CENTRAL LAKE ERIE BASIN COLLABORATIVE  
Consultant Support for Development of  
Stream and Wetland Restoration Conceptual Plans  
REQUEST FOR PROPOSALS  
May 10, 2017

SECTION A: SERVICES

The Central Lake Erie Basin Collaborative (“Collaborative”) is issuing this Request for Proposals (RFP) for a qualified engineering/consulting firm (Contractor) to provide comprehensive conceptual plans, detailed construction cost estimates, descriptions of potential permit requirements and utility conflicts, schematics, site maps and other images for the following:

- Site 1: Cleveland Metroparks Brecksville Reservation Headcut Restoration
- Site 2: South Russell Village Headwater Stream Restoration
- Site 3: Healey Creek Floodplain Reconnection
- Site 4: Snow Road Picnic Area Stream Restoration/Floodplain Connectivity

This project is funded through grants awarded to Collaborative partners, including an Ohio Environmental Protection Agency Section 319 Grant with matching funds from the George Gund Foundation and The Cleveland Foundation. The contract will include coordination with Collaborative partners, including Chagrin River Watershed Partners, Inc. (CRWP), West Creek Conservancy, Doan Brook Watershed Partnership, The Nature Conservancy, and other Collaborative organizations.

The total maximum cost/price for performance under this contract is $50,000. This maximum amount of $50,000 shall not be exceeded under any circumstances unless written authorization is obtained from the Collaborative partners. Candidates are strongly encouraged to provide discussion and comment on alternative approaches to achieve the restoration objectives identified for each site, and to propose alternate and/or complimentary tasks to complete the project more economically.

SECTION B: DESCRIPTION/SPECIFICATIONS/SCOPE OF SERVICES

BACKGROUND

The Collaborative is a network of organizations and volunteer-based initiatives that work cooperatively to preserve and restore Lake Erie’s watersheds in Northern Ohio. With public and private grant and foundation support, Chagrin River Watershed Partners and West Creek Conservancy provide funding and technical assistance to expand the capacity of Collaborative organizations, including Firelands Coastal Tributaries, Rocky River Watershed Council, Cuyahoga River Restoration, Big Creek Connects, West Creek Conservancy, Tinker’s Creek Watershed Partners, Friends of Euclid Creek, Doan Brook Watershed Partnership, Chagrin River Watershed Partners, Mentor Marsh/Arcola Creek/McKinley Creek, Grand River Partnership, Ashtabula River Partnership, Conneaut Creek Partnership, Dugway Brook/Nine Mile/Green, Black River Area of Concern, Mill Creek Watershed Partnership, Friends of Vermilion River, Friends of Huron River, Chippewa Creek, Brandywine Creek, Friends of Yellow Creek, Friends of the Crooked River, Middle Cuyahoga and Breakneck Creek. Participating groups assist one another to preserve and restore watersheds, educate the public, and implement water quality and habitat improvement projects.
For more information about the Collaborative, please call Chagrin River Watershed Partners, Inc. at 440-975-3870 or West Creek Conservancy at 216-749-3720.

The Collaborative received an Ohio Environmental Protection Agency Section 319 Grant with matching funds from the George Gund Foundation and The Cleveland Foundation to fund the development of comprehensive conceptual plans for four (4) restoration projects within Central Lake Erie Basin watersheds. Site selection was informed through a competitive Call for Projects, requiring that proposed projects demonstrate predicted water quality benefits and potential for future funding and implementation, and that project sites be accessible for investigation and design development by the applicant and the selected consultant.

**SITE SUMMARIES**

**Site 1: Cleveland Metroparks Brecksville Reservation Headcut Restoration** is located in the Willow Lake-Cuyahoga River subwatershed (12-digit HUC: 041100020505) of the Cuyahoga River watershed (see attached Site Map A). This project is located within the Cuyahoga River Area of Concern in the City of Brecksville, Cuyahoga County, Ohio.

