

**U.S. Army Corps of Engineers
Fiscal Year 2021
Handshake Program Application**

Please review instructions before completing application!

Corps Lake/River Project Name: **Clarence Cannon Dam and Mark Twain Lake**

District / Division: **St. Louis District/Mississippi Valley Division**

Handshake Proposal Title: **Mark Twain Lake Environmental Adventure Trail**

Corps POC Name: **Allen Mehrer**

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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? (not in outgranted parks) 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. I am aware the Challenge Partnership Agreement must be reviewed and Approved by District Office of Counsel before sending to HQUSACE. Yes No
 6. If the full funding amount requested is not available, could a portion of this Handshake Project be completed with partial funding? Yes No
 7. I am aware that all government funds must be spent in accordance with FAR, DFAR and AFAR contracting laws and regulations, and that Handshake funds cannot be provided to the partner(s). Yes No
 8. Did you participate in a Handshake Webinar in 2019 or review a 2019 Handshake Webinar on the Gateway? Yes No
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B. Handshake Funding Request (maximum \$25,000): \$19,000.00

C. Incentive Points Category: Check the appropriate box if your application qualifies to receive bonus points on the evaluation score.

- This project will be completed with a national MOU partner with which the Lake or Project hasn't previously partnered. (100 points).
- This project reduces O&M cost to the Corps over the lifecycle of the proposed project or improves existing infrastructure. (100 points).

D. Describe your partnership and the proposed Handshake Partnership Project:

Summary Statement:

This application supports the development of 1.5 miles of the Mark Twain Lake Environmental Adventure Trail. Bike riding is a popular activity enjoyed by the visitors of our lake, but is generally relegated to the recreation area access roads where the interface with motor vehicles is common. The concept plan for this trail is to develop an independent corridor for bicyclists and pedestrians that will cover a total of five miles through the Northeast Missouri Environmental Stewardship Demonstration Area, and provide recreational opportunities that immerse users in environmental biomes native to the area. This experience will be complimented by educational opportunities showcasing active natural resource stewardship activities, including forest, glade and grassland management. Funding will be integrated with financial and service contributions of \$20,000.00 provided by the Mark Twain Lake Friends of Recreation and Environmental Stewardship (MTL FOREST) Council, and its partnering entities, to develop the 1.5 mile segment of compacted pug limestone trail. The 10' trail tread will be developed on a consistent grade that incorporates ADA standards, and provides trail users an enjoyable and meaningful experience unique to this region. The Mark Twain Lake Environmental Adventure Trail advances collaborative initiatives, fulfills customer demands, promotes quality outdoor experiences, and supports national health and fitness initiatives.

Handshake Funding Cost Break Down:

Funds derived from the 2021 Handshake Partnership Program shall be allocated for the following purposes:

1. Handshake Funds: Acquisition of trail surface materials - \$19,000
2. Clarence Cannon Dam and Mark Twain Lake: Equipment use and Corps employee labor- \$10,000
3. MTL FOREST Council: Financial resources and in-kind services including site design and installation of trail amenities- \$7,500
4. Missouri Department of Conservation: In-kind services including assistance with demonstration areas - \$4,000
5. Missouri Master Naturalists: In-kind services including assistance with demonstration areas - \$5,000
6. NEMO Electric Power Co-op: In-kind services including corridor clearing - \$3,500

Longevity / O&M description:

The anticipated operative life span for the Mark Twain Lake Environmental Adventure Trail is 50 years due to the basic and durable nature of the components, and the minimal infrastructure required to operate. Periodic maintenance will be accomplished with the MTL FOREST Council, through volunteer contributions, and with minimal Project O&M. Value of contributed maintenance requirement over the lifespan of the project is \$150,000.00.

