

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

Please review instructions before completing application!

Corps Lake/Project Name: **Tionesta Lake**

Handshake Proposal Title: **Kellettville Multipurpose Pavillion**

Corps POC Name: **Jason Quinn**

Telephone: **(814) 755 - 3512** ext.

E-Mail: **jason.quinn@usace.army.mil**

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) **Nov 12**

**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): \$19,000

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:

The USACE rangers from Tionesta Lake along with the project manager have been searching over the last few years for a great project to put forth a handshake application and I think we have found it!

The Kelletville Campground is located in the southern portion of Allegheny National Forest and is a true gem when it comes to quiet camping and recreational opportunities. It is also a great place to meet up with friends and family and enjoy local fishing, hiking, canoeing, hunting, and other recreational adventures. The campground could provide additional opportunities. Specifically the The Corps of Engineers, along with its partners, would like to 1) enhance the Kelletville recreation area with the addition of a 24' x 36' multipurpose pavilion to expand opportunities for campers and other visitors, and 2) provide an area that will be utilized by our partners (Trout Unlimited, US Forest Service, Forest County School District) for the safe delivery of environmental education and conservation programs to local schools and visitor groups.

The Kelletville Campground is centrally located between East and West Forest Schools. The campground currently has the needed infrastructure to support the delivery of environmental education program with ample parking for vans or buses, restrooms, secure grounds, and three local streams that confluence on USACE property (Tionesta Creek, Salmon Creek, and The Branch). However, there is NO area at the Kelletville Campground where visitors can escape adverse or severe weather conditions.

Our vision is to make the proposed pavilion a central feature of the campground and have it function as a student/community environmental education center. The Forest County School District (West Forest and East Forest Elementary and Secondary Schools) received a 2012 STEM Grant (Science, Technology, Engineering, and Math) to develop and deliver locally based environmental education programs built around real time satellite stations and data loggers that are currently monitoring water quality at the Kelletville Campground. Forest School District administrators and teachers are working with IFTU (Iron Furnace Chapter of Trout Unlimited) to expand the use of existing data in classrooms and to bring students to the Kelletville Campground for hands-on environmental education classes built around activities in watershed science/stream ecology that meet or exceed PA science curriculum standards. STEM funding will allow students to learn how water quality relates to land use, watershed processes, and freshwater biological communities. The monitoring station located on Salmon Creek at the Kelletville Campground that is operated by the IFTU sends water quality data to the internet every 4 hours that is available to the schools and public and can be viewed on the IFTU web page at: www.ironfurnacetu.net

Although the primary purpose for the proposed pavilion is educating students this structure will also be enjoyed by a wide variety of visitors and community members. Construction of this 24' x 36' pavilion is vital for this "outdoor classroom" to succeed. Currently there are no shelter facilities at the campground or nearby on US Forest Service land. A pavilion at this location will provide a great day use opportunity for visitors, a venue for community gatherings and a onsite outdoor lab that can be used by Corps Rangers, teachers, conservation groups, and State or Federal agencies for all types of educational programs.

With the variety of partners involved and community involvement this project will surely become a catalyst to connect not only school students but community members and volunteers to the outdoors. Just the process of

building the pavilion and hosting the educational programs will support President Obama's AGO initiative not to mention all the other wonderful outdoor adventures that may spawn from this project.

Sustainability: This pavilion will serve the community and its visitors for at least 30 years. After its completion we hope to use volunteers and participating partners for the maintenance and upkeep of the structure when needed. This will keep O&M costs for the local corps project to a minimum. Because of the tough economic times people in the community and visitors cannot afford to travel long distances or pay hefty rental fees for meetings and family reunions at community buildings. This pavilion will help provide the local/regional community and its visitors with a cost efficient place to recreate. This pavilion will also provide a shelter and meeting place for visitors/campers during the first week of spring trout season which attracts thousands of visitors to the immediate area of Kellettsville (Tionesta Creek and Salmon Creek) and the Allegheny National Forest. Visitors to the campground help support local communities by shopping at local businesses in an extremely rural community.

Partnership Value: Without the initiative from Partners such as Iron Furnace Trout Unlimited and Dr. Bruce Dickson this project would never have been developed. IFTU has already invested over \$12000 in the real-time satellite station that is located on Salmon Creek and IFTU in-kind services for installation and operation has approximately \$1,500. Additional STEM Grant funding (\$14,000.00) from the Forest County School District and Brookville School Districts will also indirectly support the project. Teachers and rangers will be trained by IFTU how to operate and install loggers and collect data/interpret the data to students. Without the STEM Grant money from the schools and enthusiastic volunteers like IFTU the project would not have a solid foundation. After the pavilion is completed the partners will continue to donate their labor to continue the program and maintain the structure. With this seed money we can not only build a pavilion but also create a facility where education is a constant and the genesis of new partnerships are always possible.

