

**U.S. Army Corps of Engineers
Fiscal Year 2013
Handshake Program Application**

Please review instructions before completing application!

Corps Lake/Project Name:**Smithville Lake/Smithville Lake Project**

Handshake Proposal Title:**Smithville Lake Habitat Enhancement Partnership (Reservoir Fisheries Habitat Partnership (RFHP))**

Corps POC Name:**Derek Dorsey**

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A. Eligibility checklist:

1. Is the seed money going to be spent at Corps facilities and resources that are being maintained by the Corps at 100% expense? * **Yes** **No**

2. Is the agreement with a non-federal public or private entity(ies)? * **Yes** **No**

3. Is the proposed activity within current authorities and contained in the annual or 5-year work plan in the approved OMP? ** **Yes** **No**

4. If no, when will the OMP be updated and approved? (example: Sept 10)

**If "No" to either question 1 or 2 the proposal cannot be authorized under the Corps' challenge partnership authority.*

*** If "No" to question 3 and the date provided in answer to question 4 would come after the commencement of your proposed challenge partnership your activity can not be authorized.*

B. Handshake Funding Program Request (maximum \$30,000): \$30,000

C. Cooperating Association Bonus: Challenge Partnerships that include a Cooperating Association with which your project/district has entered into a Cooperative Agreement are eligible to compete for an additional \$5000. You must include a copy of the signed agreement with your proposal. (Reference Chapter 9 of ER and EP 1130-2-500 for information on cooperating associations).

D. Incentive Points Category: Check the box if your Lake/Project qualifies to receive bonus points on the evaluation score for submitting partnership success stories/GETS. Also include an explanation of the GETS submittal and the date of submission below the check box.

Partnership Success Stories/Good Enough to Share Submittals: Facilities that provided at least one partnership success story from previous activities may qualify for bonus points. Please check box if you have submitted a GETS or Partnership Success Story in Fiscal Year 2012

E. Describe your partnership and the proposed project:

Your project will be evaluated on the following categories: Sustainability, Partnership Value, Recreation Benefit, Environmental Stewardship Benefit, Communication and Education Value, and Innovativeness. Please address each in your description.

Description:

Work Project Title: Smithville Aquatic Habitat/Shoreline Protection Program

Proposed Dates of work: Jan 2012-Aug 2013

Description of Work: The Project includes the development and construction of ten (10) to twelve (12) 70 ton rock pile aquatic habitat structures. These piles would consist of boulders of various sizes and, when available, large root boles. The project also includes the armoring of 2500-ft of shoreline with 4,965 tons of rock rip-rap to protect against erosion and provide increased water quality and habitat. As well, approximately 100 large hardwood brush piles consisting of 5-10 trees per pile and hinge-cut trees along approximately 7 miles of shoreline, will provide diverse habitat structure to the shoreline.

For the construction of the 10 – 12 rock pile aquatic habitat structures Partner 1 shall provide labor, equipment, and fuel, Partner 2 will provide materials, equipment, and labor. Partner 1 will provide labor, equipment, and fuel for the construction of the brush piles and hinge cuttings. Partner 2 will provide equipment and fuel for shoreline stabilization projects.

Background: Smithville Lake, Clay County, Missouri (39.395678, -94.555635). Smithville Lake is a 7,190-acre U.S. Army Corps of Engineer (USACE) reservoir located just north of Kansas City, Missouri. Smithville Lake was completed in 1982 and currently attracts thousands of water enthusiasts, including thousands of anglers, each year. The lake's primary purpose is for flood control and, as a result often experiences large water level fluctuations. Like many reservoirs across the county, fish habitat in the lake has significantly diminished since the reservoir was constructed. Repeated and long-term water level fluctuations have largely limited success. More than 4,000 acres of standing timber left intact when the lake was built to provide fish habitat have since degraded and provide only limited habitat for fish. The lack of suitable fish habitat is limiting the lake's potential to serve as a productive and diverse fishery. This project will be a continuation of an existing program started in the spring of 2012. The habitat enhancement and bank stabilization that has been already completed to date, is performing as planned. The partnership between U.S. Army Corps of Engineers, Clay County, and Missouri Department of Conservation is well established and has proven successful in achieving previous project goals.

