
Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Alabama

Name of Representative to Technical Committee: Graves Lovell

Date Submitted: 01/04/2022

Alabama Public Fishing Lake (PFL) Update by Graves Lovell

Of our 23 PFLs, we have continued to manage most for maximum yield of bass, bream, catfish and crappie. A few lakes are operated by the city and only advised by our agency. Most, however, have a contracted lake manager on site that manages the anglers, fertilizes the lake, and keeps grass cut and litter picked up. They are also responsible for collecting all harvest data. Since our goal for most lakes has been to maximize yield of multiple species, they typically result in a predator-crowded system and often become stagnant within 10 years. Draining and renovation is often done on a much longer rotation due to costs and other issues.

Fish habitat is deployed in most of the lakes, some offshore and some in reach of the bank, to provide concentrations of fish for anglers and to increase sampling efficacy. We have deployed all types of attractors, including artificial and natural. The natural reefs with seem to be the most attractive to fish by far. Natural materials with high surface area, such as cedar trees and recycled douglas fir seem to be the best. Each lake on average probably receives 1 tree per acre annually, often bunched in clusters in several areas around the lake. These fish reefs are marked and utilized heavily by anglers. The same reefs are supplemented annually.

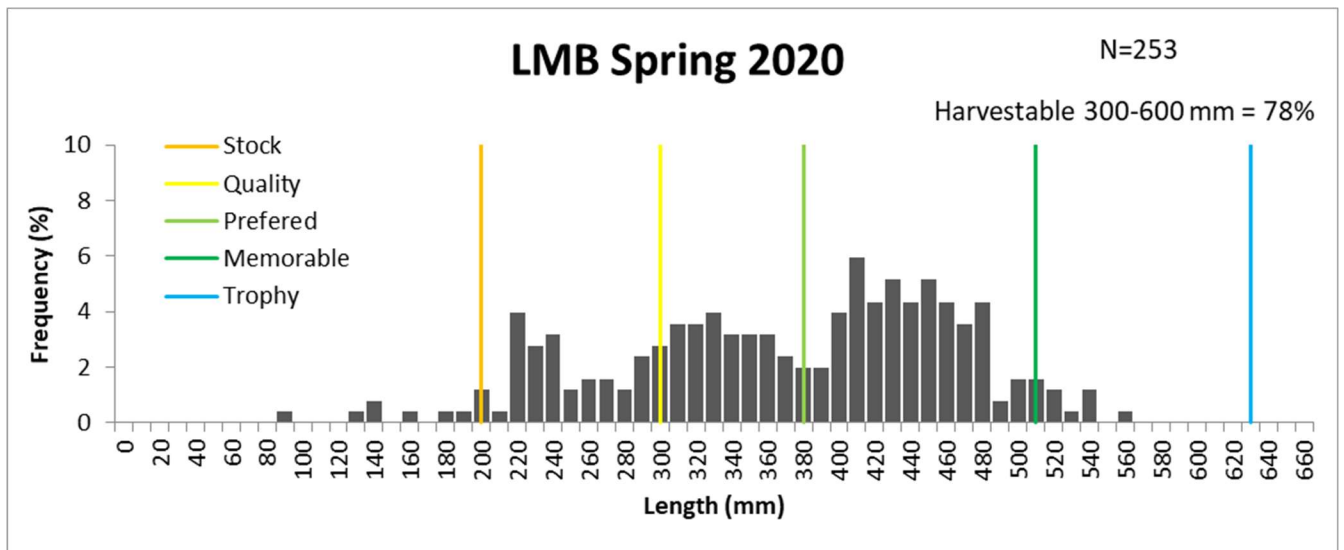
For years, we have been battling the predator-crowding issue. Attempts to correct this have included, more liberal predator harvest by anglers, increased electrofishing harvest, shoreline rotenone of YOY LMB, supplemental forage, etc. We have found that turning around a PFL in Alabama from a stagnant, predator-crowded condition is nearly impossible. Therefore, upon renovation of lakes, we have begun several strategies to reduce or post-pone this predator-crowded condition. The stocking strategies include, stocking bass relative to the littoral habitat in the lake rather than surface area, increased bluegill stocking rate, and establishing supplemental forage.

We have also found that it is very difficult to encourage anglers to remove small bass and return the larger ones. Even when length limits are in place, larger fish are often removed. When these larger fish are removed regularly on a popular lake, it doesn't take long for the bass distribution

to become skewed toward smaller fish. With fewer large bass to control YOY production, recruitment just continues to increase.

Below is a summary of the management of DeKalb PFL using these new strategies following renovation (summarized by Nathan Aycock):

Dekalb County Public Fishing Lake is a 120 acre impoundment located in the northeast corner of Alabama. This lake is now in its fifth year after being renovated and restocked in 2015. Initial stocking of bass was lowered to 30 fish/ac because stocking was based on acres of summertime littoral habitat instead of total surface acres. Bream were stocked at traditional rates (bluegill were stocked at 900 fish/ac and redear at 100 fish/ac). After reopening in 2016, bass harvest was prohibited while bream, catfish and crappie harvest remained open. The innovative stocking strategies coupled with the prohibition of LMB harvest has adequately protected the initial cohort of bass and has produced an excellent bass fishery. Spring electrofishing in 2020 found a bass PSD of 80 and bluegill PSD of 24. Catch rates for bluegill were 379 fish/hr, while catch rates of bass were 159 fish/hr. Catch rates of sub-stock and stock sized bass remained low (4 fish/hr and 31 fish/hr), while catch rates for preferred and memorable sized fish increased to 76 fish/hr and 8 fish/hr. Fall electrofishing in 2020 indicated a continued increase in the number of memorable sized fish, including 20 fish \geq 5 pounds in weight and one fish that was 9.2 pounds. In 2020, the regulations were changed to allow anglers to harvest up to 5 bass less than 13 inches per day. Based on length frequency analysis, this should allow the harvest of all age-1 bass and the slower growing age-2 fish while protecting the faster growing age-2 fish and all preferred and memorable sized fish. Anglers have been very supportive of the management strategies thus far, and angler use of Dekalb County Lake is one of the highest in the Alabama Public Fishing Lake program.



Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Arkansas

Name of Representative to Technical Committee: Brett Timmons

Date Submitted: 01/04/2022

Project Name or Description: Artificial vs. Woody Habitat Evaluation Research Project

Objective: Evaluate species composition and size structure of fish using each of the types of fish habitat

Current Status: Sampling completed and data being analyzed

Abbreviated abstract:

District 10 Central Arkansas

Lake Cargile – Acreage: 125

Lake Cargile is a 125 acre, Arkansas Game and Fish Commission (AGFC) owned lake located in Conway County near Hattiesville. The lake is located on the Ed Gordon/Point Remove Wildlife Management Area. This is a 3-year project that we are comparing species composition and size structure from cedar tree piles and MossBack structures. In year two, we used two methods to evaluate these types of brush piles (angling and electrofishing). In year three, the electrofishing portion of the study has been completed but due to low catch data, the angling portion of the study has been eliminated. Biologists are currently analyzing data for the project.

Additional State Reporting

District 3 Northeast Arkansas

Natural State Pond Seminar

Brett Timmons, District 3 biologist and Justin Homan, District 4 biologist collaborated with the AGFC Aquatic Resources Education (ARE) program, University of Arkansas at Pine Bluff to hold the Natural State Pond Seminar. The seminar was part of a monthly virtual series created by the ARE. The seminar covered a range of topics from the role AGFC biologists in farm pond management, Coffee shop misinformation (Baitfish Regulations, wild fish stocking, use of grass carp), fish stocking and management to basics of nuisance aquatic plant control. The seminar was hugely popular and got 721 registrants from across the state. Unfortunately, the seminar participants got capped at 110 live participants, but it was considered a noteworthy success.

Lake Charles – Acreage: 574

Biologists performed spring electrofishing for Largemouth Bass populations utilizing the AGFC standard sampling protocols (SSP) for Black basses. Age and growth assessment was completed

to assess existing regulations on the lake. Preliminary assessment indicates CPUE of 83 fish/hr., PSD and PSD-P of 64.2 and 47, respectively and TAM of 37%. Biologist performed crappie trap netting on the lake completing year 2 of a population assessment. The assessment follows a five-year removal of the daily creel for crappie. A seven-month access point creel of the lake was also completed assessing anglers use, harvest, knowledge of fish attractor sites, and live scope usage. Biologists and staff created 10 new fish attractor locations and improved five existing locations using a mixture of spider buckets and Christmas trees.

Working in collaboration with the Arkansas Environmental Quality (ADEQ) division of the Arkansas Department of Energy and Environment biologists monitored water quality of the lake quarterly. Biologists are assisting with collecting water samples for ADEQ to monitor recreation use lakes across the state.

Mallard Lake – Acreage: 328

Biologists performed spring electrofishing for Largemouth Bass populations utilizing the AGFC standard sampling protocols (SSP) for Black basses. During the spring sampling only nine LMB were collected so sampling was performed again in the fall. In the fall, only 10 LMB were collected.

Lake Frierson – Acreage: 338

Biologists performed an access point creel survey utilizing game cameras to assess use of the lake during peak fishing seasons to assess whether a maned creel survey would provide the minimum number of interviewees per the AGFC standard sampling protocols (SSP) for creel surveys.

Lake Ashbaugh – Acreage: 435

Biologists performed spring electrofishing for Largemouth Bass populations utilizing the AGFC standard sampling protocols (SSP) for Black basses.

Lake Poinsett – Acreage: 342

AGFC biologists collaborated with AGFC Stream Team biologist, and Harrisburg East lab to plant the 200 bald cypress tree saplings along the upper edge of the riprap to replace habitat removed during construction and help to improve the stability of the shoreline. As the trees mature, their root system will intertwine and help to maintain the stability of the soils around the lake. AGFC hopes these trees will begin to reproduce in the lake to create future fish habitat and improve the stability of the shoreline for future generations. Thirty-eight students helped plant the cypress trees along 6,308 linear feet of shoreline.

District 5 Southeast Arkansas

Lake Saracen- Acreage: 470

The Largemouth Bass population was sampled with daytime electrofishing on March 29, 2020. All 10 sites were sampled to ensure adequate numbers of fish for calculating population and structural indices.

Lake Enterprise- Acreage: 200

The Largemouth Bass population was sampled with daytime electrofishing from November 29th-December 1st to collect genetic clips for determining the frequency of Florida Largemouth

Bass alleles in the population. All 25 sites were sampled to ensure adequate numbers of fish for genetics and calculating population and structural indices.

The Channel Catfish population was sampled using tandem baited hoop nets from May 3rd -6th.

Lake Enterprise was treated with 9 gallons of Diquat on April 19th and 4 gallons on July 20th to control Duckweed.

Lake Wallace- Acreage: 347

The Largemouth Bass population was sampled with daytime electrofishing from November 15th- November 19th to collect genetic clips for determining the frequency of Florida Largemouth Bass alleles in the population. All 37 sites were sampled to ensure adequate numbers of fish for genetics and calculating population and structural indices. Lake Wallace was treated with a total of 5 gallons of glyphosate on September 30th to control Water Hyacinth.

Wilson Lake- Acreage: 139

The Largemouth Bass population was sampled with daytime electrofishing on November 22nd to collect genetic clips for determining the frequency of Florida Largemouth Bass alleles in the population. All 13 sites were sampled to ensure adequate numbers of fish for genetics and calculating population and structural indices.

Lake Grampus- Acreage: 308

A fish kill attributed to low dissolved oxygen was investigated on November 5th. A total of 246 fish were counted with the majority being Bluegill and Gizzard Shad. Dissolved oxygen was measured and found to be low, with the mean DO level being 3.1 mg/L. A follow up investigation was conducted on December 2 and the mean DO level had rebounded to 8.5 mg/L. Contractors were hired to spray herbicide to treat Water Hyacinth on Lake Grampus a total of three times from April to May. A total of 250 gallons of Glyphosate was used throughout the year.

District 6 South Central Arkansas

Tri-County Lake - Acreage 280

A 3-4 foot drawdown was conducted on Tri-County Lake to allow large equipment access to deepen areas and reslope the bank between earthen fishing jetties. The lake was pulled down in late July to allow for drying of the sediment before work began and the lake was allowed to begin refilling in December, shortly after the work was completed. Over time, the banks in these areas had eroded, shallowing the area to less than a foot or two in depth, which led to a marked increase in aquatic vegetation over the year. Deepening the areas between the jetties and steepening the slopes will help inhibit vegetation growth in these popular bank-fishing areas.