The Cuyahoga River flows adjacent to and through Cleveland Metroparks Brecksville Reservation. The southern portion of Brecksville Reservation contains and protects a series of primary headwater tributaries to the Cuyahoga River. These headwater streams are experiencing headcuts, which are actively eroding the stream channels and contributing to sedimentation downstream and in the Lower Cuyahoga River. In 2016, Cleveland Metroparks staff surveyed 151 headcuts throughout this portion of Brecksville Reservation. The surveyed headcuts ranged in size from 9” to 545” in height and 4.5” to 780” in width, with an average height of 37” and an average width of 70”. A number of the surveyed headcuts are located adjacent to infrastructure – a segment of the Buckeye Trail, which is a 1,444-mile trail that loops the State of Ohio, or a natural gas pipeline corridor that runs through Brecksville Reservation. Further erosion of these headwater streams threatens the stability of these important pieces of infrastructure. As a result, 11 of the surveyed sites have been identified as priority headcut sites for restoration and this project will focus on these priority headcut sites. The team anticipates that a similar approach may be applied to the various headcuts. The expected product is a standard approach to addressing headcuts in sand-dominated systems. Due to the forested community surrounding the primary headwaters, the concept should plan for as little disturbance as possible.

There are 3 Aquatic Life Use Attainment sites within the project area of interest. The furthest upstream site has an IBI score of 34, MIwb score of 8.8, ICI score of 50, and QHEI score of 83.5 and is designated as “partial attainment” in the Ohio EPA Integrated Report. The mid site has an IBI score of 34, MIwb score of 8.25, and QHEI score of 83.5 and is designated as “partial attainment” in the Ohio EPA Integrated Report. The furthest downstream site has an IBI score of 26, MIwb score of 5.95, ICI score of 24, and QHEI score of 56 and is designated as in “non-attainment” in the Ohio EPA Integrated Report. These scores reduce in quality as you move downstream. The proposed restoration will help bring the scores up by reducing overall sedimentation of the river. Sedimentation is one of the major sources of impairments listed in the Lower Cuyahoga's TMDL (OEPA 2003). Additionally, this project will work towards delisting of the Cuyahoga River as an AOC. Reductions in sedimentation will aid in the delisting of BUIs for the Cuyahoga River including restrictions on navigational dredging and loss of fish population.

Cleveland Metroparks is the property owner and organizational partner for this project.
Site 2: South Russell Village Headwater Stream Restoration is in the McFarland Creek-Aurora Branch subwatershed (12-digit HUC: 041100030303) of the Chagrin River watershed (see attached Site Map B). The project site is located on the southeast corner of the intersection of Chillicothe Road (State Route 306) and Bell Street within the Village of South Russell, Geauga County, Ohio. The site is at the headwaters of the North Branch of McFarland Creek, a coldwater habitat stream within the McFarland Creek – Aurora Branch 12-digit HUC watershed that eventually drains to the Aurora Branch of the Chagrin River. At the project site, an unnamed headwater stream that is currently impacted by flooding and has water quality concerns due to urban stormwater inputs within the Village of South Russell.

At its crossing with State Route 306, this unnamed headwater stream receives stormwater draining from Village property and portions of Kensington Green, a residential development established in the late 1980s and before the existence of stormwater regulations. Much of the land at Kensington Green was tiled during its prior use as the Chagrin Falls Airport, but many of these drain tiles have been broken or removed since residential development. Much of the stormwater within Kensington Green is collected through storm sewer drains and natural drainages into a 2.3-acre recreational pond (called Bullfrog Pond) owned by the Home Owners’ Association (HOA). Bullfrog Pond outlets to an unnamed headwater stream that flows along a Village drainage easement through a wooded area and onto Village property south of Village Hall before flowing west through a culvert under State Route 306. This pond does not provide any stormwater storage, but could be retrofitted with a new outlet structure to improve water quality and protect the headwater stream. Additionally, the pond currently has a steep drop-off from the banks, and some members of the HOA have expressed support of incorporating a wetland bench. Native plants in the wetland bench would help prevent erosion, increase nutrient uptake, and provide wildlife habitat. Downstream of the pond, a combination of low permeability soils and maintenance of turf grass (lack of deep-rooted and woody riparian vegetation) has contributed to ponding of stormwater, gully erosion, and flooding in the area south of Village Hall both east and west of State Route 306.

The project area is mapped as Wadsworth silt loam which belongs to hydrologic soil group C (Soil Survey of Geauga County, Ohio). Areas of the hydric Sebring soil are included in depressions in this map unit. Village officials note that the common areas in Kensington Green may include fill soil, which could impact the potential for wetland development.

