

Project Title: Arkansas Invasive Carp Market Stimulation Project

Geographic Location: Locations where commercial fishers can harvest invasive carp and receive per-pound subsidies through this program include all waterbodies of Arkansas, within the Arkansas-Red-White River Sub-basin, which are open to commercial fishing. These waters include the Arkansas River (Pools 4, 5, 6, 7, 8, 9, 10, 11, 12, & 13 to the Oklahoma state line), White River (from the confluence of the Little Red River to the confluence of the Black River), Black River, Red River, Sulfur River, and Little River; their tributaries, backwaters, and oxbow lakes

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Participating Agencies: Arkansas Economic Development Commission (AEDC), Ben Walters, BWalters@arkansasedc.com

Statement of Need:

Populations of invasive carp (silver, bighead, black, and grass carp) have rapidly expanded throughout the Mississippi River Basin, and continue to increase their distribution in Arkansas waters. Management and control of invasive carp is necessary to reduce their impact on native species, the ecosystem, and the economy. In response to these threats, many states within the Mississippi River Basin have been working to find effective strategies to manage existing populations and control range expansion into adjacent aquatic systems.

Recognizing commercial harvest was the most efficient and effective means to remove invasive carp, the Arkansas Game and Fish Commission (AGFC) attempted to implement a contract fishing program in 2020, utilizing federal invasive carp grant funds. The goal was to hire up to four commercial fishermen to remove 800,000 pounds of invasive carp from the Arkansas and White River systems, within the Lower Mississippi River (LMR) and Arkansas-Red-White River (ARW) Sub-basins. At the time, Arkansas did not have a fish processor or other buyers that would accept invasive carp from our commercial fishermen, nor was there an established market for invasive carp in Arkansas. Contractors would be paid 20 to 30 cents per pound, which increased as poundage goals were met, to remove invasive carp. Free gear tags were offered to incentivize removal. Contract stipulations were restrictive, and included only allowing harvest of invasive carp, other commercial gear could not be fished within 15 miles of the access point, and all commercial tackle had to be provided by the commercial fisherman. In October 2020, letters were sent to all current commercial fishing permit holders (approximately 1,350), advising them of the contract availability. Nineteen commercial fishers communicated interest and were sent an RFQ. No commercial fishermen submitted proposals by the deadline date.

Subsequently, the AGFC amended the 2020 grants to implement an in-house removal program (AGFC Invasive Carp Removal Program). Removal efforts started in fall of 2021 and has continued to date. The program has removed over 138,000 pound of invasive carp and contributed valuable information such as range distribution, density, and size structure of

invasive carp in the Arkansas and White River systems. However, there is still a need improve effectiveness of removal efforts and significantly increase biomass removal from Arkansas waters.

Over the past three years, the states of Tennessee, Kentucky, and Illinois have successfully utilized harvest incentive programs to increase commercial harvest and processing capacity, which has resulted in millions of pounds of invasive carp being removed. Those states created a subsidy for invasive carp but use somewhat different ways to inject it into the market through existing commercial fishers and processors. In Arkansas, we have commercial fishers but no processors or developed market uses for invasive carp. This limits the commercial value of invasive carp, motivation for fishers to harvest invasive carp, and opportunities for fishers to sell large quantities of invasive carp harvested in Arkansas. To increase effectiveness of removal efforts, the AGFC desires to create an incentive program which provides subsidies to commercial fishers for harvesting and selling invasive carp, and encourages collaboration between fishers and wholesale fish dealers, processors, or other buyers to develop markets which increase demand and processes to receive carp caught in Arkansas. In addition, AGFC will partner with the Arkansas Economic Development Commission (AEDC) to help interested businesses expand processing capacity and market development into Arkansas. This project differs from past AGFC projects by allowing any licensed commercial fisher to receive subsidies for harvesting and selling invasive carp; all Arkansas waters, within the ARW, open to commercial fishing can be utilized; fish can be sold to any buyer for any price; fishers receiving incentives may also harvest and sell native commercial fish species; and a limited supply of start-up fishing supplies and equipment will be provided on a first-come-first-served basis to help incentivize harvest and aid fishers with providing quality fish for market product use. The AGFC has proposed an identical project in the Arkansas portion of the LMR Sub-basin this fiscal year, to cover all waters in Arkansas harboring invasive carp.