Recreational Benefit: The pavilion will improve and increase recreational experiences for a wide variety of enthusiasts. Kellettsville located directly on Tionesta Creek is a mecca for outdoor activities including fishing, hiking, hunting, bird watching and especially canoeing and kayaking. The location of the pavilion is perfect for a meeting spot and launch point for canoe and kayak trips. The pavilion is also located only a few hundred feet from the North Country Trail where hikers could meet and use as a destination point. Also as mentioned in the sustainability section, the recreational benefit of the pavilion would be greatest during the first week of trout season and deer season when thousands of visitors come to fish and hunt in the Tionesta Creek/Salmon Creek watersheds. Because of its location along Tionesta Creek the pavilion will be extremely popular for these water based activities. In turn the pavilion will provide families and children a place to learn healthy active lifestyle choices.

By increasing and improving access for water based recreation along Tionesta Creek the multipurpose pavilion meets AGO (America Get Outdoors) Campaign goals. The partnerships created in the community and local economy will provide improved facilities for the public.

Environmental Stewardship: The pavilions primary purpose will be as an outdoor education laboratory and classroom. This alone will instill in the students the principles of environmental stewardship and build a sense of pride for the community they live in. Water quality is going to be a central part of student's lessons (data collect from the real-time monitoring stations is temperature, pH, conductivity, dissolved oxygen, and turbidity. The current expansion in the oil and gas industry especially, with the Marcellus Shale (deep well) exploration can have a negative impact on water quality. Numerous shallow wells and a Marcellus deep well are located within the drainage area of the Salmon Creek. The real-time monitoring station serve as a first line indicator of changes in WQ if contaminants are present due to spills or other threats. The project will relate land use activities (oil/gas

development, timber management) with water quality and stream health and instill in students the importance of using environmentally sound practices to protect our resources.

Communication and Education Value: The proposed multipurpose pavilion will be located in the Kellettsville Recreation Area along Tionesta Creek and within a ¼ mile of the Salmon Creek WQMD(Water Quality Monitoring Device). This is an ideal location for an outdoor classroom and learning environment. The pavilion will also serve as a venue for a variety of USACE and other agencies presentations. Presentations might include environmental stewardship, fish and wildlife interpretation, water safety, and safe public recreation. This area is also rich in historical and cultural resources especially related to the timber industry and the history of Allegheny National Forest. Overall the Kellettsville Campground pavilion will provide an excellent location for education on a variety of different levels and subjects.

Innovativeness: This pavilion is one of a kind in the area and no others exist in Kellettsville or in the community. Although the idea of an outdoor classroom/lab is not necessarily a unique idea the fact that it would be the only one in the school district makes it important. The students and teachers that participate in this program will take “ownership” of the facility and will learn firsthand how valuable and unique the resources are that exist in the area where they live. Sometimes it takes hands on approach like an outdoor classroom to spark a student’s interest in a subject that would perhaps be considered dry if taught from a book in a traditional classroom setting.

The community where the pavilion is located in is very rural. Forest County is one of Pennsylvania’s least populated counties and smallest when it comes to land mass. The pavilion is another innovative way to attract more visitors to an area that heavily depends on recreational activities for economic support. Without this funding and a tough FY13 budget, the Corps will not be able to build the pavilion. If the seed money is received the students will get to have a unique learning experience while the community will have a facility available for a variety of recreational opportunities. The multipurpose pavilion will serve as a venue for a wide variety of interest groups.

The Corps will:

Provide a picnic pavilion kit (24'X36'), fill material, concrete slab, materials for tables, and landscape supplies. Electric will also be supplied to the pavilion from the nearby rest room.

Assist with oversight of volunteers.

The Partner(s) will:

Trout Unlimited (Iron Furnace Chapter) already has the real time monitoring station in place and will provide the technical expertise through Dr. Bruce Dickson for training the educators on how the equipment works and how it should be presented to the students. Dr. Dickson will also seek the services of a general contractor to install a pavilion and oversee this process. Other TU members will help in the construction of the pavillion.

Boy Scout Troop and Cub Scout Packs 72, and 82 will work as volunteers in assembling the tables together and landscaping around the pavilion.

The US Forest Service will provide fill material from a local pit to use as the base of the pavillion prior to pouring concrete.

Forest Area School District will provide STEM grant money to allow the teachers at East and West Forest to transport and educate the students in the outdoor classroom. They will also provide volunteer labor by incorporating their vocational tech students into the building process.

Challenge Partnership Financial Work Sheet

Corps Project Name: Tionesta Lake

Work Project Title: Kellettsville Multipurpose Pavilion

POC Name: Jason Quinn

Address: 477 Spillway Drive

City: Tionesta

State: PA

Zip Code: 16353

Telephone: 8147553512

Location on Project: Kellettsville Campground

Partner Organization 1: Trout Unlimited (Iron Furnace Chapter)

POC Name: Bruce Dickson

Address: PO Box 324

City: Clarion

State: PA

Zip Code: 16214

Telephone: 814-227-9126

Partner Organization 2: Forest Area School District

POC Name: Rick Smith (Superintendent)

Address: 720 Route 62

City: : Tionesta

State: PA

Zip Code: 16353

Telephone: 8147554491

Partner Organization 3: Boy Scouts of America, French Creek Council,(Troop 82)

POC Name: Rick Witherell

Address: 552 Smokey Hill PO Box 115

City: Tionesta

State: PA

Zip Code: 16353

Telephone: 8147554408

Proposed start date of work: Apr-13

Simple description of work to be accomplished through the partnership: Construction of 24' by 36' pavilion for multiple uses including an outdoor classroom and recreational gathering point.

Double click on spreadsheet to access data entry fields:

Partner Organization 4: United States Forest Service (Allegheny National Forest)

POC Name: Chuck Keepports (Hydrologist)

Address: 4 Farm Colony Drive

City: Warren

State: PA

Zip Code: 16365

Telephone: 8147286169

	Local Corps Office	Handshake Funds	SCA	Partner 1	Partner 2	Partner 3	Partner 4	Partner 5	Partner 6
In-Kind Services	\$3,000	N/A	\$0	\$1,500		\$0	\$0	\$0	\$0
Travel	\$0	N/A	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Materials and Supplies	\$100	\$16,260	N/A	\$0		\$0	\$2,500	\$0	\$0
Equipment Use	\$1,000	\$2,250	N/A	\$0	\$0	\$0	\$0	\$0	\$0
Funds Contributed	N/A	N/A	N/A	\$0	\$0	\$0	\$0	\$0	\$0
Personal Property	N/A	N/A	N/A	\$0	\$0	\$0	\$0	\$0	\$0
Volunteer	N/A	N/A	\$0	\$1,000	\$500	\$800	\$0	\$0	\$0
SCA Intern/Crew	\$0	\$0	N/A	\$0	\$0	\$0	\$0	\$0	\$0
Other (explain below)	\$0	\$0	N/A	\$13,500	\$14,000	\$0		\$0	\$0
Total	\$4,100	\$18,510	\$0	\$16,000	\$14,500	\$800	\$2,500	\$0	\$0
Share of Total Cost	7%	33%	0%	28%	26%	1%	4%	0%	0%

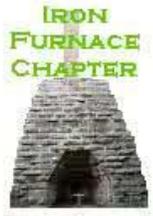
Explanations: The amount in the “other “category for partner 1(trout unlimited) reflects the amount invested in the Water Quality Monitoring Device that is already in place along Salmon Creek.

The “other’ category for partner 2 represents the STEM (Science, Technology, Engineering, and Math) grant that will be used by the school districts to transport and teach the students at the pavilion.

Materials and Supplies	Estimate
24 x 36 Pavillion Bldg. (w/electrical)	\$6,000.00
Concrete (18 yards)	\$2,160.00
Picnic Tables	\$600.00
Construction Cost (Bldg)	\$7,500.00
Excavation/Leveling	\$1,500.00
Fill Trucking	\$750.00
Cost	\$18,510.00
 Bldg is King Estimate	
 Fill Value	 \$2,500.00



Iron Furnace Trout Unlimited Allegheny National Forest Water Quality Monitoring Program