Including drainages added by way of the Kensington Green storm sewer system, the drainage area for the unnamed headwater stream is approximately 0.09 square miles at its crossing with State Route 306. This drainage area is 18.5 percent covered in impervious surfaces, exceeding the 10 percent impervious cover threshold for drainages at which aquatic communities have been demonstrated to show water quality and habitat impairments (Center for Watershed Protection, “Impervious Cover Model”). This headwater stream is unassessed by the Ohio Environmental Protection Agency (EPA) and has not received an aquatic life use designation or attainment status. The unnamed headwater stream drains to the North Branch of McFarland Creek, located within the McFarland Creek-Aurora Branch HUC-12 watershed. CRWP performed a pre-restoration QHEI assessment for a 269-ft reach of this unnamed headwater stream just upstream and downstream of State Route 306 on February 24, 2017, in the area targeted for stream restoration. The stream received a QHEI score of 31.25 (“Poor” narrative) due to poor quality substrates, poor instream
cover, poor channel morphology, lack of riparian vegetation and poor quality floodplain, and poor pool/glide and riffle/run quality. Due to the small drainage area (≤1 square mile) of this headwater stream and a lack of pools ≥40 centimeters, a Level 1 Primary Headwater Habitat Evaluation Index (HHEI) assessment was also performed on February 24, 2017. The stream received a Level 1 HHEI score of 47, indicating the stream was a Modified Class II primary headwater habitat stream.

Monitoring by the Ohio EPA in 2004 indicated that the North Branch of McFarland Creek at RM 0.1 is in full attainment of its coldwater aquatic life use designation due to the presence of coldwater fish and macroinvertebrate taxa. McFarland Creek is in partial attainment of its exceptional warmwater habitat use from RM 2.30 to the mouth (RM 0.20). Field observations indicate excessive siltation and embedded rock substrates as a significant cause of nonattainment. Site-specific goals for this project are to reach a post-construction QHEI score of 55 (reaching a “Good” narrative) and a post-construction HHEI score of 56 (potential Class III primary headwater habitat) through improvements to the riparian zone, substrate and channel morphology.

This project will be implemented in partnership with Chagrin River Watershed Partners, Inc. (CRWP). Property owners include the Village of South Russell and other private landowners.

**Site 3: Healey Creek Floodplain Reconnection** is in the Headwaters East Branch Rocky River subwatershed (12-digit HUC watershed: 041100010201) of the Rocky River watershed (see attached Site Map C). North Park is a 65-acre city park owned and operated by the City of Brunswick in Medina County, Ohio. Healey Creek flows west-to-east through the northern, wooded section of the park. Healey Creek is a tributary to the East Branch Rocky River in the Headwaters East Branch Watershed. It is incised as it flows through North Park, and spoil material from historical dredging lines portions of the channel. This dredging-initiated incision has been exacerbated by development patterns in upper Healey Creek. The 0.87-mile area draining to the proposed project site is 84% developed and 20% impervious. According to the Headwaters East Branch NPS-IS, the upper 2.8 miles of Healey Creek, including the project site, are in nonattainment of their Warmwater Habitat Designated Aquatic Life and Recreational Uses. Causes of impairment are habitat modification and other flow regime alterations, and sources are urbanization, discharges from Municipal Separate Storm Sewer Systems (MS4), and hydromodification. Localized flooding and erosion problems plague Healey Creek for several miles downstream of the proposed project site in North Park, due to the urbanized, flashy nature of the system and the loss of floodplain access.

The proposed project will restore floodplain connectivity to approximately 2000 linear feet of Healey Creek. Floodplain reconnection in this segment would restore channel hydraulics and morphology, improving habitat throughout the project reach. Additionally, the reconnection of (conservatively) 6 acres of floodplain would reduce peak flows downstream, reducing flooding and erosion and adding resilience in the face of a changing climate. Additional benefits include the opportunity to create forested floodplain wetlands.

Project partners include the City of Brunswick (landowner), Rocky River Watershed Council, and Cuyahoga Soil and Water Conservation District.