The activities outlined in this work plan address the following goal and objectives of the National Plan: Goal 3: Extirpate, or reduce to levels of insignificant effect, feral populations of bighead, black, grass and silver carps in the United States; Strategy 3.3.2. Increase the commercial harvest of Asian carps; Strategy 3.3.2.2. Increase the number of commercial fishers; Strategy 3.3.2.3. Examine commercial fishing regulations and consider changes to increase harvest; Strategy 3.3.2.4. Provide financial incentives to commercial fishers to increase harvest of Asian carps. It also addresses the following goals and objectives of the Lower Mississippi River Basin Asian Carp Control Strategy Framework: Goal 3. Population Control and Agency Response: Reduce Asian carp densities with the ultimate goal of extirpation of Asian carps; Strategy 3.2. Utilize commercial harvest and implement contract fishing of Asian carps to decrease densities; Strategy 3.3. State natural resource agencies will work within their authorities to increase opportunities for commercial harvest of Asian carps. States will work with commercial fishers, industry, and local communities to alleviate limiting factors (e.g., regulatory hurdles, low price, and proximity of processing plants) that might encourage more commercial fishers to target Asian carps; Strategy 3.4. States can assist, where appropriate, in the development of new markets for Asian carps. Markets should be expanded both within the United States and abroad.

AGFC is working to phase out the in-house removal program (agency removals) and shift removal efforts to commercial harvest. AGFC will outline conversion of agency removal efforts to re-direct existing staff, equipment, and future federal funding requests to support monitoring of commercial harvest to directly inform commercial fishing effectiveness and optimize control strategies. This project is needed to build capacity of commercial harvest as a primary means of biomass removal in Arkansas waters ahead of this planned transition.

Project Objectives:

1. Stimulate the commercial market for invasive carp in Arkansas through incentivizing subsidies to help control invasive carp populations.
 - 1.1. Implement a subsidy for invasive carp sales to attract commercial operators such as processors and wholesale fish distributors to Arkansas.
 - 1.2. Incentivize commercial fishers to target and harvest invasive carp.
2. Provide start-up supplies and access to equipment for licensed commercial fishers, wholesale fish distributors, or processors.
 - 2.1. Provide start-up fishing supplies such as gill nets, rope, and anchors to licensed commercial fishers.
 - 2.2. Provide licensed commercial fishers, access and use of equipment such as ice machines to help ensure wholesale fish distributors, processors, or other buyers receive quality fish for market product uses.
3. Create and administer subsidy program within the AGFC Fisheries Division.
 - 3.1. Provide salary for one staff to track invasive carp sales and other reporting mechanisms and submit forms for payments to commercial fishers. This staff addition will also work to administer requests for equipment start-ups.
4. Scope standards for monitoring invasive carp populations in Arkansas to evaluate the effectiveness of commercial fishing.
 - 4.1. Outline conversion of the Arkansas invasive carp control program to include monitoring which would:
 - 4.1.1. Develop an invasive carp population standard monitoring protocol.
 - 4.1.2. Revise invasive carp control program staff roles, as appropriate, to collect data which directly informs commercial fishing effectiveness and optimal control strategies.

- 4.1.3. By 2026, phase out AGFC Fisheries Division invasive carp control program (agency removals) once invasive carp commercial fishing is established and invasive carp population monitoring protocol can be implemented by existing Fisheries Division programs.

Project Highlights:

- Some local and out-of-state businesses have expressed interest in purchasing carp harvested in Arkansas.
- One local business has expressed intent to build capacity for buying, processing, and developing market products from invasive carp harvested in Arkansas.
- An existing part-time administrative assistant was retained in November 2023 to help develop process to track, verify, and submit for payment bills of sale submitted by fishers, and administer requests for start-up fishing supplies and access to equipment.
- Processes have been developed for tracking, verifying, and processing bills of sale submitted by fishers enrolled in the program for the \$0.18 per-pound harvest incentive.
- Start-up fishing supplies (i.e., gill net webbing and rope) has been identified and purchase orders were submitted for purchase.
- A program web page, housed on the AGFC website, is under development.
- Four meetings are scheduled in January to announce the Invasive Carp Harvest Incentive Program and begin enrolling commercial fishers.
- Resource needs limiting local business' ability to increase buying locations and capacity to buy carp from fishers in Arkansas includes certified scales, large totes for transporting carp to processing locations, ice, and equipment such as refrigerated trailers and forklifts to load fish for transport.

Methods:

The Aquatic Nuisance Species (ANS) Program Coordinator worked with AGFC Fisheries, Legal, and Fiscal Divisions to identify internal processes for enrolling commercial fishers in the Invasive Carp Harvest Incentive Program, and track and process payment for bills of sale received by fishers for per-pound subsidy payments. An existing part-time administrative assistant, currently working for the AGFC Fisheries Division, was retained in November 2023 to assist the Aquatic Nuisance Species Program Coordinator with developing a process to track, verify, and submit for payment bills of sale submitted by fishers, and administer requests for start-up fishing supplies and access to equipment. This person is housed at the AGFC Headquarters in Little Rock, and is directly supervised by the AGFC Fisheries Division Bookkeeper.

