

DEPARTMENT OF THE ARMY
FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

8 January 2018

REQUEST FOR STATEMENTS OF INTEREST
NUMBER **W9126G-18-2-SOI-0001**
PROJECT TO BE INITIATED IN 2018

Project Title: Freshwater Mussel Survey for five of the Seven Lakes within the Trinity Regional Project as part of the Dewatering Actions, North Texas.

Responses to this Request for Statements of Interest will be used to identify potential investigators for a project to be funded by the US Army Corps of Engineers at Trinity Regional Project in order to determine the presence/absence and subsequent relocation of freshwater mussels in the footprint of the stilling basins and potential coffer dam location at five of our lakes: Bardwell Lake, Grapevine Lake, Joe Pool Lake, Lewisville Lake, and Ray Roberts Lake to be located directly downstream of the Outlet Works in order to facilitate the dewatering of these stilling basins for inspection and repairs. Approximately **\$125,000** is expected to be available to support this project.

Background:

The US Army Corps of Engineers (USACE) is dewatering the stilling basin below the Outlet Works at five of the Trinity Regional Lakes for the purpose of inspecting and also repairing any damage found during the inspections. This project will involve the placement of potential coffer dams. Prior to placement of the coffer dam a survey and relocation of freshwater mussel species must be conducted in the footprint of the stilling basin and coffer dam areas. It has been approximately 5 to 10 years since each of these stilling basins have been dewatered and inspected. The areas to be dewatered range from approximately 10,587(Bardwell) square feet to 35,645(Ray Roberts) square feet with the other three lakes falling within this range, see Figure 1 - 5. The area of the river/stream that is below the winged walls downstream to the natural channel where it is restricted. The potential coffer dam footprints range from approximately 600 square feet at Bardwell to over 2,200 square feet at Ray Roberts, located where natural channel starts. Attached are maps showing an aerial view of the outlet works area with the location of the stilling basins and proposed coffer dams.

Type of Award:

The government anticipates it will provide substantial involvement through the life of the project. The exact nature of the government's involvement will be defined in the statement of work, issued with a request for full proposal, after review of the statements of interest. As a result, it is anticipated that a cooperative agreement will be awarded.

Brief Description of Anticipated Work:

TASK 1: RECONNAISSANCE SURVEYS

A reconnaissance survey will be performed in the lower portions for each of the stilling basins that are not concrete-lined, downstream of the winged walls, to determine whether presence/absence surveys are needed. During the reconnaissance survey, field personnel will evaluate whether suitable mussel habitat is present within the right-of-way (50 m up and downstream) of the potential coffer dam location. The placement of the potential coffer dams are located relatively where the natural channel of the river/stream begins again. Exposed shoreline in this area will be downstream of the cofferdam locations and this is the area where the reconnaissance surveys will concentrate. If suitable habitat is present, surveyors will opportunistically search for live mussels in those habitats and stream banks will be examined for shell material. The reconnaissance effort is not meant to be an exhaustive survey but rather a means to evaluate the likelihood of mussels occurring within the earthen-bottomed portion of the stilling basins.

TASK 2: PRESENCE/ABSENCE MUSSEL SURVEY WITHIN THE STILLING BASIN

A semi-quantitative sampling design should be used to search for state threatened mussel species within this area. Before dewatering, the potential coffer dam footprint will be surveyed with a method that entails surveying tactilely searching for mussels along submerged transects within the coffer dam footprint. Approximately 50% of the natural substrate area will be dewatered completely, mainly all along the steep sloped shoreline bank as water recedes while pumping, see Figures for each lake. This is the impacted area for mussels and will be surveyed. Mussel biologists will survey the dewatered areas with transects running parallel to shoreline at two to three foot intervals as the water recedes and exposes the bank. Mussel species will be removed from the surveyed areas by conducting multiple-pass-depletion surveys. Specifically, along each transect. Surveyors will then perform timed-searches in each. Two passes will be made for each transect and subsequent passes will be performed until < 30% abundance of the previous pass is collected or until one or no mussels are collected. Captured mussels will be placed in mesh bags while surveying and located temporarily in the water downstream of the potential coffer dams. The remaining 50% of the area will be underwater; approximately 2 to 3 feet of water will remain in this area, see Figures 1 - 5. The watered area will not be surveyed because minimal impacts will occur to those mussels still covered with that depth of water. Abundance data from this survey effort is then used to guide timed searches in areas with high mussel diversity to increase the probability of detecting state or federally listed mussel species.

