

**U.S. Army Corps of Engineers  
Fiscal Year 2022  
Handshake Program Application**

**Please review instructions before completing application!**

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Corps Lake/River Project Name: **Shenango River Lake**

District / Division: **Pittsburgh District / Great Lakes and Ohio River Division**

Handshake Proposal Title: **Shenango Hiking Trail**

Corps POC Name: **Bill Spring, Resource Manager**

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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 2021 or review a 2020 Handshake webinar on the Gateway?  Yes  No
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**B. Handshake Funding Request (maximum \$25,000): \$25,000.00**

**C. Corps Foundation Bonus: (maximum \$5,000): \$5,000.00**

Separate bonus funding provided by the Corps Foundation for a selected Handshake Project.

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

☒ This project will be support youth participation in natural resources and outdoor recreation. (100 points).

☒ This project will support diversity, equity and inclusion goals to increase access to a quality recreation experience which includes a safe and healthful environment for a diverse population. This project will help the Corps conserve natural resources and provide recreation opportunities that contribute to the quality of American life. (100 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 Corps is in its third year of partnership with the Shenango River Watchers (SRW). Since 2018 SRW has provided over 1,500 hours of volunteer labor and hundreds of hours of administrative work to improve and expand the existing 200-year-old trail. Several small bridges have been repaired along this beautiful natural trail that runs along the Shenango River in Mercer County, Pennsylvania. The Shenango River Hiking Trail Handshake Proposal seeks to improve access to the trail from the southernmost trail head at Big Bend, where the trail crosses an unnamed tributary via a suspension bridge (see photos, located in enclosure 3). A Boy Scouts project constructed the current suspension bridge in 1970s, which is failing due to years of bank erosion beneath the bridge. SRW has created a bypass trail taking trail users upstream to a narrower crossing. This proposal is requesting funds to install an innovative fiber reinforced with polymer (FRP) footbridge across this unnamed tributary of the Shenango River along the Shenango Hiking Trail. Trail use has increased tremendously over the last 3 years, with current trail use estimated at 700 annual unique users. The addition of this new footbridge will increase trail usage and create a safer, more welcoming hike. The Corps will assist in the design of the abutment to support the bridge. SRW will provide volunteers and staff to assemble the bridge parts onsite, build the abutment, complete installation, and provide ongoing maintenance.

**Handshake Funding Cost Break Down:**

The goal of this handshake funding project is to create safe and easy access to the Shenango Trail for trail users of all ages. The full amount of handshake funding will be used to purchase an FRP bridge. Our volunteers have already spent over 200 hours creating the bypass trail to allow trail users to bypass the existing unstable suspension bridge. Currently if trail users decide to use the bypass they are forced to cross the stream without any bridge structure. If our project is chosen for the Corps Foundation Bonus the \$5,000 will be used for educational trail signage.

Fiber-reinforced with polymer (FRP) Bridge (to include pre-fabrication supply purchase and supplies required for installation and construction of the bridge abutment)

- \$25,000

Educational Trail Signage (to include design, fabrication, and shipping)

- \$5,000

**Longevity / O&M description:**

Traditional bridges face longevity and maintenance challenges. A major advantage of a FRP bridge is that the structure's material eliminates a significant portion of the maintenance that comes with metal and wooden structures. The FRP bridge is expected to last more than 60 years. In comparison, a conventional wooden bridge with a life expectancy of 5-15 years or a lightweight metal bridges which can start deteriorating after a few years. Long term maintenance of the bridge will be completed by SRW. In the longer term, the partnership between SRW and USACE at Shenango Lake focuses on the rehabilitation of all 8 miles of this trail, including

smaller bridges, informational kiosks, and other improvements, as well as maintaining, improving, and increasing accessibility to the kayak launches on Corps land along the Upper Shenango River Water Trail.

### **Partnership Value:**

The land where the Shenango Trail is located is owned in fee by the Army Corps of Engineers. In 2018, SRW began partnering with the Corps to provide most of the trail maintenance through monthly trail workdays typically involving 8-15 volunteers. SRW also provides daily maintenance by a few highly dedicated volunteers. Through the dedication and continuous hard work of the SRW staff and volunteers over the years, the Shenango River was named the 2021 Pennsylvania River of the Year. We hope for the Shenango Hiking Trail to receive a similar honor. SRW volunteers spent nearly 600 hours maintaining and improving the trail in 2020. SRW has already reached 600 hours maintaining and improving the trail in 2021 and is on track to add significantly more hours by December 31, 2021 with several major projects. With this partnership, SRW's volunteers and staff will provide the in-kind labor hours to coordinate bridge delivery, provide bridge abutment construction, assemble bridge materials, and complete bridge construction. SRW will continue to be responsible for all maintenance on the bridge area as well as the rest of the 8-mile trail. The Handshake Funding will be used to purchase an FRP bridge in the amount of \$25,000.

### **Recreational Benefit:**

The FRP bridge will provide a bypass of a failing suspension bridge and will ensure trail accessibility to many groups of people. Currently there are no safe or reliable stream crossings to access the Shenango Trail from the Big Bend trailhead at the southern end of the 8-mile trail. The FRP bridge will create a safe crossing for hikers, birdwatchers, bikers, equestrians, and others utilizing the trail. The weight capacity for the bridge is large enough that the structure is strong enough to hold two full size horses with riders at once, yet it is still inexpensive and designed to be assembled by a volunteer team. In addition, people who were not comfortable crossing the suspension bridge will now have a solid deck bridge to use. This includes young children, seniors, those with disabilities, bicyclists, and dog-walkers. This will make the trail more attractive and an enjoyable experience for these user groups.