On October 11th, the ANS Coordinator and other AGFC staff participated in an Invasive Carp Harvest Roundtable meeting that was hosted by Arkansas Delta Community Connections in Forrest City, AR. The ANS Coordinator organized the meeting to present information on the invasive carp harvest incentive program, and brought together local community leaders, members of Arkansas Delta Community Connections, private industry, AEDC, and researchers to discuss ways to address barriers hindering commercial harvest and market use of invasive carp in Arkansas.

On November 2nd, the ANS Coordinator and other Fisheries Division staff hosted a meeting with commercial fishermen at AGFC Headquarter in Little Rock to solicit input on the invasive carp harvest incentive program.

The ANS Coordinator had several conversations with other state ANS Coordinators and staff overseeing carp harvest incentive programs in Mississippi, Missouri, Tennessee, and Kentucky to ensure harvest incentives offered to Arkansas commercial fishers would not conflict with their respective state programs, and learn about various support they are offering to fishers and businesses to help incentivize harvest and fish acquisition for market use. The ANS Coordinator reached out to several local and out-of-state fish markets and processors to inform them of our program, solicit interest in buying carp from Arkansas fishers, and identify limitations and needs they require to buy carp and establish buying locations in our state.

On December 19th, over 1,000 letters were mailed to people who purchased an Arkansas Commercial Fishing Permit in 2022 and 2023. The purpose of the letters were to invite fishers to attend meetings scheduled for January 2024 in Little Rock, Dumas, Magnolia, and Forrest City, where AGFC staff will provide an overview of the new Invasive Carp Harvest Incentive Program and begin enrolling fishers in the program.

Representatives with the Arkansas Economic Development Commission (AEDC) met with and provided guidance to a few businesses interested in developing a processing facility for invasive carp in Arkansas. This included assistance with identifying property, existing infrastructure, permits, and state grants and tax incentives available to help support new business development or expansion.

Results and Discussion:

Program development and implementation

A process was developed for tracking, verifying, and processing bills of sale from program participants for the per-pound subsidy offered through the program. A draft program enrollment form (i.e., affidavit and program terms and conditions) for fishers was submitted to AGFC Legal

Divison for review and approval in December. Also, a triplicate bill of sale was created and submitted for printing, for use by businesses who buy carp from program participants. This is not required, but provides a convenient option for buyers to use, since it already contains all bill of sale reporting information required for fisher participants to submit for subsidy payments. Development of a web page for the Invasive Carp Harvest Incentive Program on AGFC's website was initiated, which will provide an overview of the program, enrollment forms, contact information, images of invasive carp species, mechanism for fishers to track pounds of invasive carp remaining for subsidies, and AGFC contact information related to various aspects of the program. Quotes were obtained for purchase of gill net webbing and rope to provide fisher participants, and purchase orders were submitted. Meeting venues for announcing the program and enrolling fishers were reserved in Little Rock, Dumas, Magnolia, and Forrest City for January 17, 18, 25, and 26, 2024.

Fisher input and carp market development

Only 13 commercial fishers participated in the November meeting. Overall, feedback was positive and fishers expressed their interest in participating. The intent to provide gill net webbing and rope to fishers who enroll in the program to offset costs associated with targeting invasive carp was also well received by the group. The biggest concern expressed by fishers was market availability to sell carp.

By the end of December 2023, one local and two out-of-state businesses expressed interest in purchasing invasive carp harvested in Arkansas. The local business expressed intent to expand capacity to buy, process, and develop various products (e.g., human consumption products and protein powder) for domestic and international markets. The out-of-state businesses expressed a need for financial support to offset the cost of establishing buying stations within Arkansas and transport of carp to processing facilities. Mechanisms to further support fish acquisition will be proposed in FY24 Invasive Carp Management and Control grant funding requests.

Resource needs limiting local business' ability to increase buying locations and capacity to buy carp from fishers in Arkansas includes certified scales, large totes for transporting carp to processing locations, ice, and equipment such as refrigerated trailers and forklifts to load fish for transport

Future work toward project goals

Moving forward, we plan to begin program enrollment and complete development of the program web page in January 2024. Start-up fishing supplies (i.e., gill net webbing and rope) will be acquired and provided to fishers participating in the program. Also, supplies needed to help buyers acquire fish for market use will be purchased as business needs are identified and

prioritized. Random inspections of buying locations by AGFC staff will occur once carp sales initiate. AGFC will develop a plan to transition from an agency removal program to supporting and monitoring commercial harvest as a primary means of biomass removal in Arkansas waters.

Recommendations:

- Identify and submit funding requests through the LMR/ARW Sub-basin Invasive Carp Partnership to provide additional business support for increasing fish acquisition from local and out-of-state buyers during the FY24 federal grant funding cycle.
- Continue to identify businesses willing to buy invasive carp in Arkansas and factors limiting commercial harvest and market use.