District 8 West Central Arkansas

Lake Wilhelmina – Acreage: 200

Biologists sampled the lake using Tandem Baited Hoop Net Sampling to assess the Channel Catfish population.

Cox Creek – Acreage 265

Biologists performed springtime electrofishing for Largemouth Bass populations utilizing the AGFC standard sampling protocols (SSP) for Black basses.

Gurdon Lake – Acreage 50

Biologists performed springtime electrofishing for Largemouth Bass populations utilizing the AGFC standard sampling protocols (SSP) for Black basses.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Georgia

Name of Representative to Technical Committee: Tim Bonvechio

Date Submitted: 1/14/2022

Project Name or Description: Ocmulgee PFA

Contact Information:

Name: Tim Bonvechio

Co-Authors: Daniel Stout

Email: Tim.Bonvechio@dnr.ga.gov

Phone: 912-285-6484

Objective: Manage the current trophy bass lake.

Current Status:

- **Abbreviated abstract:** Ocmulgee PFA is a relatively new PFA (Impounded for a second time in January 2017), and is a 106-acre small impoundment. Over the past 5 years, the lake has received a low density stockings (almost 21 per acre total) of advance female Georgia strain largemouth bass (Florida allele percentages of 70 to 100%). These female bass average 10 inches or more in length when stocked. The lake is fertilized, and was initially stocked with bluegill, redear sunfish, golden shiners, threadfin shad, and lake chubsuckers for forage. The lake is stocked annually with bluegill, golden shiners and lake chubsuckers to increase largemouth bass growth. The bass are protected from harvest with a catch-and-release regulation to allow the fast-growing females to live long enough to reach trophy size. Unfortunately, reproduction and male bass were documented in the lake. Each bass is PIT tagged to identify individual growth rates and document reproduction. With recruitment, there is approximately 26 or so bass per acre now in the small impoundment. All non-tagged fish will continue to be culled from the population in an attempt to keep the population in check. Sampling with (Hook and line and Electrofishing) revealed 10 bass over in 10lbs in 2020. In 2021, the same gear turned up 4 over 10lbs. The current lake record largemouth bass stands at 10lbs & 10.56 ounces, caught by Orville Newlin of Bonaire on May 29, 2020. Several bass larger than the current angling record have been sampled with electrofishing by DNR personnel and record growth has been documented (See below). A year-long access creel survey is planned in 2022 to look at angler catch rates, etc...

- **CHECK OUT THIS LUNKERS STORY!**

- Pit tag # 20011729892 was stocked on 2/5/17 as a 11-month old (285 mm TL, 335 g.) from Richmond Hill hatchery.
- Recaptured with electrofishing on 2/13/19 as a 3-year-old (555 mm TL, 3500 g.)
- 7.82lb – 3-year old!
- Then re-caught again while electrofishing on 2/19/2020 as a 4-year-old (609 mm TL, 5900 g.)
- 13lb – 4-year old!
- This is record growth!
- Most popular post on WRD Facebook on March 5, 2020. *2,300 likes, 601 comments & 1,570 shares



Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Kentucky

Name of Representative to Technical Committee: Dane Balsman

Date Submitted: December 6, 2021

Project Name or Description of Activities: Overview of the Fishing in Neighborhoods (FINs) Program

Co-Authors: Dane Balsman

Email: dane.balsman@ky.gov

Phone: 502-892-4480

Objective: To develop high quality urban fisheries in Kentucky that lead to high angler use, catch rates, and satisfaction.

Current Status: Ongoing

During 2020, 154,000 catfish (channel catfish and channel catfish x blue catfish hybrids) and 119,250 rainbow trout were stocked in the Fishing in Neighborhoods (FINs) lakes. These stockings of large keeper-size catfish (15 in avg), trout (10 in avg) provide anglers with quality fishing opportunities close to home. The program currently includes 45 lakes in 28 counties. A memorandum of agreement is in place with all lake owners enrolled in the FINs program giving Kentucky Department of Fish and Wildlife Resources (KDFWR) the authority to manage fish populations and set standardized regulations for all lakes in the program.

Advertising and marketing efforts were employed in a continuing attempt to raise awareness of the FINs program, increase participation, and recruit new anglers. Facebook and Twitter notifications were posted around stocking dates. District fisheries biologists also mentioned the FINs program and stocking schedules in their weekly fishing reports. A video segment highlighting the FINs program was also featured on KY Afield. Flyers promoting the FINs program were distributed at boat shows. A one-page advertisement for the FINs program appeared in Kentucky Fishing and Boating Guide. Additionally, a one-page stocking table appeared in the Kentucky Afield calendar. Newspaper, magazine and radio interviews, as well as press releases, were issued to promote the program. All lake owners were notified prior to fish being stocked so they could contact their followers via social media. The FINs website was routinely updated to convey the latest stocking information and list of lakes enrolled in the program. Kiosk posters promoting the FINs program and KDFWR's role in fish management and stocking was displayed at 25 of the 45 lakes. Information on the kiosk posters included the

FINs logo, mission statement, fish stocking dates and quantities, license requirements, fishing regulations, fish identification, poacher hotline, no littering graphic, brief overview of fishery and past sampling, basic knot tying and the location of a rod loaner program if present.

Spring electrofishing is conducted at every lake on an every other year basis. Samples are conducted to gather information on species composition, catch rates, and size structure. Furthermore, tandem hoop nets are used to sample catfish populations in the fall at every lake, every three years to monitor standing stock and condition of catfish.

Furthermore, exploitation studies, creel surveys, and use of time-lapse cameras to assess fishing pressure have been used to assess angling pressure at FINs lakes. Time lapse cameras have been deployed at 42 of the 44 lakes for a 12-month period to survey fishing pressure in recent years. Timelapse Image Analyzer was used to assist personnel with image analysis.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Kentucky

Name of Representative to Technical Committee: Dane Balsman

Date Submitted: December 6, 2021

Project Name or Description: Can channel catfish nesting boxes replace stocking in small impoundments?

Contact Information:

Name: Tom Timmerman

Co-Authors: Jeff Crosby, Marcy Anderson, Jeremy Shiflet

Email: tom.timmerman@ky.gov

Phone: 606-783-8650

Objective: Because channel catfish are not able to produce self-sustaining fisheries in small impoundments, KDFWR has been experimenting with artificial nesting boxes as a replacement to stockings.

