

**U.S. Army Corps of Engineers  
Fiscal Year 2017  
Handshake Program Application**

**Please review instructions before completing application!**

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Corps Lake/River Project Name: **Table Rock Lake**  
District / Division:**Little Rock District/Southwestern Division**  
Handshake Proposal Title: **Dewey Short Visitor Center Pollinator Gardens**  
Corps POC Name:**Trista Stevenson**  
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**A. Checklist:**

1. Will the Handshake funds be spent on Corps facilities and resources that are being fully maintained by the Corps?  **Yes**  **No**
  2. Will the Challenge Partnership agreement be 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 lake project OMP?  **Yes**  **No**
  4. Have all of the NEPA requirements been considered for this project?  **Yes**  **No**
  5. Did you participate in a Handshake Webinar in 2016 or review a 2016 Handshake Webinar on the Gateway?  **Yes**  **No**
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**B. Handshake Funding Request (maximum \$20,000): \$3772**

**C. Pollinator Habitat Bonus:** Challenge Partnerships that are focused on improving pollinator habitat will be eligible to compete for an additional \$5000. The application must clearly demonstrate the intent of creating pollinator habitat as the primary project scope.

This application qualifies for the Pollinator Habitat Bonus funding.

**D. Incentive Points Category:** Check the appropriate box if your application qualifies to receive bonus points on the evaluation score. The first category is for projects that are working to address invasive species management. The application must clearly identify how invasives are being addressed and managed. The second category is for Lake or River Projects that have never been chosen as Handshake recipients.

Invasive Species Management (100 points).

This Lake/River Project has never received Handshake funding (200 points).

**E. Describe your partnership and the proposed Handshake Partnership Project:**

Project applications will be evaluated on the categories below. Please complete each section as appropriate.

**Summary Statement:**

The Dewey Short Visitor Center at Table Rock Lake, Branson Missouri was designed and built in 2012 to include about 5 acres of xeriscape gardens. Due to contractual issues, the beds and planting areas, not adjacent to the building were never successfully established and are now in disrepair and in urgent need of restoration. The total project is approximately 1 acre in size and will be accomplished in phases over several years. The landscape will be rejuvenated to create a pollinator garden that will provide direct benefit to pollinators and wildlife as well as provide explorative and investigative learning opportunities to meet the needs of visitors to the site. For continued maintenance, upkeep and support, this project will be included in the revised OMP that is due in FY 17.

**Longevity / O&M description:**

Once established, the pollinator garden will require minimal maintenance and can be expected to last decades, barring extreme weather events.

The first 1/3 acre phase will include restoring the existing flowerbeds and adding 3 large pollinator beds in an area currently infested with Bermuda grass. This phase is expected to last into the 3rd growing season. Starting in fall 2016, a rented sod-cutter will be used to remove the Bermuda grass while round-up, an herbicide, will be applied to other invasive species such as crab grass, Johnson grass, Korean clover, sericea lespedeza, and crown vetch. Clean top soil will be locally sourced and added where the non-native grasses and other species were removed. Initially native plants from pots, that include annuals and perennials, will provide an attractive cover and structure while native pollinator plants and grasses started from seed become established. Installation of these plants will complement the original design plan for the visitor center.

The area will require supplemental watering until the plants become established in the second growing season. The Dewey Short Visitor Center has existing volunteer positions that assist with landscaping. These volunteers will monitor and maintain soaker hoses with automatic timers. Mulch applied to a depth of 2-3" will also reduce the water evaporation from the garden and thus the need for supplemental watering. This will also discourage weed invasion or establishment. The water needs of the pollinator garden will decrease significantly once the plants are established. With diverse native plants in the garden, there also exists potential for seed harvest and redistribution allowing conservation of genetic variability for local native plants varieties.

**Partnership Value:**

The Missouri Master Naturalist program is a community-based natural resource education and volunteer service program for adults, sponsored by the Missouri Department of Conservation and the University of Missouri Extension. Their mission is to engage Missourians in the stewardship of the state's natural resources through science-based education and volunteer community service. The Missouri Master Naturalist volunteers support conservation efforts and natural resource education in their local communities.