**Site 4: Snow Road Picnic Area Stream Restoration/ Floodplain Connectivity** is in the Big Creek watershed (12-digit HUC watershed: 041100020603) of the Cuyahoga River watershed (see
attached Site Map D). The Big Creek watershed is heavily developed (75%) and much of the creek’s tributaries are culverted with little to no floodplain connectivity. Most of the Big Creek watershed is in non-attainment of its aquatic life use designation. Snow Road picnic area is part of Cleveland Metroparks Big Creek Reservation. Big Creek flows south-to-north through the eastern portion of the picnic area with an unnamed tributary that enters Big Creek from the east. The project site has over 1,000 linear feet of mainstem Big Creek along with some degraded headwater streams that are on the Metroparks Natural Resources priority list for restoration. Manmade walls confine the Creek and tributary, leading to stream incision and floodplain disconnection.

The proposed project will restore floodplain connectivity to Big Creek and/or the unnamed tributary. Failing revetment should be evaluated for removal, replacement or enhancement and alternative streambank stabilization measures should be proposed. The project will enhance the riparian buffer.

Project partners include the Cleveland Metroparks (landowner), Big Creek Connects, and West Creek Conservancy.

SECTION C: CONTRACTOR SCOPE OF SERVICES

Through this Request for Proposals, the Collaborative will select a contractor to provide recommendations and conceptual planning for the proposed stream and wetland restorations at Sites 1 – 4. The Contractor must have experience in designing at least two successful stream restoration projects and two successful wetland restoration/conversion projects.

At Site 1, the selected contractor shall analyze impacts to primary headwater streams by headcuts at Brecksville Reservation. The contractor shall determine the best and least invasive method of restoration and stabilization for 5 - 10 of the surveyed priority headcut sites and restore a total of 2,500 linear feet of primary headwater streams throughout the southern portion of Brecksville Reservation. The design standards that result from this work should be applicable throughout the watershed and throughout similar urban watersheds. The final number of headcuts to be restored will be dependent on the necessary work at each site and the costs associated with the restoration work.

At Site 2, the selected contractor shall determine the best method of restoration to retrofit a recreational pond, restore 3.8 acres of wetland, revegetate 0.7 acres of riparian zone, and restore 650 linear feet of an unnamed headwater stream that is currently impacted by flooding and has water quality concerns due to urban stormwater inputs within the Village of South Russell. Approximately 275 linear feet of headwater stream will be restored on either side of State Route 306 using natural channel design principles to improve biological habitat and hydrologic conditions. Riparian wetlands will be included in this plan to the greatest degree practicable. This component will also include the installation of 0.4 acres of riparian tree plantings in a former septic leach field that is currently maintained as mowed turf grass. This area should also be evaluated for its suitability for wetland restoration.

The consultant will also evaluate wetland restoration potential and pond retrofit opportunities on upstream property owned by the Kensington Green HOA. Consultants will consider modifications
to Bullfrog Pond to increase its stormwater storage capacity, minimize thermal impacts, and improve its habitat function. Currently, there is no outlet control structure to manage stormwater quantity or quality during high flow events. These modifications may include changing the inlet and outlet structures to retain additional stormwater and release cooler water from the bottom of the pond, adding approximately 0.3 acres of native riparian vegetation around the pond to stabilize eroding banks and shade the water, and adding an aquatic bench to promote shallow wetland habitat and enhance safety around the edge of the pond. Immediately downstream of the pond, approximately 100 linear feet of receiving stream would also be restored using natural channel design principles. Conceptual planning could also determine if there would be additional habitat and biological benefits for the stream by reducing the size of the pond, taking it off-line and restoring up to 275 linear feet of additional stream to its original corridor.

At its headwaters, this stream flows intermittently through a common area currently managed as mowed turf grass before it drains to Bullfrog Pond through a storm sewer and culvert. This area is poorly drained and may benefit from 0.8 acres of wetland restoration to increase stormwater storage and improve water quality. Similarly, a recreational common space (The Green of Kensington Green) is also poorly drained. This area drains to Bullfrog Pond through both storm sewers and natural drainages. Currently, The Green is approximately 50 percent forested and the remainder is maintained as mowed turf grass, with paved walking paths throughout the entire area. The restoration of a portion of this common space (approximately 3 acres) into wet meadow and/or forested wetland would improve water quality and provide habitat to wetland species. Alternatively, conceptual planning could also investigate the use of bios wales and/or bioretention in this area.

At Site 3, the selected contractor shall analyze dredging-initiated incision along Healey Creek at North Park. The contractor shall determine the best method of restoration to restore floodplain connectivity to approximately 2,000 linear feet of Healey Creek. Due to the forested nature of this stream segment, solutions that have little or no impact to the adjacent forest – such as raising the channel invert or possibly overflow/diversion channels – will be considered.

At Site 4, the selected contractor shall analyze floodplain connectivity of Big Creek. The contractor shall determine the best method of restoration to restore 850 linear feet of Big Creek and reconnect it to its floodplain. Restoration should expand the riparian zone from a 15-ft wide x 5.5-ft high bank height stream to 25 - 100ft wide in a manner that does not impede on park functionality. This riparian expansion will help disperse the flow and will lessen the direct incision on the banks of this stretch of stream. There are some historic walls that line the river that will stay intact directly downstream of the project area. The project area has open riparian area that is primed for this type of restoration.

All conceptual plans will be completed in accordance with the goals of the Ohio Environmental Protection Agency 319 Grant and in cooperation with Collaborative partners. Conceptual plans should address/reduce water quality and habitat impairments identified for the sites in this RFP. A summary of the contractor scope of services and proposed schedule are as follows:

**CONTRACTOR SCOPE OF SERVICES**

1. Provide comprehensive conceptual plans with detailed cost estimates, descriptions of potential permit requirements and utility conflicts, schematics, site maps and other images
for the proposed restoration at Sites 1 - 4 to address problems/impairments detailed in Sections B and C.

2. All plans should include at least two conceptual plan alternatives for consideration by landowners and/or host Collaborative organizations.

3. Assess the baseline conditions of the streams and wetlands targeted for restoration (QHEI or ORAM) and estimated project degree of ecological improvement (increase in QHEI/or ORAM scores) expected if the proposed restoration approach is implemented.

4. Include relevant typical details of proposed restoration techniques.

5. Provide a written explanation of the proposed restoration approach with justification of how the proposed work will improve on-site conditions and benefit downstream areas/the watershed.

6. All plans must meet or exceed the goals identified in the awarded Ohio Environmental Protection Agency 319 Grant for this work. Revise plans based on comments from Collaborative partners and regulatory agencies.

7. All plans must include an inventory of all necessary local, state, and federal permits needed to complete the proposed work, including but not limited to U.S. Army Corps of Engineers, Ohio EPA, and Ohio Department of Natural Resources.

8. All materials, reports, surveys, delineations, plans, etc. will be available to Collaborative partners to use for educational materials and signage, grant documentation and reporting, permitting, future grant proposals, and future construction.

9. Provide estimated pollutant load reductions using approved Ohio EPA models such as STEPL and Region 5.

PROJECT DELIVERABLES
- Three (3) sets of conceptual plans with detailed cost estimates, descriptions of potential permit requirements and utility conflicts, schematics, site maps, and other images for each project site.
- One (1) set of electronic drawing files in AutoCAD format for each project site, any generated ArcGIS shapefiles, all electronic files developed for each conceptual plan.

PROPOSED SCHEDULE
June 9, 2017: Proposals must be received by the Collaborative Steering Committee by 4:00 pm. Proposals will only be accepted electronically.
June 16, 2017: Anticipated date to award contract.
June 19 – June 30, 2017: Kickoff and review meetings for each project by Collaborative partners.
July 28, 2017: Conceptual plans and other project deliverables finalized and delivered to Collaborative partners.

SECTION D: REQUIREMENTS

GENERAL
In the performance of the duties and obligations under the Ohio EPA Section 319 Grant Agreement, contractor shall comply with all applicable:
   a. Ohio Governor Executive Orders;
   b. Federal, state and local laws, regulations (rules), assurances, orders, and Ohio Department of Commerce Prevailing Wage Guidelines, regarding prevailing wages, deductions, worker compensation, taxes, social security and unemployment, compensation, and any contributions thereto; and
c. Federal state, and local laws and regulations (rules, ordinances), assurances, and orders, whether or not specifically referenced herein.

d. All terms and conditions of Ohio EPA Section 319 grant 16(h)EPA-14: “Central Lake Erie Basin Collaborative Implementation Project”.

