

**U.S. Army Corps of Engineers
Fiscal Year 2014
Handshake Program Application**

Please review instructions before completing application!

Corps Lake/Project Name:**Carr Creek Lake**
Handshake Proposal Title:**American Chestnut Orchard**
Corps POC Name:**Kevin Wright**
Telephone: **(606) 642 - 3308** ext.
E-Mail: **kevin.c.wright@usace.army.gov**

A. Eligibility 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

**If "No" to any of the above questions the proposal cannot be authorized under the Corps' challenge partnership authority.*

B. Handshake Funding Program Request (maximum \$30,000): \$9000

C. Cooperative Agreement 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 application qualifies to receive bonus points on the evaluation score for partnering with three or more partners. A summary of the partners' contribution to the Handshake Project should be included in the financial worksheet below.

- Application includes 3 partners (25 bonus points)
- Application includes 4 partners (40 bonus points)
- Application includes 5 partners (50 bonus points)
- Application includes _____ partners (50 bonus points for the first 5 partners plus 10 points for each additional partner)

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:

The American chestnut (*Castanea dentata*) was an essential component of the entire eastern United States ecosystem, from Maine to Mississippi. Most of Kentucky falls within the historic range. Being a late-flowering, reliable, and productive tree, it was the single most important food source for a wide variety of wildlife. Bears, birds, rodents, deer and many other species utilized the high energy nuts each year. In the early 20th Century, a fungus known as chestnut blight was introduced into the U.S. from Asia. This fungus quickly spread throughout the American chestnut range and decimated the species by the late 1940's to early 1950's. The loss of these trees, which had made up 25 to 35% of all trees within the eastern forests, was devastating to wildlife and humans, since chestnut trees were known as "the most useful tree in the woods." The chestnut blight kills the above ground stem, but does not kill the root systems of the trees. Chestnut is a prolific sprouter, so often times stump sprouts develop after the trees have died. Occasionally, these stump sprouts will grow blight free for a long enough time to produce nuts. The American Chestnut Foundation (TACF) utilizes these nuts in their back-cross breeding program in order to develop blight resistant 15/16th American trees.

Carr Creek Lake staff proposes partnering with the Kentucky Chapter of The American Chestnut Foundation (KY-TACF) to implement a chestnut breeding orchard on project lands. KY-TACF will work with USACE employees and other partners to develop a two-line breeding orchard. This orchard will be screened for blight resistance in order to advance each line for further development of blight resistant trees that can eventually be placed back into forest settings within Kentucky. KY-TACF will provide planting materials (nuts/seedlings), expert consultation and advice for orchard management, and hands-on volunteer services (planting, research, testing, etc). Other partners will provide maintenance services, such as mowing, will provide volunteer services for planting and orchard maintenance and will donate orchard signage/interpretive materials.

KY-TACF has previously partnered with Carr Creek Lake with the donation of 8 advanced American chestnut trees for an interpretive display planting near the project office. Additionally, twelve pure American chestnut seeds were provided for "testing" the proposed orchard site. Partnering to establish a breeding orchard expands on relationships already established for educating the public on the American chestnut and furthering efforts to get this species back into the forests.

Sustainability:

American chestnut was among the fastest growing hardwoods of the eastern U.S. Fast-growing species like the chestnut will be of great use to help mitigate accelerated global warming through the uptake and storage of carbon. This project will have long-term implications for the development and eventual release of blight resistant American chestnut trees that are adapted from Kentucky genetics. The orchard will have signage and will be accessible to the public where they will be able to learn about this tree, about the blight that decimated it and about efforts to restore it to its native range.

Partnership Value:

Implementing this shared project will strengthen the relationship between USACE and the participating partners. It will lead to other projects between USACE and KY-TACF and the other partners, such as FY14 chestnut display plantings planned for other Corps lakes within Kentucky (planned for Barren River Lake, Lake Cumberland, Dewey Lake and Grayson Lake at time of this writing).

Recreation Benefit:

Once implemented, the orchard will serve as a “living classroom” of sorts where school groups and other organizations can be provided ranger talks about the American chestnut and efforts to restore the species. Upon maturity (nut production) and once harvests have occurred for furthering the breeding program, the remaining blight resistant trees will continue to produce nuts each year. This creates a new recreational opportunity at Carr Creek Lake where families will be able to come “chestnutting” at the project to collect nuts for their own use (think, “chestnuts roasting on an open fire”). Additionally, surplus and “stolen” nuts will be utilized by wildlife, which could enhance hunting opportunities as animal populations benefit from the additional food source.

Environment Stewardship Benefit:

Before being decimated by the blight, American chestnut was one of the most important forest trees throughout its range. The rapidly growing tree provided an excellent source of wood fiber which was highly rot resistant. This species was also very important for wildlife, providing consistent fall mast for many species of animals. Developing blight resistant trees that can be reintroduced to our forests will provide endless Environmental Stewardship benefits.