The Corps enlisted the support of Missouri Master Naturalists, the Springfield Plateau Chapter, recognizing the group member's expertise, local and historical knowledge of the area would be valuable. To date, subject matter experts from the organization have provided technical assistance and in-kind services including: identification of native plant species appropriate to the site and project goals, recommendations regarding placement of the plants in the landscaped area, establishment of a practical timeframe to accomplish or implement the project, as well as the different phases the project will go through as the native plant pollinator garden becomes established. As a group, they will invest their time as volunteer service hours at the onset of the project as well as providing maintenance needs.

Handshake funds will be used to rent the sod-cutter and purchase herbicide, topsoil, mulch, plants and seeds, compost, edging, river rock, signage, and benches.

Nurturing this partnership over time will build trust and improve communication and involvement with this and other potential partners within the community and surrounding areas. Already through their contacts, the Master Naturalists have been able to bring other potential partners into the project including the land trust, a local school greenhouse, and citizens willing to donate seed or start plants.

### **Recreational Benefit:**

This planting project will enhance the visitor experience at Dewey Short Visitor Center by providing an educational example of native pollinator plants along an existing pathway. Currently the pathway extends approximately 500 feet between the building entrance and parking lot. It includes a bridge over the bioswale system and a few small native planting beds, but the majority of the path runs through mowed non-native grasses. The restored pollinator garden will extend the visitor experience by encouraging use of the longer pathway, a nature trail, between the center and the parking lot rather than bypassing the trail and dropping off guests at the front entrance.

The new garden/pollinator area will provide opportunities for education, nature exploration and wildlife observation for students, community groups as well as satisfying the curiosity of kids and adults. It will encourage visitors to learn about native plants and provide watchable wildlife opportunities for visitors to appreciate birds, butterflies, bees, other insects, and wildlife.

In addition to direct benefits, the garden will provide an aesthetically pleasing view from the state highway. This aesthetic draw may encourage visitors to stop and explore the gardens, visitor center, and part-take in additional recreational opportunities at Table Rock Lake.

### **Environmental Stewardship Value:**

U.S. Army Corps of Engineers works to restore degraded ecosystem structure, function and dynamic processes to a more natural condition through large-scale ecosystem restoration projects. Though this particular project is miniscule compared to projects in the Everglades, the Louisiana Coastal Area, Missouri River, and the Great Lakes. The establishment of a native plant pollinator garden at the Dewey Short Visitor Center aligns with two of the Corps Environmental Operative Principles by fostering sustainability and supporting environmentally sustainable solutions.

This sustainable restoration project will provide substantial environmental benefits when complete. Using native wildflower, grasses, forbs, and shrubs to create a habitat beneficial to pollinators and wildlife, the garden will also help control the spread of invasive and non-native grass species and eliminate mowing activities in the project area. Establishing native plants in this area is a preferred substitute for exotic ornamental plants. Native plants create self-sustaining communities that do not require the use of pesticides, herbicides, or fertilizers, thus reducing chemical and nutrient inputs into the lake waters.

Once established, the area will provide opportunities for environmental education and interpretive programs including wildlife watching and plant identification for local school and community groups, Master Naturalists, and visitors to the Dewey Short Visitor Center. Promoting the importance of pollinators and the use of native plants to attract and maintain their existence in the ecosystem is a benefit of this garden project. The trail and pollinator garden will include informational signs with plant species and the value of that species in the ecosystem.

### **Communication & Education Value:**

Dewey Short Visitor Center was visited by more than 150,000 people in 2016 and included visitors from around the world. However, most are from mid-western states where gardening techniques, plantings, and species are similar to southern Missouri. During the establishment of the pollinator garden, interpretive signage explaining the timeline of the project and its ecological importance will be highlighted along the trail. Once the plants are established, the signage will be updated to include plant species identification and life cycle information for pollinators likely to be viewed in the garden. Benches for viewing will also be installed. Throughout the implementation of the project, existing public interpretive offerings will be expanded to incorporate the pollinator area.

Natural Resource Specialists/Park Rangers and volunteers assigned to the visitor center host at least 20 field trips each year for approximately 1,000 students. Providing an additional pollinator and native plant specific opportunities may increase the number of scheduled field trips and contacts.

In addition to interpretive efforts at the site, this project will be part of a larger local and state initiative to provide habitat for pollinators. At the time of submission, this initiative includes the City of Branson and Missouri Department of Conservation. The local and statewide efforts will benefit citizens of Missouri, (with potential

exposure to millions of Branson tourists) through education, experiential learning and consistency of messages on the importance of pollinators and native plants.