Sustainability: The rip-rap and brush piles construction and placement would adhere to all guidelines using sustainable principles. Estimated lifespans of the structures includes approximately 10 years for the hardwood brush piles and indefinitely for the rock rip-rap and rock piles. In addition, this project sustains the U.S. Army Corps of Engineers mission and helps to meet both the America's Great Outdoors Initiative and The Recreation Strategic Plan. The project would also provide long term learning opportunities for local educational institutions (Avila University, Liberty High School, and Liberty North High School).

Partnership Value: The estimated project cost for materials and supplies necessary for aquatic habitat and shoreline protection is \$102,500. If selected for the Handshake Funds, Smithville Lake would use that money (\$30,000) for materials in the form of rock for the rip-rap and rock pile construction. Smithville Lake would provide \$41,807 in materials, labor, and equipment. The Missouri Department of Conservation would provide \$40,260 in materials, labor, and equipment. Clay County Parks and Recreation would provide \$43,180 in materials, labor, and equipment. Burton's Bait and Tackle would provide \$20,850 in volunteer labor. Therefore, if selected for the Handshake funds the grant funding would provide a total project value of over \$176,000.

Environmental Stewardship Value: The project will contribute to the improvement of natural resources by providing beneficial and long term habitat to the aquatic ecosystems in and around Smithville Lake. The brush and rock piles will provide refugia for numerous aquatic organisms insuring habitat diversity and enrichment. The bank stabilization rip-rap will provide habitat for many of the smaller organisms that populate the lakeshore. As well, the rip-rap will help to reduce the high levels of bank erosion that occurs around portions of Smithville Lake. The reduced erosion, helps to reduce the amount of silt settling in the lake and impacting water depths in some locations. The project also improves the Corps' Environmental Stewardship mission by providing increased recreational opportunities to the fishing, hunting, and boating activities that occur in and around the Smithville Lake.

Recreational Benefit: This project directly creates and supports recreation in a number of ways. The bank stabilization portions of the project will help reduce the erosion around the Smithville Lake that leads to increased levels of silt, impacting lake depth in certain locations. The more stable depths would benefit those members of the public that utilize Smithville Lake for pleasure boating and personal watercraft.

The habitat enhancement portions of the project would provide recreational benefit to the anglers by providing more habitat for fish in Smithville Lake. The increased habitat would allow the fish access to more diverse habitats increasing Smithville Lake's fishery. A stronger fishery could draw and support more anglers to the lake. The increased habitat diversity along the lakeshores and stronger fishery would also help to support increased numbers of waterfowl in Smithville Lake. Larger numbers of waterfowl would increase the numbers of hunters that utilize Smithville lake.

Recreational camping around Smithville Lake would also increase because large numbers of the boaters, anglers, and hunters that utilize Smithville Lake are not local residents and would use the available campgrounds. The final benefit from the increased recreation around Smithville Lake would be to the local economy and small businesses. By increasing the number of lake users the amount of tourism dollars making its way into the surrounding communities would be significant.

Communication and Education Value: Communication and Education enhancement are key components of this project. The project can be considered a valuable asset to allow researchers and students to observe the long term benefits to habitat enhancement while still supporting recreation and local economies. Research students from Avila University have expressed an interest in studying and quantifying colonization of the habitat enhancement structures that would be added to the lake by this project. Instructors from Liberty High School and Liberty North High School are expected to bring students to the lake throughout the project to observe and measure the benefits gleaned from this project. They will have a chance to compare erosion rates in areas that have had the bank stabilized to those that remain unprotected. Students will have the opportunities to make qualitative observations about the number of organisms utilizing the enhancement structures. The Communication and Education benefits resulting from this project would illustrate to students that conservations efforts does not have to come at the detriment of the economy.

Innovativeness: The Smithville Lake Habitat Enhancement/Bank Stabilization Project is specifically targeting hardwoods for the brush piles as opposed to the usually soft woods and discarded Christmas trees. Hardwoods could be utilized by the aquatic organisms for approximately 10 years. The typical softwoods and discarded Christmas trees typically only last 1 to 2 years before they decompose and are no longer a suitable refugia site for aquatic animals. By combining the rip-rap bank stabilization with the rock piles Smithville Lake would be able to provide quality, long term habitat to aquatic organisms along with long term bank stabilization helping to prevent erosion around the lake. As well, by including educational institutions early in the project, Smithville Lake will be able to gain useful data that could be used in the future for other habitat enhancement projects. The increase in knowledge may illuminate areas in future projects that have a more substantial impact. This would maximize the cost/benefit ratio for these types of projects. Overall, the Smithville Lake Habitat Enhancement/Bank Stabilization Project will add health value to all, and will put the grant funding to innovative use by adding

diverse habitat to the lake insuring recreational and educational vitality for our community of lake users for generations to come.

