Information management is critical to effectively and efficiently meet our goals. Data bases correlating water quality, aquatic habitat and fish populations can be matched to creel data to provide realistic expectations and to help design and validate appropriate management programs. This project also helps evaluate customer desires, constraints on participation, and satisfaction, so the information can be used to set management goals and measure success.
8. The remaining funds were allocated to administration and fixed-capital outlay (FCO) projects, such as restoration of Commission-managed impoundment structures this year.

In conclusion, Florida has immensely valuable and popular freshwater recreational resources but only limited funding to ensure the health of fish populations and aquatic ecosystems. Since SFR's inception in 1950 the excise taxes and motor boat fuel monies expended by Florida anglers and returned to the state via SFR have served Florida's resources exceptionally well, and will hopefully continue into the foreseeable future.

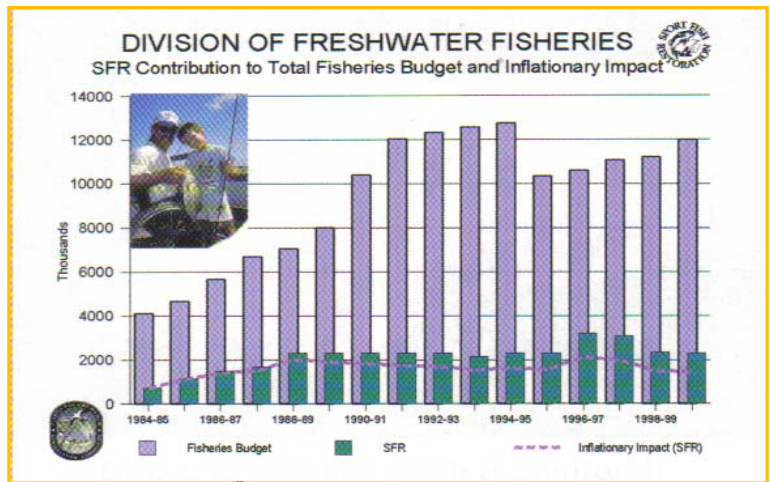


Figure 1. Since 1988 the Florida freshwater fisheries apportionment has remained relatively stable, as a result of Congress' 1988 actions to recalculate the allocation between fresh and saltwater programs while protecting the historic freshwater apportionments. However, inflation has taken a toll on the revenue's buying power.