Communications and Education Value:

Implementation of a chestnut breeding orchard will provide for local and regional coverage from newspapers and other media. The “chestnut story” is very touching to most everyone who has ever lived in the eastern U.S. Having this “living classroom” will provide endless opportunities to educate the public, school groups and regional professionals on restoration efforts, invasive species such as chestnut blight, ecosystem management, carbon sequestration, tree growth, renewable products and many other topics. Interpretive signage will be provided and installed by partner Knott County PRIDE.

Innovativeness:

American chestnut breeding orchards have been occurring for a long time. However, each state chapter within TACF must develop and manage their own programs in order to develop locally and regionally adapted genetic lines of trees. Within Kentucky, Carr Creek Lake hosting a breeding orchard is very innovative by bringing multiple partners together, getting local groups involved and actively implementing the existing National MOU between USACE and TACF. Hosting a long-term activity such as this is unique when considering our year-to-year budgeting process. However, once established, maintenance costs will be minimal while the benefits grow.

The Corps will:

- Provide an area suitable for planting based on soil type, drainage and location.
- Offer security for the orchard through remote location and ranger patrol.
- Offer educational opportunities to the public concerning the project.
- Assist in planning, planting and monitoring of the orchard.
- Improve existing access road and install a gate.

The Partner(s) will:

- Provide potentially blight resistant seeds/seedlings for planting.
- Provide expert analysis and advice on project, including planning of the project.
- Provide interpretive signage for the project.
- Provide expert advice for the care and maintenance of the orchard.
- Provide regular maintenance such as mowing between the tree rows and herbicide application.
- Provide consultation for diseases and treatment.

Challenge Partnership Financial Work Sheet

Corps Project Name: Carr Creek Lake

Work Project Title: American Chestnut Orchard

POC Name: Kevin Wright

Address: 843 Sassafras Creek Rd

City: Sassafras

State: KY Zip Code: 41759

Telephone: 606 - 642 - 3308 x

Location on Project:

Partner Organization 1: Kentucky Chapter of The American Chestnut Foundation (KY-TACF)

POC Name: Lynn Garrison, President

Address: 1620 Mulberry Pike

City: Eminence

State: KY Zip Code: 40019

Telephone: 502 - 845 - 2371 x

Partner Organization 2: Kentucky Division of Forestry

POC Name: James Madden

Address: 232 Birch St.

City: Hazard

State: KY Zip Code: 41701

Telephone: 606 - 216 - 7413 x

Partner Organization 3: Knott County PRIDE

POC Name: Sharon Hall

Address: PO Box 1500

City: Hindman

State: KY Zip Code: 41822

Telephone: 606 - 438 - 7786 x

Partner Organization 4: Kentucky Department of Fish & Wildlife Resources

POC Name: Scott Freidhof

Address: 255 Rodburn Hollow Road

City: Morehead

State: KY Zip Code: 40351

Telephone: 859 - 745 - 3100 x

Partner Organization 5:

POC Name:

Address:

City:

State:

Zip Code:

Telephone: - - x

Partner Organization 6:

POC Name:

Address:

City:

State:

Zip Code:

Telephone: - - x

Partner Organization 7:

POC Name:

Address:

City:

State:

Zip Code:

Telephone: - - x

Partner Organization 8:

POC Name:

Address:

City:

State:

Zip Code:

Telephone: - - x

Partner Organization 9:

POC Name:

Address:

City:

State:

Zip Code:

Telephone: - - x

Proposed start date of work: FEB-14

Simple description of work to be accomplished through the partnership: Establish a 2-line American chestnut breeding orchard.

Double click on spreadsheet to access data entry fields:

	Local Corps Office	Handshake Funds	Partner 1	Partner 2	Partner 3	Partner 4
Salaries	\$5,500	N/A	\$0	\$2,000	\$0	\$3,000
Travel	\$0	N/A	\$0	\$0	\$0	\$0
Materials and Supplies	\$500	\$7,000	\$2,500	\$0	\$50	\$0
Equipment Use	\$500	\$2,000	\$0	\$500	\$0	\$3,000
Funds Contributed	N/A	N/A	\$0	\$0	\$0	\$0
Personal Property	N/A	N/A	\$0	\$0	\$150	\$0
Volunteer	N/A	N/A	\$2,000	\$0	\$885	\$0
In-Kind Services	N/A	N/A	\$3,000	\$3,500	\$200	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$6,500	\$9,000	\$7,500	\$6,000	\$1,285	\$6,000
Share of Total Cost	17.9%	24.8%	20.7%	16.5%	3.5%	16.5%

	Partner 5	Partner 6	Partner 7	Partner 8	Partner 9	Total
Salaries	\$0	\$0	\$0	\$0	\$0	\$10,500
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$10,050
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$6,000
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$150
Volunteer	\$0	\$0	\$0	\$0	\$0	\$2,885
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$6,700
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$36,285
Share of Total Cost	0.0%	0.0%	0.0%	0.0%	0.0%	100%

Carr Creek Lake – Handshake Application – Attachement 1



Test planting of pure American chestnut seeds at orchard site. Spring, 2013.

Carr Creek Lake – Handshake Application – Attachement 2



Carr Creek Lake chestnut display planting. Completed Spring, 2013, near project office.