Current Status: Ongoing – Project is in its early phases with 4 of the 5 lakes in the project just completing their second season in the water. Usage of boxes is being observed. Catfish are being sampled with hoop nets and trot lines for age and growth to determine if recruitment is occurring.

Abbreviated abstract: In most small impoundments, channel catfish do not produce a self-sustaining population of fish and anglers are reliant on state agencies to stock fish in order to maintain a fishable populations. The limiting factor in most instances is a lack of spawning habitat such as: hollow logs, undercut banks and rock crevices. Several other states have experimented with adding artificial spawning habitat in the form of nesting boxes to their lakes and have had success in creating habitat necessary to have self-sustaining fish populations in small impoundments. With hatchery space limited and expense of raising and stocking these fish high, alternative strategies for providing fish to small impoundments is of particular interest to state agencies. If channel catfish can self-sustain through artificial nesting boxes, then hatcheries can be freed up to use space and funding for other projects. The goals of this project are to (1) determine if artificial nesting boxes can create a self-sustaining population of channel catfish and (2) if so what rate of boxes are needed to maintain high quality populations of channel catfish.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Louisiana

Name of Representative to Technical Committee: Daniel Hill

Date Submitted: 1/3/2022

Project Name or Description: LDWF Standard Small Impoundment Sampling for 2021

Contact Information:

Objective: Update Louisiana's Small Impoundment Sampling for 2021

Current Status: Updated

Abbreviated abstract:

In Louisiana, technical advice to owners of ponds and small lakes is a part of the responsibility of the Inland Fish Division. Division biologists make several site visits assisting residents of the state on problems ranging from construction and stocking requirements, to harvest and disease identification. The biologists also answer numerous phone inquiries about various pond-related problems on a yearly basis.

Nuisance aquatic vegetation is a problem in most small impoundments. Biologists provide advice and technical assistance as well as aquatic plant identification assistance for pond owners on request. Inland Fish division also issues triploid grass carp permits to individuals that have nuisance submerged aquatic vegetation issues.

Louisiana has not provided fish to private pond owners since 1988. Private pond owners are given a fingerling producers list where they can purchase fish. In addition, a pond management guide is offered to these individuals for helpful management ideas. This producer's list and pond management booklet is on our web site www.wlf.louisiana.gov.

The Office of Fisheries has developed a community-fishing program for LDWF, called "Get out and fish". Within this program, LDWF identifies potential opportunities to bring fishing access to municipal areas as well as suburban and rural communities. LDWF believes fishing should be a readily accessible activity to all Louisiana residents and that the development of community fishing opportunities significantly increases access to quality fishing. LDWF will only support community-fishing opportunities that allow open access to the public, with particular attention to access typically in short supply; shoreline angling and accessibility to the handicapped. For the

purposes of this program, a public waterbody is one that is no more restricted to the public than to any other group or individual. The objectives of this program are as follows:

Increase the number of recreational fishing opportunities and participation in recreational fishing each year

1. Develop cooperative relationships with local government and community organizations to provide community fishing opportunities
2. Develop and/or maintain a fishery that will provide the opportunity to catch fish
3. Provide training and educational opportunities to teach children and adults how to fish and enjoy other related aspects of nature
4. Develop and increase anglers' and nonanglers' environmental awareness and conservation ethics in the community

Sampling and Stocking for Louisiana Small Impoundments:

2021 LDWF Standardized Sampling

Sample Type	Waterbody	Acreage	Spring	Summer	Fall	LEAD	LMB Genetics	LMB Stock
STANDARDIZED ELECTRO FISHING	CHATHAM LAKE	150	2		2 + 2F	1	X (Fall)	X
	Horseshoe Mer Rouge	133		3				
	Woolen	240	3	3 + 3F				
	University	195	4	4 + 4F				X
	NEW ORLEANS CITY PARK LAKE	120	4	4 + 4F				
	LITTLE ALABAMA BAYOU	45			2 + 2F			
SPECIAL SAMPLES/Exotic Species	BAYOU ST JOHN	120		2	2 + 2F			

F =
Forage
Samples

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: Maryland

Name of Representative to Technical Committee: Matt Sell

Date Submitted: December 26, 2021

Project Name or Description: Multiple sites ongoing

Contact Information:

Matthew Sell
Western Region I, Manager
Fishing and Boating Services
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Objective/Current Status/Abbreviated abstract:

Freshwater fisheries management in Maryland is divided into five management regions. Each region has a regional manager and two supporting biologists. They are responsible for both coldwater and warmwater fishery management within their respective regions, which includes small impoundments. Development of standard operating procedures, coordination of field projects, and staff support is done by the Field Operations Manager.

Matt Sell has recently taken over the position of the West I Region Manager (Garrett and Allegany Counties) following the retirement of Alan Klotz. Matt has agreed to represent the Freshwater Fisheries and Hatcheries Division (FFHD) on the Southern Division of AFS Small Impoundments Technical Committee.

The State is in the process of updating its Standard Fish Sampling Procedures for Surveying Maryland Impoundments. Two notable changes include the use of mark-recapture population estimates in small impoundments to improve the precision of abundance estimates and habitat mapping using side scan sonar. A workable procedure for field image collection, file transformation, and georeferencing sonar images is still being worked out.

In addition, efforts within the State of Maryland are being made to concretize collaboration between MDE's Watershed Protection, Restoration, and Planning Program (WPRPP) to implement TMDLs and FFHD on water quality and fisheries in the State's small impoundments.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: North Carolina

Name of Representative to Technical Committee: David Belkoski

Date Submitted: January 7, 2022

Project Name or Description: Lake Wheeler Fishing Trail Installation

Contact Information:

Name: David Belkoski

Co-Authors: Mark Fowlkes

Email: david.belkoski@ncwildlife.org

Phone: 910-580-2288

Objective: Install a fishing trail to enhance fishing opportunities and to educate youth bass anglers on seasonal fishing changes