The Corps will:

The Government shall provide materials and services for the design and construction of the Project. Services shall include the design of the aquatic habitat/shoreline protection structures, and designation of the structure locations. The government shall also provide materials for construction, to include, approximately 6000 tons of rip rap delivered to the construction site. The Government shall retain final approval authority over all design and construction activities.

The Partner(s) will:

The Missouri Department of Conservation (MDC) will provide equipment and supplies in the form of boats, excavators, chainsaws and fuel. In addition, MDC will also supply labor for the construction of the project and monitoring of project use in and around the rock and brush piles.

Clay County will provide equipment and supplies in the form of skid loaders, front loaders, fuel, and \$20,000 of rock. In addition, Clay County will also supply labor for the construction of rock piles.

Burton's Bait and Tackle will help to organize and provide approximately \$20,000 worth of volunteer services.

Challenge Partnership Financial Work Sheet

Corps Project Name: Smithville Lake/Smithville Lake Project

Work Project Title: Smithville Lake Habitat Enhancement Partnership (Reservoir Fisheries Habitat Partnership (Rfhp))

POC Name: Derek Dorsey

Address: PO Box 428

City: Smithville

State: MO Zip Code: 64089

Telephone: 8163893947

Location on Project:

Partner Organization 1: Missouri Dept. of Conservation

POC Name: Scott Ryan

Address: 701 James McCarthy Drive

City: St. Joseph

State: MO Zip Code: 64507

Telephone: 8162713100

Partner Organization 2: Clay County

POC Name: Jim Fisher

Address: 17201 Paradesian St.

City: Smithville

State: MO Zip Code: 64089

Telephone: 8164073401

Partner Organization 3: Burton's Bait & Tackle

POC Name: Gary Burton

Address: 119 N 169 Highway

City: Smithville

State: MO Zip Code: 64089

Telephone: 8165324659

Proposed start date of work: Jan-13

Simple description of work to be accomplished through the partnership: This project will be a continuation of a previous successful project enhancing aquatic habitat and stabilizing banks in and around Smithville Lake. The U.S. Army Corps of Engineers, Missouri Department of Conservation, and Clay County will work together to place hardwood brush piles and rock piles to diversify the aquatic habitat and utilize rip-rap to stabilize lakeshores to reduce erosion. The benefits of these actions will help to strengthen Smithville Lake's fishery, leading to healthier habitats for the lake's flora and fauna while enhancing the recreational value to the lake's visitors.

Double click on spreadsheet to access data entry fields:

| | Local Corps Office | Handshake Funds | Partner 1 | Partner 2 | Partner 3 | Total |
|----------------------------|-------------------------------|----------------------------|------------------|------------------|------------------|------------------|
| Salaries | \$9,807 | N/A | \$22,760 | \$8,180 | \$0 | \$40,747 |
| Travel | \$0 | N/A | \$0 | \$0 | \$0 | \$0 |
| Materials and Supplies | \$30,000 | \$30,000 | \$12,500 | \$30,000 | \$0 | \$102,500 |
| Equipment Use | \$2,000 | \$0 | \$5,000 | \$5,000 | \$0 | \$12,000 |
| Funds Contributed | N/A | N/A | \$0 | \$0 | \$0 | \$0 |
| Personal Property | N/A | N/A | \$0 | \$0 | \$0 | \$0 |
| Volunteer | N/A | N/A | \$0 | \$0 | \$20,850 | \$20,850 |
| In-Kind Services | N/A | N/A | \$0 | \$0 | \$0 | \$0 |
| Other (explain below) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Total | \$41,807 | \$30,000 | \$40,260 | \$43,180 | \$20,850 | \$176,097 |
| Share of Total Cost | 23.7% | 17.0% | 22.9% | 24.5% | 11.8% | 100% |

Explanations: