Request for Proposals
Great Miami River Dam Removal Feasibility Study

Miami Soil and Water Conservation District
City of Troy, Ohio
City of Piqua, Ohio
United States Fish and Wildlife Service
1.0 Introduction

1.1 The Cities of Troy and Piqua (Cities) are exploring options of removing or augmenting their respective dams on the Great Miami River. These two cities have partnered with the U.S. Fish and Wildlife Service (USFWS) Partners for Fish and Wildlife Program (PFW) in Ohio, the USFWS Carterville Fish and Wildlife Conservation Office in Illinois, and the Miami Soil and Water Conservation District (SWCD) to complete a feasibility study to describe all effects of potential removal/modification of the structures described in 2.0 and shown in Appendix A.

1.2 This solicitation is intended for a single, exclusive agreement. This does not preclude the use of subcontractors.

2.0 Background

2.1 The City of Piqua has one small sheet piling dam upstream of the city (Appendix B). The second dam is a steel gate dam located south of downtown (Appendix C). The small sheet piling dam is used for raw drinking water intake from the pool it creates. The City of Piqua will retain the ability to use this pool as a water withdrawal source, and is seeking solutions to enhance fish passage and safety for recreational users (canoeing, kayaking, angling, etc) while maintaining the pool elevation. The second and larger structure should be evaluated for complete or partial removal. A partial removal solution would include safe passage for recreational users, functional fish passage, as well as sediment transport. Additional in-stream habitat throughout the dam pool should be included to encourage riffle/run/pool development for recreational activities (paddling, and fishing) and enhanced aquatic habitat.

One concrete low dam is located just below the City of Troy (Appendix D). The City of Troy no longer depends upon any services from this dam, and would like to investigate the feasibility of removing the dam to provide safe, improved recreational opportunities as well as restore fish passage and ecosystem processes. On the right descending bank, a levee wall runs along the riverfront. The base of the levee extends into the water and no floodplain exists on that side of the river. With the drawdown of the pool, the City of Troy hopes to create an upland corridor along the levee wall for a multi-use recreational trail, connecting the downtown Market St. Bridge to Treasure Island Park (Appendix E). Dam removal activities would need to ensure that the existing backwater pool area at Treasure Island Park is maintained.

3.0 Deliverable

3.1 The Cities would like to evaluate the outcomes associated with removal or augmentation of the dams to determine if one or more of the options are prudent, feasible, cost effective, and in the best interest of the people of their respective cities. This study will complete a review of possible dam removal/augmentation options, and associated impacts, so the Cities are well-informed and have the information necessary to consider removal/augmentation options in the future. The Cities have prepared this Request for Proposal (RFP) in cooperation with the project partners to solicit proposals from qualified consultants to provide the deliverables requested in the following scope of services.
4.0 Scope of Services

The consultant shall provide detail on their approach and deliverables for the following tasks and subtasks:

Task 1. Existing Data Collection and Review

1.1 Collect and review available data and resource information on file with the Cities of Troy and Piqua, Miami Conservancy District (MCD), Ohio Environmental Protection Agency (OEPA), Ohio Department of Natural Resources (ODNR), other state agencies, US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), other federal agencies and other applicable sources. Existing information can include but is not limited to the following studies:

1.1.1 Great Miami River Corridor: A Planning Assistance Study (USACE and Miami Conservancy District 2015)

1.1.2 Biological Assessment of the Great Miami River (Ohio EPA 2009)

1.1.3 Review and document the available existing data and resource information regarding the dams and dam sites such as aerial photographs, dam inspection reports, past studies, watershed history, potential contamination information, information regarding abutting property owners, information on fish, mussels and aquatic resources, and, information on cultural resources. Prepare a technical summary memorandum discussing these issues, as well as any additional critical issues discovered, of the dam, river and immediate area based on the information collected above, and likely impacts of dam removal.

Task 2. Field Survey and Base Mapping

2.1 Dam Structures Topography Survey - The consultant shall complete a field survey of the dam structures, and any impacted utilities and/or structures identified in Task 1. This should include property lines, wetland boundaries, floodplain boundaries, and existing easements.

2.2 River/Impoundment Survey - The consultant shall complete a river/impoundment survey of the project area of sufficient detail to conduct the hydrologic analyses outlined below in Task 4 using currently available data and additional data as necessary to address pertinent tasks. Describe the rationale for the extent of survey and methods outlined, and equipment availability to your respective contracting firm.