Current Status: Complete

Abbreviated abstract: Lake Wheeler is a city park located 10 miles SW of downtown Raleigh, NC. The park allows for many recreational activities in a close vicinity to Raleigh and is used heavily by multiple community groups. The lake itself is 650 acres with a maximum depth of 20 feet. While the lake allows boats with outboard motors there is a large contingent of kayak anglers that also utilize the fishing opportunities. The North Carolina Wildlife Resources Commission (NCWRC) partnered with Raleigh Parks, Boy Scouts of America, and B.A.S.S. to enhance fishing opportunities on Lake Wheeler while also promoting an educational aspect to standard fish attractor placement. Spider blocks, bass jacks, and polytrees were placed at 11 locations at depths ranging from 3 to 20 feet. Each location is designed to target bass during different seasons but can also be fished in a “golf course” style, where anglers can move from one location to the next in numerical order. Shallow locations are best utilized during spring and fall, deep locations for summer and winter, and intermediate depths can be fished all year round. The goal of the project is to enhance fishing opportunities for all recreational groups but will most benefit bank anglers and kayak anglers who may not have access to a boat or depth finder. Youth anglers will have locations that are easily identified by buoys and will learn how and when to fish certain locations. This fishing trail was installed March 20, 2021 and has been utilized by anglers for the rest of the year.

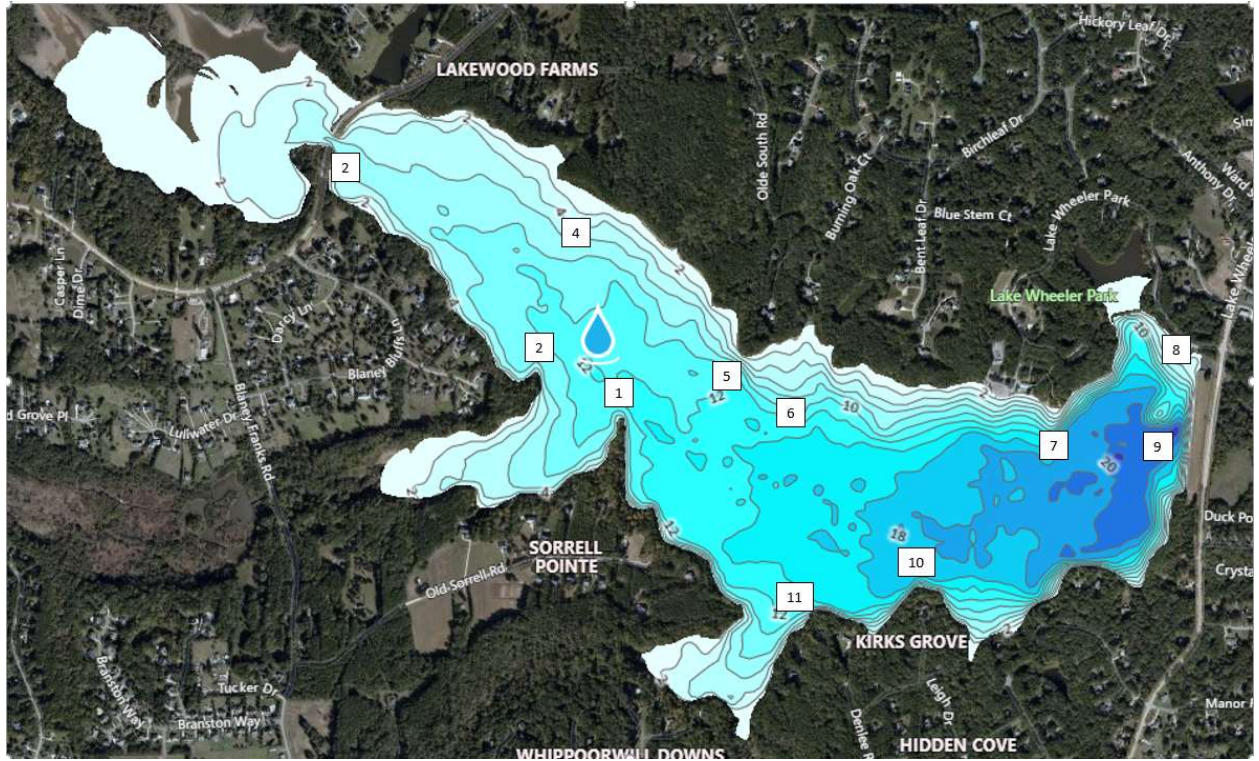


Figure 1. A map of Lake Wheeler and locations where fish attractors were placed for the Lake Wheeler Fishing Trail.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Oklahoma

Name of Representative to Technical Committee: Keith Thomas

Date Submitted: January 6, 2022

Project Name or Description: Close to Home Fishing Program (CTHFP)

Contact Information:

Name: Keith Thomas

Co-Authors:

Email: keith.thomas@odwc.ok.gov

Phone: 405.325.7288

Objective: R3 - Recruit, retain and reactivate anglers

Current Status: Second year of five-year plan

Abbreviated abstract: Urban Fishing Program Update

The City of Blanchard constructed a 2 acre pond fishing and signed a 10 year cooperative agreement with the OK Dept. of Wildlife Conservation. An aeration system was purchased and installed to help with fish growth and nutrient removal. Park benches were also purchased and distributed to cooperators for angler use around several ponds.

Fish populations at 5 program ponds were heavily sampled during 2021. Methods included shoreline seine, baited hoop nets, trap nets, and electrofishing. Collected fish were sorted, counted, weighed, measured and hole punched. Raw data was entered into EXCEL spreadsheets and uploaded to the Oklahoma Fish Analysis Tool (OFAT) for further study. Analysis is ongoing.

Angler creel surveys were conducted at 2 CTHFP ponds from April through August to determine pressure, catch and harvest amounts. Trail cameras were installed at the Oklahoma City trout pond to gather angler numbers. The trout season runs from December 1 through the last day of February. Low numbers were observed and the decision was made to move to 2 new program ponds for the 2021-2022 season. Both ponds are being monitored with trail cams and anglers are being interviewed as well.

Promotion of fishing opportunities at CTHFP sites utilized Twitter, Facebook and the agency website. Special e-mail messages were sent out to current and lapsed license holders announcing special events and fish stockings being held at program ponds. A total of 24 kids fishing derbies took place at several of the program ponds.

Nuisance aquatic vegetation events continue to evolve in several of these small, urban impoundments. Coontail was the most problematic weed this past summer followed by cattails. Coontail control methods included the application of Aquathol Super K (granular) with a rate of 3.0 ppm. Chemical control of coontail was fair. Late application may be the reason for limited control. Hand pulling and raking was more effective and safe. Cattails were mowed via boat with a gas powered brush blade and then sprayed with glyphosate. Good control was observed.

In 2021, 13,589 hybrid sunfish were stocked into 38 ponds. A total of 20,861 channel catfish were stocked into 25 ponds. Rainbow trout totaling 11,580 were stocked at 3 CTHFP sites. One thousand fingerling striped bass hybrids were stocked into a 20 acre borrow pit for the third year. An evaluation is underway. Anglers are reporting catching 3 and 4 pound hybrids. Discussions are ongoing to stock additional fish species into select ponds such as blue tilapia, yellow bullhead, hybrid striped bass, spotted bass and largemouth bass.

There are currently 25 cooperators participating in the program statewide. Agency strategic plan goals have been modified placing a cap on the number of cooperators due to manpower and cost constraints.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: South Carolina

Name of Representative to Technical Committee: Preston Chrisman

Date Submitted: 1/7/2022

Project Name or Description: SCDNR State Lakes Program

Contact Information:

Co-Authors:

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Phone: 803-280-0922

Objective: Provide diverse angling opportunities for the public

Current Status: Ongoing

Abbreviated abstract: The South Carolina Department of Natural Resources (SCDNR) currently manages 20 lakes under the State Lakes Program. These lakes range in size from 1 to 400 acres and display an array of management intensity levels due to a host of factors. Of the 20 lakes, 9 are limed and fertilized and there have been recent nuisance vegetation issues (Cattails, Bladderwort, Primrose, Parrot Feather, and Water Hyacinth) at 6 lakes, but these were sprayed and appear to be under control. Two lakes received extensive damage from floods resulting from hurricanes in 2015 (Lake Ashwood) and 2016 (Dargans Pond) and their dams were compromised. Lake Ashwood's dam was repaired, and a new gate valve was installed; the lake was restocked in 2019-2020 and reopened to the public July 1, 2021. Dargans Pond is owned by Clemson and the decision was made to not repair the dam so this lake will be removed from the State Lakes Program soon. A third lake, Lake Johnson, is also experiencing erosion issues and the water level has been reduced until repairs can be made and a new spillway can be installed. Sunrise Lake received a new spillway in 2017 and reopened to fishing July 1, 2019. While Sunrise Lake was drawn down for spillway replacement, a habitat improvement project was completed, adding gravel spawning beds, concrete culvert pipes, and PVC fish attractors to the lake. Lake Brown (hyper-eutrophic) had a severe cyanobacteria bloom in summer 2020, resulting in a minor fish kill and a South Carolina Department of Health and Environmental Control fish consumption advisory for the lake. Fish attractor sites are maintained on most State Lakes and receive periodic replenishment in the form of Christmas trees, bamboo, or artificial structures. Small trees were removed off the back of the dam on 6 lakes and repairs were made to fishing piers at 6 lakes.

The lakes' sport fish populations receive varying levels of monitoring and management due to manpower and budgetary restrictions. Some lakes are sampled annually while others are not able to be sampled effectively at all. Of the lakes that have had their fish populations sampled in recent years, most are displaying bass-crowded conditions. There are several trophy bass lakes in the State Lakes Program as well, but very few that display balanced conditions. Finally, there are a handful of impoundments that are little more than put-and-take catfish ponds. Many of the lakes receive annual Channel Catfish stockings as well as supplemental Bluegill and Redear Sunfish stockings to improve panfish fisheries and bass forage in the lakes. Threadfin Shad have been stocked into three of the lakes and early returns look promising.

Trying to combat the crowding of Largemouth Bass in these lakes is a top priority for lake managers but most efforts have been unsuccessful so far. However, SCDNR wants to provide wide array of angling opportunities and it is hoped that some lakes can be corrected to display balanced conditions while still maintaining some lakes in bass-crowded conditions for trophy panfish opportunities. Preliminary discussions have occurred within SCDNR to determine if we would like to try a female-only Largemouth Bass lake, following GADNR's recipe. Having clusters of State Lakes where there is at least one lake that is bass-crowded and one lake that is a trophy bass fishery should appeal to widest range of anglers and keep participation rates high.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: South Carolina

Name of Representative to Technical Committee: Preston Chrisman

Date Submitted: 1/7/2022

Project Name or Description: Largemouth Bass Removal Study

Contact Information:

Name: Preston Chrisman

Co-Authors: Dan Rankin (SCDNR), Dr. Chuck Cichra (University of Florida)

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Objective: Determine if heavy Largemouth Bass removal via electrofishing can be feasible as a short-term solution to bass-crowded impoundments.

Current Status: Entering evaluation phase

Abbreviated abstract: Largemouth Bass-crowded small impoundments are an increasing issue for lake managers, particularly in the southeastern United States. Reduced angler harvest and high reproduction rates lead to density-dependent reductions in growth and condition for Largemouth Bass while also reducing panfish recruitment to stock and quality length groups. We removed between 40% and 50% of the estimated Largemouth Bass populations in two small public fishing lakes (40 and 25 acres) in South Carolina during summer 2020 via electrofishing. One lake displayed promising results during the spring 2021 sampling period and no additional bass were removed. But the 25 acre lake continued to display crowded conditions for Largemouth Bass, particularly a large year class from 2020 as Age-1 fish. Forty percent of the estimated Largemouth Bass population was again removed from the 25 acre lake in 2021.

Sampling effort will be expended in spring 2022 to evaluate the success of the removal project at both lakes. Effort will then shift towards analysis and publication of the results. If successful, this Largemouth Bass removal project could serve as a template for SCDNR and other lake management groups to use for correcting bass-crowded small impoundments.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report Format

State Reporting: South Carolina

Name of Representative to Technical Committee: Preston Chrisman

Date Submitted: 1/7/2022

Project Name or Description: Outreach and inter-agency cooperation.

Contact Information:

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Objective: Provide pond management information to the public. Host youth fishing rodeos. Sample small impoundments that are not in the State Lakes Program.

Current Status: Ongoing

Abbreviated abstract: Budget reductions eliminated SCDNR's ability to conduct on-site pond management consult visits many years ago. Now, biologists can still perform nuisance vegetation identification and control sessions as well as water quality tests, but the pond owners must bring the samples to DNR offices. All regional offices perform these consulting sessions with pond owners and can provide recommendations on herbicide treatments, grass carp stocking rates, pond construction, and fish population management. Many pond owners are served every year in this fashion in-person or via email or phone conversations.

There are 33 youth fishing rodeos put on by SCDNR every year, including three that are hosted on lakes in the State Lakes Program. Nearly all these rodeos were canceled in 2020 and again in 2021 because of COVID-19. Channel Catfish are stocked in the week leading up to each rodeo and all kids that participate receive a rod and reel and a tackle kit at no cost and lunch is served to all the kids and their parents. Prizes are awarded for the biggest and smallest catfish caught and raffle prizes are also given away during each event. It is hoped that the fishing rodeos can resume in 2022.

SCDNR biologists also monitor sport fish populations and stock fish into small impoundments that are not within the State Lakes Program. These lakes can include lakes owned by SC State Parks, the US Forest Service, and/or local municipalities that provide angling opportunities for the public.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report

State Reporting: Tennessee (TWRA)

Name of Representative to Technical Committee: Mike Bramlett

Date Submitted: 1/7/2022

Project Name or Description: 2021 Small Impoundments Report

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Small impoundments in Tennessee consist of work with Agency Lakes, Community Fishing Program, along with the Winter Trout Program, Youth Fishing derbies, and Private Pond assistance.

Agency Lakes Program (ALP)

TWRA currently maintains eighteen public family fishing impoundments ranging from 20 to 560 acres, and are managed for bass, bream, crappie, and catfish. Three impoundments have the addition of hybrid stripe bass, and walleye. Ten lakes are under concessionaire operations. Most of the activities were routine, such as sampling and maintenance. ADA improvements on walkways, restrooms and fishing piers were made at five lakes. Fish habitat/attractors were added, or sites refurbished on eight lakes. Materials/designs consisted of corrugated PVC/concrete blocks, spider buckets, brush and stone piles, and stake beds. Trotlines, yo-yos and jugs were utilized on three lakes to evaluate population densities, recruitment and growth of catfish. Hoop nets were used to help evaluate catfish reproduction after catfish spawning structures were added. Bathymetric maps of eight lakes were finally completed which will be useful to anglers and for habitat improvements.

While not directly in the ALP, fisheries staff assists with the management of state park lakes, which are under the control of the Department of Environment and Conservation (TDEC). Most of these impoundments are not intensively managed, and much of the work on them centers on surveys, creel/size limits, stocking, and aquatic vegetation control. Regulation changes were made on most of Region 3 State Park Lakes to reflect management goals and simplify fishing

laws. These changes will go into effect March 2022 and include removal of minimum length limits of largemouth bass and combining the creel limit of bluegill and redear sunfish to 20 fish per day. Habitat improvements, mapping, fish stockings, and age and growth analysis are planned for 2022. The agency has partnered with TDEC to intensively manage five lakes to improve the fisheries as part of the Tennessee fishing trail lakes. Work continues with fish population assessments, management plans, fish stockings, fish feeders, and habitat enhancements.

Community Fishing Program (CFP)

The CFP continues to bring fishing opportunities to municipal/urban areas as well as suburban and rural communities, by working with local/county government and community organizations. It seeks to increase the number of anglers with access to fishing “closer-to-home”. There are currently 17 impoundments in the program ranging from 2 to 30 acres. Most are managed using statewide regulations for bass and bream, with stocked species consisting of channel catfish and/or trout. Bathymetric maps were also completed on three of these lakes, with plans to do more this year. Our R3 coordinators held multiple “how to and get out and fish” events at five lakes during April through July.

Two lakes, Fall Creek Lake and Kelly Lake received some serious fish management in 2021 including habitat improvements, supplemental feeding, stocking, regulation changes, age and growth analysis, and routine electrofishing. One hundred sixty-five habitat structures (from Mossback, Pond King, and American Fish Tree) were installed. Eight solar-powered fish feeders from Texas Hunter Products were placed along the shoreline of these two lakes, and a mix of floating and slow-sinking pellets of various sizes were dispensed at dawn and dusk during spring and fall months. The crew also employed side-scanning sonar to create bathymetric maps for angler use and to aid managers with habitat structure placement. The 15-inch minimum length limit of Largemouth bass on Kelly Lake will be removed, and a 20 fish per day creel of bluegill and redear sunfish will be added March 2022. No regulations changes were made on Fall Creek Falls Lake. Supplemental feeding on both lakes will continue in 2022 along with additional habitat installation and monitoring of current management strategies.

Work also continues to identify small impoundments in “distressed” counties that could be enhanced for fishing. This includes investigating access, amenities, fish population structure, habitat, and economic status of the surrounding area.

Winter Trout Program

The program stocked approximately 30 small impoundments across the state with rainbow trout during the months of December through March. These lakes are generally less than 10 acres with easy access. Approximately 53,000 rainbow trout, averaging 10 inches are stocked during this four-month period, with a daily creel limit of seven, and no size limit. However, there are discussions to maybe reduce the creel to five at several lakes. A trout license is required in

addition to a regular fishing license. Angler use has been steady or increasing, with trail cameras being used on multiple lakes to estimate angler effort/use. Creel surveys are also to be conducted on several impoundments.

Youth Fishing Derbies

Nearly 55,000 pounds of channel catfish (.75 – 2.0 lbs. each) were stocked into sixty-four waterbodies that had organized youth fishing derbies, along with sixteen community fishing lakes without an organized fishing event. An estimated 8,000 youth participated in the organized fishing derbies with approximately 68% catching at least one fish.

Private Pond Assistance

Technical assistance is provided to private pond owners over the phone, printed materials, and website. Onsite assistance is given on a case-by-case basis depending on the issue, because of limited time and manpower. Otherwise, we give them contact information of private pond consultants. The agency does not stock fish into private waters but provides those requesting fish stockings the contact information of private pond stockers.