Water Quality Monitoring in the Upper Allegheny River Basin

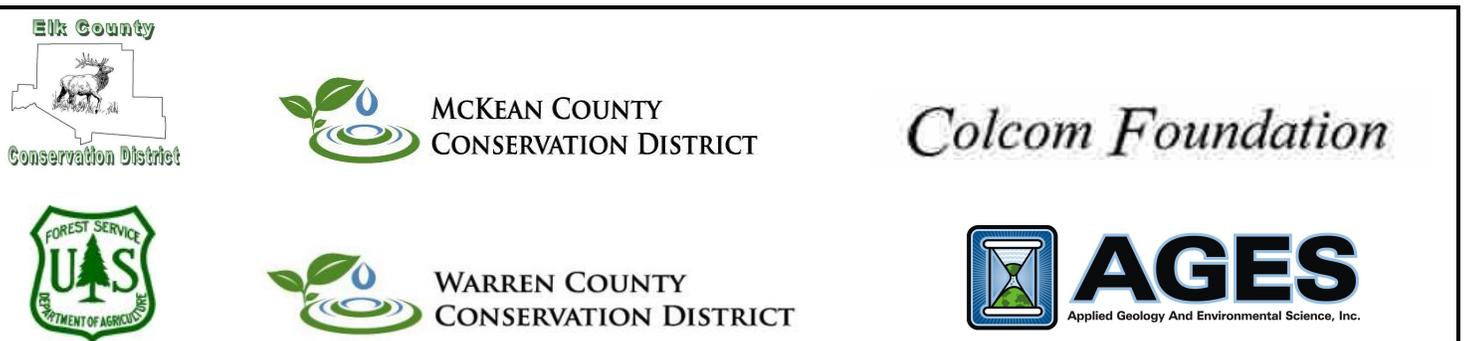
The Iron Furnace Chapter of Trout Unlimited is based in Clarion, Pennsylvania and serves approximately 105 members located across Clarion, Jefferson, Forest, and Elk Counties. IFTU is one of over 400 Trout Unlimited chapters nationwide dedicated to the conservation of cold water resources. Our members actively utilize watersheds across western Pennsylvania. The rapid development of the Marcellus shale for natural gas production has expanded the concerns of our members and others in the conservation and recreation community. The scale at which these activities are occurring have the potential to further erode the quality of local/regional water resources that are already under pressure from road network development, fragmentation, sedimentation, acidification, and climate change.

Ongoing development of shallow oil and gas leases and an explosion of Marcellus permit applications and siting activities have IFTU particularly concerned about watersheds in the Allegheny National Forest (ANF) in Forest, Elk, McKean, and Warren counties that support important cold water fisheries. Many streams in the ANF maintain natural reproducing populations of Eastern Brook Trout (*Salvelinus fontinalis*). These resources attract visitors that help sustain local economies but also support a diverse set of biological communities that depend on clean, cold water ecosystems.

The rapid expansion of Marcellus extraction activities on primarily public lands has prompted IFTU to initiate a three tiered program to help monitor activities and protect important water resources where needed. Our first effort (Tier I) in this initiative is the deployment of TU trained Coldwater Conservation Corps volunteers to monitor local watershed activities in our region. In addition, IFTU will broaden the scope of water quality monitoring in the ANF through the operation of a network of stations in smaller sub-watersheds using data loggers (Tier II) and in larger basins using permanent multi-parameter real-time stations (Tier III) in areas targeted for Marcellus development. Our monitoring approach is based on the successful network currently in use in the Susquehanna River watershed by the Susquehanna River Basin Commission.

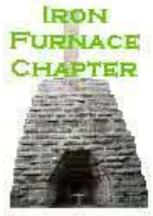
Network Overview – IFTU is establishing water quality monitoring capabilities in select portions of the Upper Allegheny Basin with a current focus on drainages within the Allegheny National Forest. The monitoring network will consist of data loggers and state-of-the-art monitoring and communication technology to collect and transmit real-time water quality data to establish baseline information, detect and document pollution incidents, and monitor potential impacts to regional waters.

Network Implementation – The IFTU network will initially consist of five (5) real-time monitoring stations and upwards of 10 data loggers in sub-basins in the Clarion River and Tionesta Creek drainages covering the eastern half of Forest County. Additional stations will be established by our cooperating partners in adjacent counties employing both real-time monitoring stations and data loggers. The monitoring network will allow IFTU, its partners, the oil and gas industry, and the public to make informed decisions regarding management and use of important water resources.





Iron Furnace Trout Unlimited Allegheny National Forest Water Quality Monitoring Program Instrumentation



The pictures on the left show the water quality datasonde and how the instrument is placed within the selected stream channel. The datasonde is secured either to the stream bottom itself, or contained within a PVC casing secured to the bank of the stream. It is connected by cables to the data platform and communications box shown at the bottom of the page.