2.3 Existing Conditions Plan - Depict the structures, topography and impoundment bathymetry in plan view and cross section.

2.4 Deed and Title Search on the dam site and impoundment-abutting properties. As part of the Existing Conditions Plan preparation, the consultant shall complete a deed and title search using existing documents available from the Miami County Recorder’s Office. Property ownership, Plot and Lot Numbers, and property boundary information shall be used in preparing an Existing Conditions Plan for the dam site and will provide specific property information.
Task 3. Sediment Evaluation

3.1 The consultant shall prepare a sediment sampling plan to assess sediment quantity and quality, and physical parameters in the impounded areas upstream of the steel gate dam in the City of Piqua and upstream of the City of Troy dam. Work will be limited to sediment chemical analysis and physical parameters. Additional work may be deemed necessary in order to evaluate the ecological and/or human risk. If this additional work is necessary, the following work may be completed:
   - Add Alternative - Sediment Toxicity Bioassay
   - Add Alternative - Community Assessment

3.3 Analyze sediment transport capabilities and mobility in conjunction with Task 4.

3.4 Assess sediment impacts upstream and downstream relative to sediment analysis results, mobility, and deposition; and recommend appropriate sediment management options.

Task 4. Hydrology and Hydraulics Analysis

4.1 Conduct a hydrologic study on the Great Miami River including the railroad bridge, Market Street (HWY 55), and Adams Street bridge in the City of Troy, and the Garnsey Street Bridge, E. Main Street Bridge, Ohio to Indiana Trail Bridge, E. Ash Street Bridge, and N. Main Street (CR 25A) bridge in the City of Piqua, as well as the extent of impoundment and surrounding areas. Incorporate generated data into the dam removal analysis. Bridge footings will be reviewed and structural stability will need to be maintained after pool elevations are dropped.

4.2 Conduct a hydraulic analysis to predict water surface and velocity profiles for both existing and post-removal conditions of the City of Piqua steel gate dam and the City of Troy dam.
   *USFWS will assess the impacts of dam removal on the FEMA designated floodway.

4.3 Perform an analysis on all bridges listed in 4.1, foundations, water withdrawals, and any other impacted infrastructure, and impacted utilities identified in Task 1 to evaluate the potential impact of dam removal upstream and downstream.

4.4 Evaluate and summarize findings on the impact of dam removal on drinking well intake(s).

Task 5. Cultural Resources

5.1 Determine effect of project on identified historical and archaeological resources. Additional work may be considered to initiate/finalize compliance with Section 106 of the National Historic Preservation Act and with the Ohio State Historic Preservation Office (SHPO).
   - Add Alternative – Initiate consultation with Ohio SHPO
   - Add Alternative – Finalize consultation with Ohio SHPO
Task 6. Wildlife

6.1 Assess impact of current dam and dam removal on rare species, species of concern, threatened and endangered species, general wildlife, and habitat located both upstream and downstream of the project area, including an informal Section 7 consultation and consultation with Ohio DNR.

Task 7. Other Issues of Importance

7.1 Fish passage. Assess whether the site - if the dams are removed or augmented- would be passable by fishes native to the reach.

7.2 Structural bridge and infrastructure impacts. Assess impact of dam removal on the City of Troy bridges including the railroad bridge, Market Street (HWY 55), and Adams Street bridge, as well as the impacts to the City of Piqua bridges including Garnsey Street Bridge, E. Main Street Bridge, Ohio to Indiana Trail Bridge, E. Ash Street Bridge, and N. Main Street (CR 25A) bridge. Evaluate pier and foundation stability, and other infrastructure. Discuss appropriate project design options with bridge stability and other infrastructure.

7.3 Recreational Usage.

7.3.1 Assess the impact of dam removal on boating, angling, swimming and other recreational uses of the river and impoundment.

7.3.2 Removal of dam and placement of in-stream habitat will be completed in a way that still provides paddling access at low flow.

7.3.3 Removal of dam and in-stream habitat will ensure that the Treasure Island pool will be maintained at current elevations.

7.3.4 Develop a design to create an upland corridor along the levee wall for a multi-use recreational trail, connecting the downtown Market St. Bridge to Treasure Island Park.

7.3.5 Assess feasibility and create a design for a floodplain greenspace and multi-use trail along Water Street levee in the City of Troy.