Partnership Value:

The estimated project cost is \$49,000.00. The Mark Twain Lake FOREST Council has recognized the community value and merit of the Mark Twain Lake Environmental Adventure Trail, and has committed to providing resources and in-kind service valued at \$7,500 to develop the proposed facility. Missouri Department of Conservation (\$4,000), Missouri Master Naturalists (\$5,000), and NEMO Electric Power Co-op (\$3,000) are part of MTL FOREST Council, but have independent contributions toward the project. The total partner contributions for the trail is \$20,000, 41% of the total cost of the project. Contributed resources will include: \$5,000.00 in financial resources; In-kind services valued at \$15,000.00, including: corridor clearing, site design, natural resource management demonstrative areas, installation of interpretive features, and installation of trail amenities. In addition, anticipated maintenance requirements provided by the MTL FOREST Council is valued at \$3,000.00 annually, contributing a maintenance value projected over the lifespan of the project of \$150,000.00. Total project value for the facility over the expected operational life is \$199,000.00.

Background: As a management component of the Frank Russell Recreation Area, the Northeast Missouri Environmental Stewardship Demonstration Area (NEMOESDA) is a regional cooperative project that provides a consolidated venue for multiple responsible stewardship and recreational disciplines.

It is one of the few partnership projects in the St. Louis District, and the nation, that combines the resources of federal and state agencies, community groups, national wildlife benefit organizations, and private industries to achieve a common goal of effective stewardship implementation on public lands. Through collaborative efforts, the area serves as an avenue for public and private entities to demonstrate innovative and effective stewardship technologies, share knowledge, provide educational experiences to a regional audience, and promote quality outdoor experiences. The feature component of this area is the 3.5 acre recreational pond. In addition supporting facilities, such as a pavilion, restroom, interpretive signs, and landscape features were developed in this area to demonstrate progressive and community-involved environmental and recreation stewardship.

In April 2010, this group of engaged partners solidified their commitment to responsible environmental and recreational stewardship on the public lands of Mark Twain Lake by forming the Mark Twain Lake Friends of Recreation and Environmental Stewardship Council. The goal of the group is to maintain an environment conducive to the collaboration of public and private entities that share the same values of responsible stewardship, and to seek opportunities to apply those values to the public lands of Mark Twain Lake. The Mark Twain Lake FOREST Council is a 501c3 non-profit organization, and maintains a Cooperative Association Agreement with Mark Twain Lake.

The MTL FOREST Council has had many past successes:

1. April 2018 – Recipient of the 2017 Excellence in Partnership Award
2. Developed the Mark Twain Lake Archery Park featuring a ten station archery range, and a 15 station 3D archery trail under the Handshake Partnership Program, 2016
3. Received National Wild Turkey Federation Grant for Mentored Turkey Hunt Special Event, and warm season grass management in Robert Allen Recreation Area, 2015
4. Developed Barrier-Free Fishing Access at the Frank Russell Recreation Pond under the Handshake Partnership Program, 2014
5. Developed the Outdoor Adventure Campground, an equine friendly camping facility located at the trail head of Joanna Trail under the Handshake Partnership Program, 2012
6. Collaborated with the Corps of Engineers to acquire funding for restroom facilities supporting the NEMOESDA Area and the Joanna Multi-Use Trail system under the Missouri Department of Natural Resources Recreation Trails Program, 2011
7. Received National Wild Turkey Federation Grant for development of interpretive signs, and for warm season grass management activities in NEMOESDA, 2011
8. Developed NEMOESDA Pavilion with Corps of Engineers under the Handshake Partnership Program, 2010

Recreational Benefit:

The Mark Twain Lake Environmental Adventure Trail will directly support the recreation mission of the Corps of Engineers by serving diverse user groups that seek quality outdoor experiences and trail riding opportunities. Surfaced trail systems are rare in this region, and enthusiasts are generally relegated to roads designed for vehicular use. Creating an unsafe user interface, especially within the bounds of developed Corps recreation areas and campgrounds. To find a trail system that is dedicated to this form of recreation, bicyclists and pedestrians have to travel a great distance outside the lake area. The hardened surfaced trail system and the consistent grade compliant with ADA standards that will be incorporated in the design of the trail will appeal to a broad demographic with varying physical capabilities. The development of this trail will provide a safe riding or hiking environment for visitors to Mark Twain Lake eliminating the current risk of vehicular interface. It will also connect to the Frank Russell Campground helping to meet another community need that is currently unfulfilled. The responsible recreation management demonstrated by this project, and the continued application of the NEMOESDA initiative, demonstrates the Corps of Engineers and the MTL FOREST Council's commitment to providing our community quality outdoor experiences.

Environmental Stewardship Value:

The tenets of the Environmental Stewardship mission at Mark Twain Lake are the provision of quality outdoor experiences, the application of responsible stewardship activities, and the promotion of sound conservation principles. The Mark Twain Lake Environmental Adventure Trail will pass through an area that will be designed to educate the public on the merits of forest, glade, and grassland management, and the benefits these ecosystem types have on their community. In partnership with the Missouri Department of Conservation and the Missouri Master Naturalist, demonstrative facilities will be developed to showcase responsible stewardship and natural diversity present in our upland forests and grasslands. Tree identification courses, timber stand improvement demonstration plots, and prairie forb/pollinator management areas will be some of the features developed to communicate the Corps of Engineers commitment to sound environmental principles. As riders pass through the area, interpretive signs will communicate the benefits these ecosystem types have for our community. The trail will be an asset to the community, immerse users in a natural environment, provide an appropriate platform to communicate the desired ethics of public land utilization, provide a venue to communicate the value of wise use of natural resource assets, and encourage a healthy lifestyle.

Communication & Education Value:

The Mark Twain Lake Environmental Adventure Trail will provide for the collaboration of multiple responsible stewardship and recreational disciplines, and will be a natural and complimentary educational asset. The trail will be a desired resource for regional education organizations, organized youth groups, community members, and park visitors seeking physical fitness activities in an outdoor environment. The educational, demonstrative and interpretive components planned for the area will engage regional organizations, such as FFA, 4H, and Scouts that require developed environmental venues to support their educational and service activities. The facility will appeal to a wide user demographic including youths and mature adults, helping to further encourage them to engage with nature. It will also provide the Corps of Engineers and partnering entities a natural and comfortable setting to communicate relevant educational experiences, and encourage health and physical fitness in the community.

Innovativeness:

The unique design and character of the Mark Twain Lake Environmental Adventure Trail will appeal to a broad demographic of people with various physical and mobility capabilities. The open corridor, consistent grade, and hardened trail surface will be inviting to people who enjoy bike riding, hiking, running, and more. This trail system will be embraced by our community which desires an engaging experience, and the accessibility and flexibility accommodated by the design. The trail corridor will give bicyclists and pedestrians a dedicated facility designed for their activities, and provide a safe environment for them. The trail system will also connect to the Frank Russell Campground, increasing opportunities for recreation. The design elements of the trail will engage users with the forest and grassland vegetative communities and convey the commitment the Corps' has to sustaining our natural environment.