The monitoring network will provide constant data collection with instruments sensitive enough to detect subtle changes in water quality on a frequency that will allow background conditions and any changes to them to be documented throughout the year. The following five water quality parameters are being measured at each station:

- Temperature
- pH – the measure of acidity or alkalinity, with normal ranges between 6 and 9
- Conductance – the ability of the water to conduct electricity, which typically reflects the amount of dissolved solids or chlorides in the water
- Dissolved oxygen – amount of oxygen in the water available to aquatic life, with levels best above 4-5 mg/L
- Turbidity – water clarity, or the amount of particulate matter in the water column



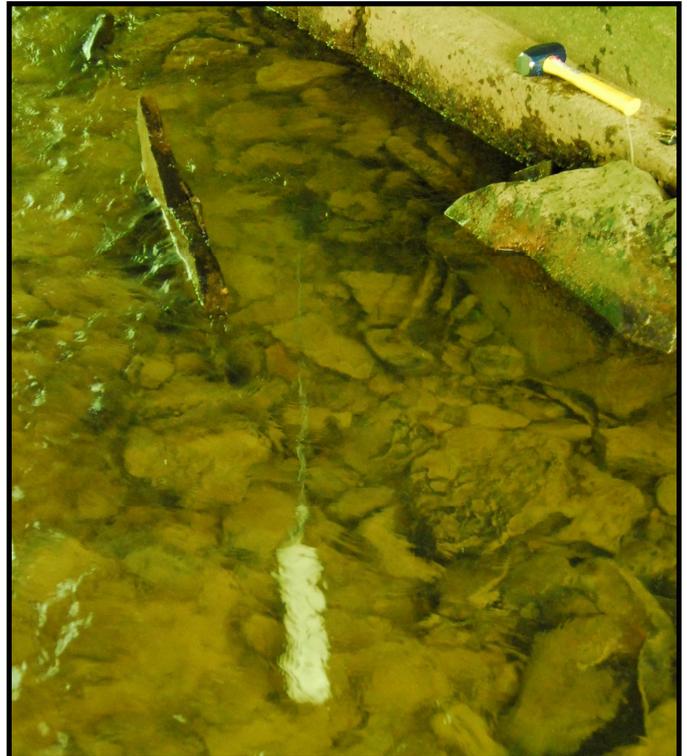
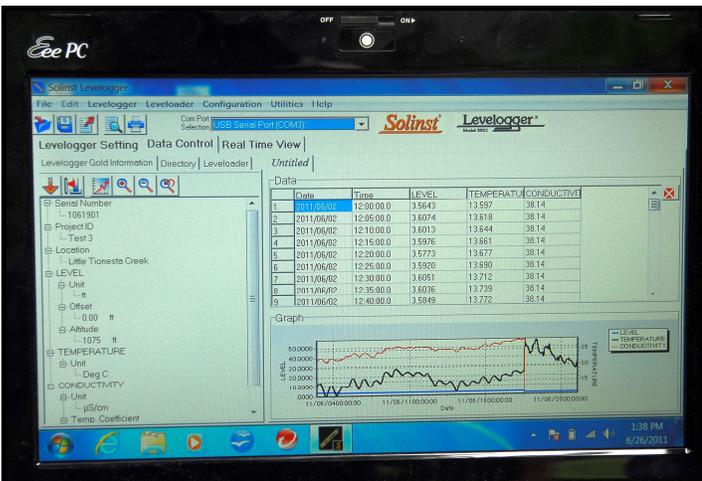
The photo at the right shows the data platform and communications box, as well as the solar panel used to power the entire station. This enables water quality data to be transmitted to remote databases and stored to document baseline conditions, analyzed for changes during seasonal events, or observed immediately to monitor current water quality conditions in relation to specific land management activities. Water quality data can also be associated with biological data (fisheries/macroinvertebrates) collected in the monitored watersheds in related research efforts.



In addition to permanently placed multi-parameter real-time water quality monitoring stations portable data loggers will be strategically placed in streams where land use alterations are taking place or on selected reference streams.

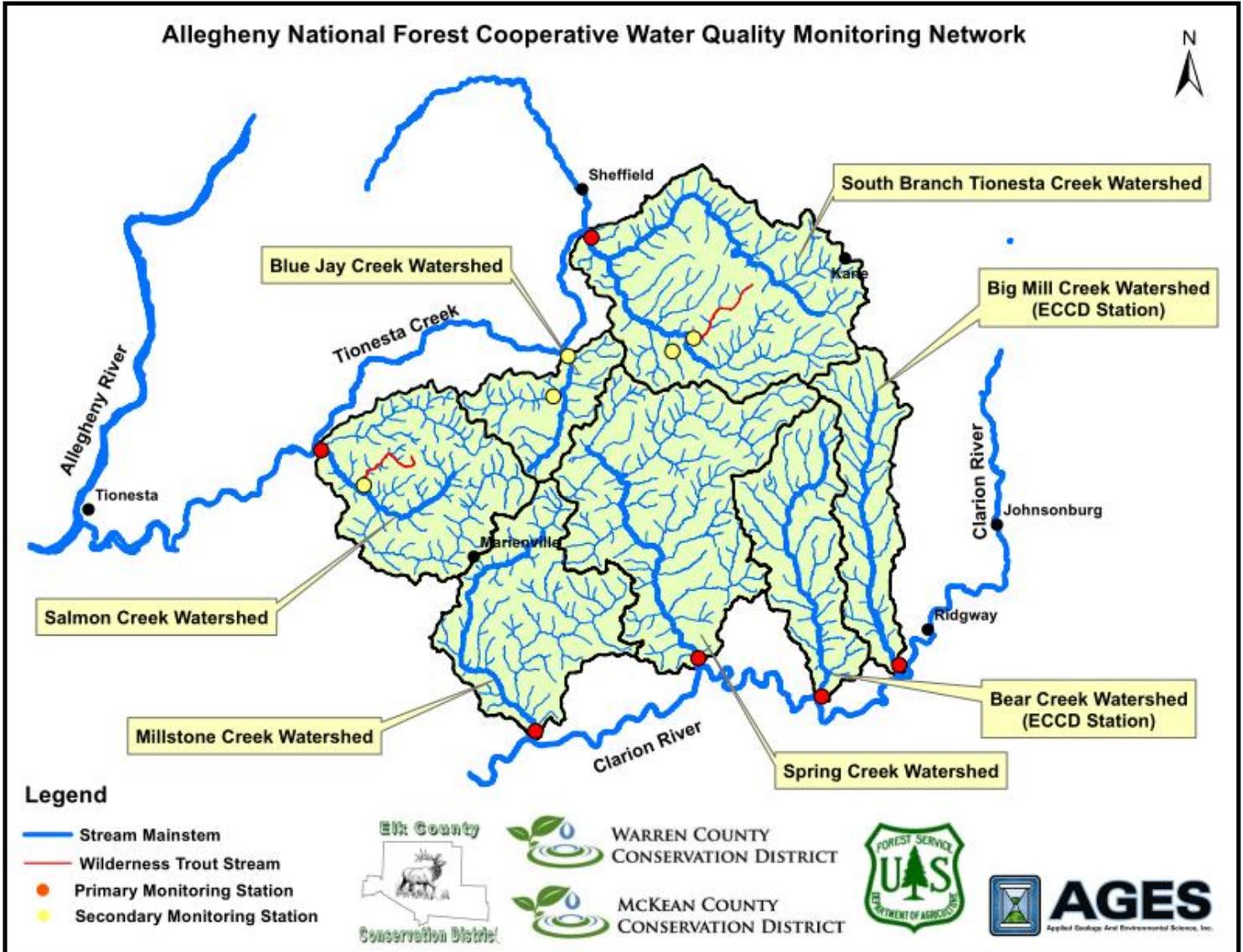
The data loggers are placed in protective housings and staked in small streams as compared to the much larger streams having permanent stations. Loggers can be moved easily and provide a means to rapidly monitor water quality as development activity moves within or between watersheds of concern.

Solinst loggers are programmed to record temperature, conductivity, and water level at 15 minute intervals. Data is stored internally by the loggers and periodically downloaded to a portable netbook. Data are archived and available for later analysis.





Iron Furnace Trout Unlimited Allegheny National Forest Water Quality Monitoring Program Network Map



The water quality monitoring network will expand as more funding becomes available and the cooperating partners can install equipment in locations of interest. At present Iron Furnace Trout Unlimited is working with the Elk County Conservation District, the McKean County Conservation District, the Warren County Conservation District, and the United States Forest Service to develop the monitoring network. The project is funded by a grant from the Colcom Foundation, Pittsburgh, PA. Project management and technical guidance is provided by Applied Geology and Environmental Science, Clinton, PA.

For additional information please contact:

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Colcom Foundation