Small Impoundments Technical Committee

American Fisheries Society – Southern Division

State Report

State Reporting: Texas

Name of Representative to Technical Committee: Cynthia Fox Holt

Co-Authors:

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Date Submitted: 01/06/2022

Project Name or Description of Activities: Texas has over 1,000 public small impoundments that range in size from 0.1 – 500 acres. These are typically controlled by local governments (cities, townships and counties), who partner with us to manage recreational fishing opportunities across the state. Many small impoundments are focal points in small communities and serve as a great attraction for residents while, others are spread throughout major metropolitan areas and serve as close-to-home opportunities for our fastest-growing demographics. These waters play an important role in our state’s R3 initiatives. The degree of management varies among sites, ranging from simply “put-and-take” seasonal fisheries to intensively managed diversified angling opportunities. Many of these receive fish stockings to sustain fishing activity. Species stocked in small impoundments were mainly Channel Catfish, Rainbow Trout, Largemouth Bass, and sunfishes, providing excellent fishing opportunities for Texas anglers.

Texas Parks and Wildlife Department (TPWD) partners with waterbody controlling authorities, local vendors and interest groups and educational institutions to plan, fund and complete management activities on small impoundments across Texas. Management activities in small impoundments in 2021 consisted of fish community and vegetation surveys, vegetation treatments, fish stockings, construction and installation of spawning structures, shoreline stabilization, aerator installation to improve water quality, and habitat enhancement with native vegetation and various types of artificial structures. These projects are often partially or wholly supported by TPWD Conservation License Plate (CLP) or Habitat and Angler Access Program (HAAP) funds. Twenty-eight CLP funded and 21 HAAP funded projects were approved in 2021. Of those 49 projects, 17 projects were for small impoundments. For more information about CLPs, HAAP, and the projects they fund, please visit: www.conservationplate.org and <https://tpwd.texas.gov/landwater/water/habitats/habitat-angler-access-program/>.

Objective: Small Lakes

Current Status: Small lakes are typically between 75 and 500 acres, excluding those completely enclosed within state parks. These reservoirs may have regulated access and more

restrictions than our larger reservoirs to preserve water quality and wildlife populations. When necessary, TPWD will manage specific objectives in these small lakes, similar to large reservoirs, by monitoring, regulating, restoring fish habitat and improving angler access to enhance fishing opportunities. Supplemental stockings may not be required for these self-sustaining populations.

Management activities on small lakes in 2021 consisted of fish community assessments via nighttime and daytime electrofishing surveys, vegetation assessment and control projects, and habitat enhancement using native plants and various artificial structures.

Objective: Community Fishing Lakes (CFLs)

Current Status: These ponds are defined as a public impoundment ≤ 75 acres located totally within incorporated city limits, a public park, or any impoundment lying totally within the boundaries of a state park. There are approximately 830 known CFLs in the state, with numbers growing every year. Most CFLs are minimally managed for local anglers seeking a quick experience around their communities. Many CFLs receive annual stockings of Channel Catfish and Rainbow Trout, with many of these stockings tied with outreach fishing events, sponsored by partners. Fishing regulations for most CFLs align with statewide regulations, except those pertaining to catfish and fishing gear. Depending on size and popularity; some CFLs are managed more intensively to provide diverse fisheries objectives to attract a spectrum of angler preferences. Some have received habitat and access enhancements, tailored regulations, and highlight less traditional species in smaller impoundments. This complexity has sprouted the need to revise the definition and regulatory approach for this designation of public waters. A special committee was formed to evaluate the need and strategies for this objective moving forward. The committee conducted a statewide CFL angler survey in 2021. A total of 887 surveys were collected from anglers at 152 CFLs across the state. At the time of this report, survey data analysis is nearly complete. Once complete, the committee will use the results to develop new regulations for CFLs.

Objective: Neighborhood Fishin' Program

Current Status: Neighborhood Fishin' -is our premiere urban fishing program developed to bring quality fishing close to home. It consists of 18 (1-6 acre) CFLs located in parks of 11 major metropolitan areas. Ponds are stocked on a seasonal, biweekly schedule with Channel Catfish or Rainbow Trout eleven months of the year to maintain a 'put-and-take' fishery. This program is supported by numerous local government and private partners, including Gulf States Toyota and Sport Fish Restoration. Total program operating costs are ~\$550K per year at current levels. Fishing regulations are restrictive, intended to ensure success among as many anglers as possible. Sites have been carefully selected to provide diverse amenities to attract families and recruit new anglers to fishing. The program has been running strong for 19 years. For more information on NFPs, please visit: www.neighborhoodfishin.org.

Objective: Outreach and Research

Current Status: TPWD participates in a few hundred public outreach events each year, many of which pertain to youth and family fishing, continuing education courses for Master Naturalist groups, "How to Fish" workshops, and career days at elementary, middle, and high schools. In

addition to these in-person outreach activities, most Inland Fisheries districts utilize social media (Facebook and/or Instagram) as a tool to reach and educate our current and future anglers about Texas' natural resources. Since management reports are not often written for small impoundments, social media is a great way to communicate with Texas anglers about management activities for CFLs.

Small Impoundments Technical Committee
American Fisheries Society – Southern Division
State Report Format

State Reporting: Virginia

Name of Representative to Technical Committee: Steve Owens

Co-Authors:

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Phone: 276-783-4860

Date Submitted: 1/6/22

Project Name or Description of Activities: 2022 Small Impoundment Reports

Objective:

Current Status:

District Biologists from around the state have utilized a variety of structures to create fish habitat in Department of Wildlife Resources (DWR) owned impoundments which includes: pallet teepees, Mossbacks, Christmas trees, PVC structures, hardwood brush piles, and hinge trees. SCUBA has been used at several sites to evaluate habitat preferences of gamefish. Hardwood brush piles and PVC structures seem to hold the most fish, while hinge trees and pallet teepees are occupied by the largest fish. Mossbacks have been highly effective in holding large numbers of panfish in addition to a fair number of bass.

Channel Catfish spawning boxes have been placed in a half dozen DWR owned impoundments over the last few years. Biologists have found 100% usage during the spawning period with males present guarding eggs or fry. Staff is currently conducting a tagging study on several small impoundments that receive annual Channel Catfish stockings to see if any naturally spawned CCF are recruiting to the fishery. Preliminary results have documented successful reproduction, but recruitment to the fishery appears to be limited and routine stockings of catchable CCF are warranted to maintain desirable catch rates.

DWR rolled out a FishLocalVA program to expand on the already successful Urban Fishing Program throughout more of the state. This program is looking to incorporate some of the components of the current Urban Fishing Program when appropriate (Trout and Catfish stocking components) while working with local communities to increase outdoor recreation and fit into DWR's R3 strategy.