**Innovativeness:**

The Dewey Short Visitor Center is Leadership in Energy and Environmental Design (LEED) Certified facility with a Gold rating. This landscape restoration project establishing a pollinator garden aligns perfectly with the facility design standards and LEED values.

Although the initial landscape design plan was appropriate, the current condition of the landscaped areas near the visitor center may be attributed to a lack of success with initial planting and resources devoted to upkeep and maintenance. The solution to this problem is to partner with local groups with expertise and interest who are willing to dedicate adequate time and effort to restore and maintain the rehabilitated pollinator garden. The native plant species provide nectar and host plants for reproduction for pollinators and other wildlife species, requiring less maintenance than ornamental non-native, but retaining an aesthetically pleasing appearance.

While pollinator gardens are increasing in popularity with nationwide monarch initiatives, a partnership between a federal agency and local group offers an innovative solution and accomplishes goals for both partners. The entire landscape area for the facility is approximately five acres. However, establishment of pollinator gardens in sequential one-acre sections will allow staff to gain experience with the pollinator garden in a manageable area with a greater chance for successful establishment of a sustainable habitat. If all five acres were reestablished at once, the size, scope, and maintenance required of this project could be daunting if not appropriately planned.

**Conclusion:**

Dewey Short Visitor Center is a LEED Gold Certified structure. Its landscaped surroundings are in need of a face lift in the form of restored flowerbeds and phase one of a large pollinator garden. Barring weather extremes, this project has an expected lifespan of decades and will expand learning opportunities and greater understanding of the environment. Perhaps the most important benefit of this project is nurturing a healthy partnership between the Corps and the Missouri Master Naturalists.

Double click on spreadsheet to access data entry fields and to enter Partner names. You MUST enter partner names into the spreadsheet:

	Local Corps Office	Handshake Funds	Missouri Master Naturalists	Partner 2	Partner 3	Partner 4
Salaries	\$7,705	N/A	\$0	\$0	\$0	\$0
Travel	\$0	N/A	\$0	\$0	\$0	\$0
Materials and Supplies	\$0	\$3,618	\$835	\$0	\$0	\$0
Equipment Use	\$80	\$154	\$0	\$0	\$0	\$0
Funds Contributed	N/A	N/A	\$0	\$0	\$0	\$0
Personal Property	N/A	N/A	\$0	\$0	\$0	\$0
Volunteer	\$2,120	N/A	\$3,887	\$0	\$0	\$0
In-Kind Services	N/A	N/A	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$9,905</b>	<b>\$3,772</b>	<b>\$4,722</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Share of Total Cost</b>	53.8%	20.5%	25.7%	0.0%	0.0%	0.0%
	74.3%					

	Partner 5	Partner 6	Partner 7	Partner 8	Partner 9	Partner 10
Salaries	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$0
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$0	\$0	\$0	\$0	\$0	\$0
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Share of Total Cost</b>	0.0%	0.0%	0.0%	0.0%	0.0%	0

	Partner 11	Partner 12	Partner 13	Partner 14	Partner 15	Total
Salaries	\$0	\$0	\$0	\$0	\$0	\$7,705
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$4,453
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$234
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$0	\$0	\$0	\$0	\$0	\$6,007
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$18,399</b>
<b>Share of Total Cost</b>	0.0%	0.0%	0.0%	0.0%	0.0%	100%

## Explanations:

Local Corps Office portion includes overhead salaries for one GS-9 Natural Resource Specialist to coordinate partnership efforts and oversee the project, a seasonal GS-5 Park Ranger to provide hands-on work in the beds, one WG-5 maintenance employee to provide equipment operation and one volunteer to water the beds as needed. Equipment use includes use of skid steer and GSA vehicle.

Handshake funds will cover sod machine rental as well as supplies and materials to include plants, seeds, benches, signage, edging, compost, mulch, shrubs, river rock, and herbicide.

Master Naturalist contributions are primarily volunteer services for planning, planting, maintenance, seed collection, and travel time. These services are valued at the FY 16 rate of 23.56. However, one of the members spearheading the project has a professional background in horticulture and botanical illustration. The value of her services are likely higher than the standard volunteer rate. The Master Naturalists will also donate seed collected and processed by members as well as live milkweed plants.