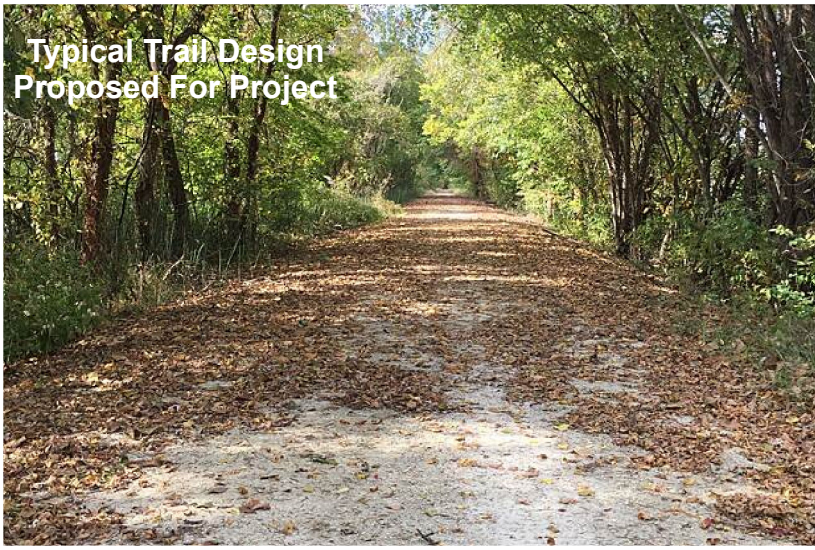
The project will represent an achievement of collaboration, and will be a valued community resource. The addition of a trail that consolidates the stewardship and recreation disciplines will yield a resource that is well-received by outdoor enthusiasts in our region. The concept of federal and state land management agencies, wildlife benefit organizations, civic organizations, educational organizations, and private industry collaborating under a common purpose is innovative and merits much excitement. This project will serve numerous recreational, educational and environmental purposes, encourage future initiatives, and the advancement of prospective collaborative endeavors.

Conclusion:

The Mark Twain Lake Environmental Adventure Trail sustains the Corps' stewardship and recreation mission by providing a safe and engaging trail for bicyclists and pedestrians, and promotes a collaborative environment with partners of the MTL FOREST Council. This trail will provide a unique value-added service, and strengthens our commitment to the community.

U.S. Army Corps of Engineers				
FY 21 Handshake Program				
Clarence Cannon Dam and Mark Twain Lake				
Mark Twain Lake Environmental Adventure Trail				
Total Project Value - \$55,000.00				
	Local Corps Office	Handshake Funds	MTL FOREST Council	*MO Dept of Conservation
Salaries	\$5,000.00	N/A	\$0.00	\$0.00
Travel	\$0.00	N/A	\$0.00	\$0.00
Material and Supplies	\$0.00	\$19,000.00	\$0.00	\$0.00
Equipment Use	\$5,000.00	\$0.00	\$0.00	\$0.00
Funds Contributed	N/A	N/A	\$5,000.00	\$0.00
Personal Property	N/A	N/A	\$0.00	\$0.00
Volunteer	N/A	N/A	\$0.00	\$0.00
In-kind Services	N/A	N/A	\$2,500.00	\$4,000.00
Other (explain below)	\$0.00	\$0.00	\$0.00	\$0.00
Total	\$10,000.00	\$19,000.00	\$7,500.00	\$4,000.00
Share of Total Cost	20%	39%	16%	8%
	*MO Master Naturalists	*NEMO Electric Power Coop	Partner 5	Partner 6
Salaries	\$0.00	\$0.00		
Travel	\$0.00	\$0.00		
Material and Supplies	\$0.00	\$0.00		
Equipment Use	\$0.00	\$0.00		
Funds Contributed	\$0.00	\$0.00		
Personal Property	\$0.00	\$0.00		
Volunteer	\$0.00	\$0.00		
In-kind Services	\$5,000.00	\$3,500.00		
Other (explain below)	\$0.00	\$0.00		
Total	\$5,000.00	\$3,500.00		
Share of Total Cost	10%	7%		
Note:				
1. Partnership contribution to the overall project is 41%				
2. MO Dept of Conservation, MO Master Naturalists, and NEMO Power are members of the MTL FOREST Council, but have independent contributions toward the project.				