**LIABILITY**
The Contractor agrees to indemnify and to hold Chagrin River Watershed Partners, Inc., West Creek Conservancy, Doan Brook Watershed Partnership, The Nature Conservancy, and the Collaborative organizations (including Firelands Coastal Tributaries, Rocky River Watershed Council, Cuyahoga River Restoration, Big Creek Connects, West Creek Conservancy, Tinker’s Creek Watershed Partners, Friends of Euclid Creek, Doan Brook Watershed Partnership, Chagrin River Watershed Partners, Mentor Marsh/Arcola Creek/Mckinley Creek, Grand River Partnership, Ashtabula River Partnership, Conneaut Creek Partnership, Dugway Brook/Nine Mile/Green, Black River Area of Concern, Mill Creek Watershed Partnership, Friends of Vermilion River, Friends of Huron River, Chippewa Creek, Brandywine Creek, Friends of Yellow Creek, Friends of the Crooked River, Middle Cuyahoga and Breakneck Creek) and landowners (including Cleveland Metroparks, South Russell Village, City of Brunswick, and other private landowners) harmless and immune from any and all claims for injury or damages arising from this Agreement which are attributable to Contractor’s own actions or omissions or those of its trustees, officers, agents, employees, subcontractors, suppliers, third parties utilized by Contractor, or joint venturers while acting under this Agreement. In no event shall either party be liable to the other party for indirect, consequential, incidental, special, or punitive damages, or lost profits.

**CONTRACTOR’S LIABILITY**
Throughout the contract period, the Contractor shall carry Workers’ Compensation Insurance, as required by the Ohio Workers’ Compensation Act, upon all its employees engaged in this work and shall be responsible to see that any sub-contractors carry such insurance on their employees. The Contractor shall also provide public liability and property damage insurance for the entire period, thus insuring the interests of all parties against any and all claims that may arise out of Contractor operations under the terms of this contract. It is agreed that in the event any carrier of such insurance exercises cancellation, notice will be made immediately to the Collaborative partners of such cancellation.

**TRANSFER OF RECORDS**
Data shall be collected and formatted in a manner consistent with common good engineering practices. All records (original tracings, maps, field sketches, lab reports, flow data, graphics originals, design calculations, electronic files including model input and output files, etc.) generated by the project shall be the property of the Collaborative and shall be turned over to the Collaborative upon completion or as directed.

**SECTION E: INSTRUCTION TO OFFERERS**

**PROPOSAL FORMAT**
In responding to this RFP, please submit a digital proposal addressing the following items:
1. Description of Professional engineer/consultant Understanding of the Project.
2. Description of Services to be Performed.
3. Assumptions and Expectations.
4. Cost Proposal. Please provide a cost proposal including total hours available, hours per staff, and direct labor by labor category; overhead and other direct costs; and profit.

5. Personal Experience and Resumes of Personnel.

6. Proposal shall include one certificate of personal property tax affidavit, certificate of real property tax affidavit, no collusion certificate, proof of worker’s compensation, and proof of liability insurance with a $1,000,000 minimum.

7. Three (3) References.

**SELECTION AND AWARD PROCESS**

The selection process will involve screening of submitted proposals and may include interviews. The Collaborative will select a contractor on the basis of contractor qualifications, understanding of the scope of services, and level of services to be provided. Any contract awarded under this invitation will be financed through an Ohio Environmental Protection Agency Section 319 Grant awarded to the Collaborative partners.

If interested, please submit a digital proposal to Derek Schafer at dschafer@westcreek.org and Heather Elmer at helmer@crwp.org. Submissions must be received no later than 4:00 pm, **June 9, 2017**. Proposals received after this date will not be accepted. The Collaborative expects to award the contract by/on **June 16, 2017**; however, the Collaborative reserves the right to not award a contract under this proposal. Work will commence after successful execution of a contract for services between the contractor and West Creek Conservancy on behalf of the Collaborative.

**Please direct questions to:**

Derek Schafer, Executive Director  
West Creek Conservancy  
dschafer@westcreek.org  
(216) 749-3720

Heather Elmer, Executive Director  
Chagrin River Watershed Partners  
helmer@crwp.org  
(440) 975-3870
Cleveland Metroparks Headcut Restoration Concept Plan

Map. Priority headcuts are identified by red dots; these headcuts are located adjacent to infrastructure. (As numbered in the site description above)
Location of Healey Creek in the Rocky River Watershed