7.3.6 The City of Piqua small sheet piling dam will have riffle structure development to provide safe paddling and fish passage.

7.3.7 Design natural paddling and play features spaced throughout the currently impounded reach in the City of Piqua, especially near Lock 9 Park.

7.4 Other socio-economic and political issues may arise during the consultant’s research and investigation on the Cities of Troy and Piqua dams. The consultant shall describe how such issues would be addressed and reported.

7.5 A conceptual design/rendering for each City is needed as the projects move from feasibility to restoration. Renderings should show each City how the area will look following the removal, and should include in-stream habitat as well. The City of Troy will require an additional rendering/conceptual design addressing the best method to maintain pool elevation in the Treasure Island Pool.

7.6 Water withdrawals – Evaluate the current usage of, and potential impact of dam removal on, surface water withdrawal facilities that utilize the Great Miami River.
Task 8. Public Meetings

8.1 Public meetings shall be held in each city to disseminate the findings of this study to all constituents and answer technical questions related to the study findings. Meetings shall be held both during standard workday and evening hours to accommodate a greater percentage of citizens than a single meeting time.

5.0 Selection Procedure

5.1 Proposals must be submitted in a sealed envelope plainly marked, “Great Miami River Dam Removal Feasibility Study”. Consultants are required to submit eight (8) original hard copies and one (1) electronic copy as a PDF of their package. PDFs will be submitted on CD. Double-sided copies are appreciated. The package shall include:

a. Technical Proposal, not to exceed twenty (20) typed, single-spaced pages.
b. Statement of Qualifications and directly relevant work experience, not to exceed seven (7) pages. The consultant shall clearly identify a primary contact for their proposal and clearly provide that person’s phone number and email address.
c. List of references who may be contacted about the consultant’s qualifications and work experience, not to exceed one (1) page.
d. Curriculum vitae or resumes for project team members, not to exceed two (2) pages per team member; and not to exceed a total page limit of fifteen (15) pages for the entire project team.
e. Timeline to complete individual tasks outlined in the RFP.
f. Cost for each individual task outlined in the RFP.

5.2 The selection team will evaluate the proposals based on the following criteria:

a. experience performing dam removal feasibility and impact studies,
b. experience with dam removals,
c. knowledge of riverine and geomorphic processes,
d. knowledge of riverine ecological systems,
e. clarity and presentation of proposal,
f. knowledge of the local, state and federal permits and authorizations required for the project
i. demonstration of successful cooperation with state and federal agencies, project stakeholders, the public, and
j. demonstration of implementing creative solutions to complex river issues.

5.3 The selection team will review all proposals and rank them according to the criteria outlined in section 5.2 above. The selection team will determine the top finalists based upon a review and ranking process. After the ranking is complete, the first ranked consultant will be recommended to the Miami SWCD, and the Miami SWCD will proceed with contract negotiations with that firm. If negotiations are unsuccessful, Miami SWCD will contact the second ranked consultant and proceed with contract negotiations with that firm, and so on. The Miami SWCD will abide by all Miami County procurement procedures, which will be included with this RFP.
6.0 Pre-Proposal Site Visit

A pre-proposal site visit can be arranged by contacting Donnie Knight of the US Fish and Wildlife Service Partners for Fish and Wildlife Program by email, Donald_knight@fws.gov or phone (614) 747-0256.

7.0 Questions and Due Date

Questions concerning this RFP can also be directed to Donnie Knight of the US Fish and Wildlife Service Partners for Fish and Wildlife Program by email, Donald_knight@fws.gov or phone (614) 747-0256.

All proposals must be titled “Great Miami River Dam Removal Feasibility Study” and received by 4:00 p.m. on Tuesday, February 27, 2018 at:

Miami SWCD
1330 N CR 25A; Ste C
Troy, Ohio 45373

Any proposals received after this specified time will not be considered.

Final selection is anticipated in March 2018.
Appendices
Appendix A
Locations of the three dams of interest and the Treasure Island Pool

Great Miami River Feasibility Study
Locations of the three dams to assess feasibility of removal/modification and Treasure Island
Appendix B
Imagery showing Piqua sheet pile dam
Appendix C
Imagery showing steel gate dam in Piqua
Appendix D
Imagery showing low dam in Troy
Appendix E
Imagery showing Treasure Island backwater in City of Troy