### **Environmental Stewardship Value:**

The FRP bridge placement within Shenango River Trail is a unique recreational, natural, and historical asset to our community. The placement of this bridge will increase trail accessibility for educational hikes, recreational activities, and trail area maintenance. Volunteers and USACE staff will be able to easily access remote areas to remove invasive plants damaging our native landscape and wildlife. The bridge will also reduce the erosion occurring due to foot traffic from users crossing the creek. The FRP bridge itself exhibits a lower carbon footprint than steel and aluminum. Due to the inert nature of the bridge materials, it will not leach any chemicals into the adjacent soil or stream.

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

The FRP bridge is expected to increase visitation of Corps land. Increased visitation improves visibility on Corps amenities, which creates opportunities for educational, recreational, and community outreach efforts and events for the Corps and their partners. Signage, placed at the bridge, will highlight the partnership between these the Corps and SRW. The Corps intends on inviting the media to the ribbon cutting ceremony and deliver press releases to all local media outlets. Once the new bridge is installed, SRW will be able to provide additional educational programs on the trail that will include children's programs, nature hikes, and historical hikes to highlight the trail's former use as an Erie Canal extension, as well as programs to transport students from disadvantaged communities to hike the trail.

**Innovativeness:**

SRW is the only non-profit environmental organization in our watershed supporting USACE operations. They are comprised of a dedicated group of volunteers that have been serving the Shenango River Watershed for twenty years and the Shenango Trail for three years. No other organization in our area is doing similar work. The proposal will allow for the partnership to install a safe stream crossing bridge, which provides accessibility to all users and ultimately brings awareness to and promotes the trail. The Corps and SRW hopes to extend the partnership to local organizations or businesses in the community to communicate recreational and health benefits available on the trail. This trail parallels the Shenango River for 8 miles and was originally part of the Erie Extension canal in the 1800s; parts of the old canal structures are still visible on some parts of the trail. Our partnership with SRW also ensures several kayak launches are maintained along the river as part of the Upper Shenango River Water Trail, also maintained by SRW. The project is unique as it proposes to use a FRP bridge for the trail improvement to provide a sustainable and long-term solution to the trail.

**Corps Foundation Bonus:**

SRW would use the additional funds to provide educational signage that promotes the responsible use and management of the natural resources available; trail safety and etiquette, historical information of the area including the significance of the Erie Canal; the unique ecosystems along the trail; and the environmental impact users can contribute to protect the area for future generations.

**Conclusion:**

SRW's involvement in this trail is relatively new but has already invested thousands of hours of volunteer and administrative work to improve the trail. Maintaining this trail is something that no organization can do individually. The partnership continues restoring and improving this beautiful multipurpose trail. We hope that this Handshake funding will be the first big step in making the Shenango Trail a destination for trail users of all types.

Double click on spreadsheet to access data entry fields and to enter Partner names.

**You MUST enter partner names into the spreadsheet:**

	<b>USACE Shenango Lake</b>	<b>Handshake Funds</b>	<b>Shenango River Watchers</b>	<b>Partner 2</b>	<b>Partner 3</b>	<b>Partner 4</b>
Salaries	\$30,000	N/A	\$3,600	\$0	\$0	\$0
Travel	\$0	N/A	\$110	\$0	\$0	\$0
Materials and Supplies	\$10,000	\$25,000	\$3,000	\$0	\$0	\$0
Equipment Use	\$5,000	\$0	\$160	\$0	\$0	\$0
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	\$24,616	\$0	\$0	\$0
In-Kind Services	N/A	N/A	\$20,000	\$0	\$0	\$0
Other (explain below)	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$45,000</b>	<b>\$25,000</b>	<b>\$51,486</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Share of Total Cost</b>	37.0%	20.6%	42.4%	0.0%	0.0%	0.0%
	57.6%					

	<b>Partner 5</b>	<b>Partner 6</b>	<b>Partner 7</b>	<b>Partner 8</b>	<b>Partner 9</b>	<b>Partner 10</b>
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

	<b>Partner 11</b>	<b>Partner 12</b>	<b>Partner 13</b>	<b>Partner 14</b>	<b>Partner 15</b>	<b>Total</b>
Salaries	\$0	\$0	\$0	\$0	\$0	\$33,600
Travel	\$0	\$0	\$0	\$0	\$0	\$110
Materials and Supplies	\$0	\$0	\$0	\$0	\$0	\$38,000
Equipment Use	\$0	\$0	\$0	\$0	\$0	\$5,160
Funds Contributed	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	\$0	\$0	\$0	\$0	\$0	\$24,616
In-Kind Services	\$0	\$0	\$0	\$0	\$0	\$20,000
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>\$121,486</b>
<b>Share of Total Cost</b>	0.0%	0.0%	0.0%	0.0%	0.0%	100%



*Figure 1: The banks of the stream are eroding away the base of the existing suspension bridge.*



*Figure 2: Close-up of the eroded bank under the suspension bridge footing.*



*Figure 3: Proposed site of the FRP footbridge.*



*Figure 4: FRP Bridge example*