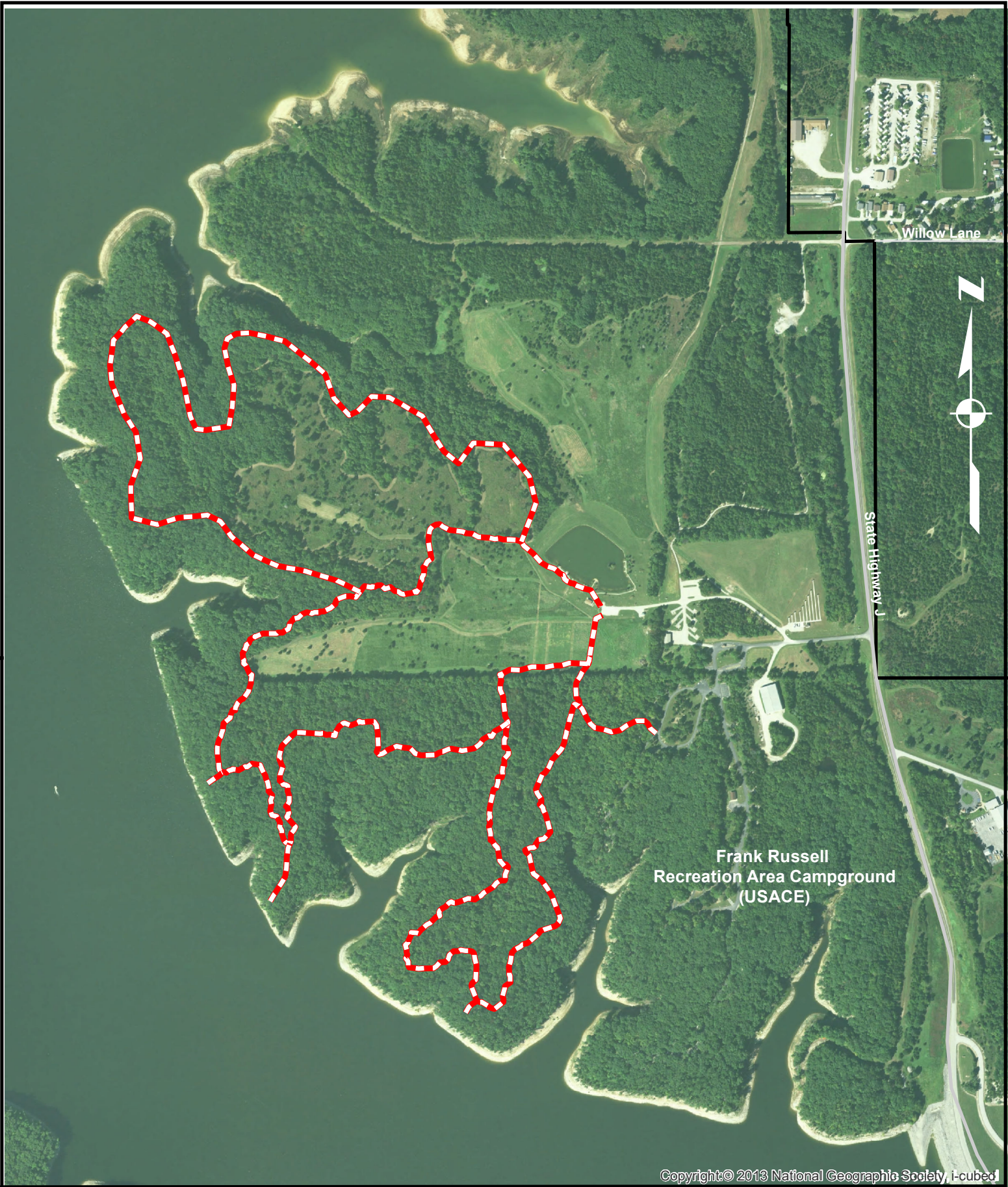
Typical Trail Design
Proposed For Project



US Army Corps
of Engineers ®

**Clarence Cannon Dam and Mark Twain Lake
Mark Twain Lake Environmental Adventure Trail
Handshake Partnership FY21
1.5 Mile Segment**

0 0.0450.09 0.18 0.27 0.36
Miles



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Clarence Cannon Dam and Mark Twain Lake Mark Twain Lake Environmental Adventure Trail 5 Mile Trail Concept Plan