TASK 3: RELOCATION OF MUSSELS FROM THE COFFER DAM FOOTPRINT

After removing mussels from the dewatered area using multiple pass depletion surveys, mussel species collected will be relocated to a downstream site (except Bardwell Lake where mussels will be relocated to the lake itself or in Waxahachie Creek with habitat similar to the source location. Following collection, mussels in mesh bags will be transported in coolers to the relocation sites. Upon arrival at the relocation sites, mussels will be immediately placed into the

water in habitat that is similar to the source location. The goal of this mussel survey is to meet the requirements of the Texas Parks and Wildlife Department (TPWD) concerning the protection and relocation of freshwater mussel species during the placement of the earthen coffer dam and the dewatering of the stilling basin at these five lakes. Relocated mussels will not be monitored for any period of time because this conservation activity is not required by TPWD.

Period of Performance. The dewater project is expected to start in late May 2018 and continue through the summer at each location, thus the mussel survey will need to be completed beforehand or while water is receding to facilitate the placement of the potential coffer dam prior to the initiation of the dewatering process for each stilling basin.

Materials Requested for Statement of Interest/Qualifications:

Please provide the following via e-mail attachment to: alisa.marshall@usace.army.mil
(Maximum length: 2 pages, single-spaced 12 pt. font).

1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
 - a. Biographical Sketch,
 - b. Relevant past projects and clients with brief descriptions of these projects,
 - c. Staff, faculty or students available to work on this project and their areas of expertise,
 - d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

Note: A full study proposal and proposed budget are NOT requested at this time.

Review of Statements Received: All statements of interest received will be evaluated by a board comprised of one or more people at the receiving installation or activity, who will determine which statement or statements best meet the program objectives. Based on a review of the Statements of Interest received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the investigator's specific experience and capabilities in areas related to the study requirements.

Please send responses or direct questions to:

USACE, Fort Worth District
Mrs. Ali Marshall, Grant Specialist
CESWF-CT
Email: Alisa.Marshall@usace.army.mil
Office: 817-886-1068

Timeline for Review of Statements of Interest: The RSOI are required to be out for a minimum of 10 working days. Review of Statements of Interest will begin **January 23, 2018**.

Figure 1. Bardwell Lake Stilling Basin



Figure 2. Grapevine Lake Stilling Basin

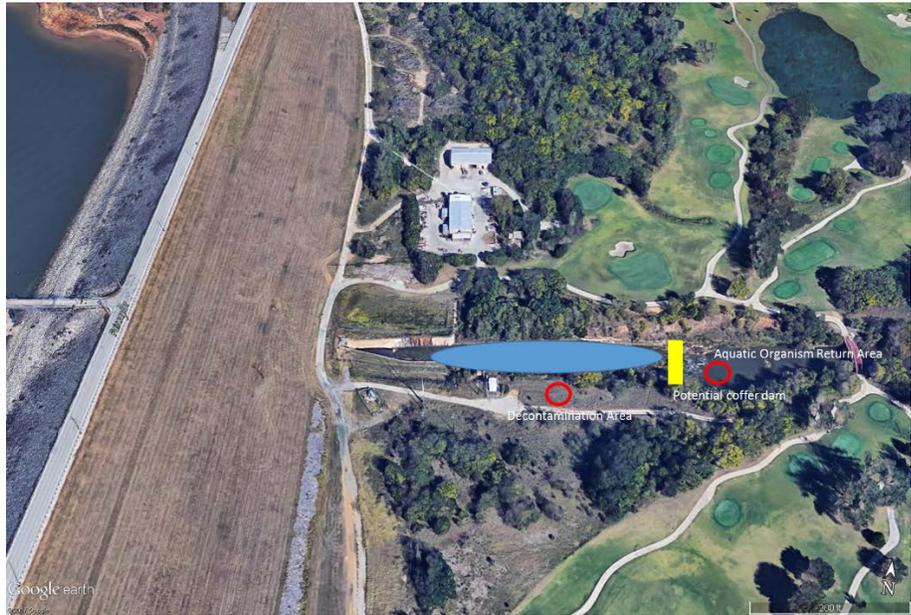


Figure 3. Joe Pool Lake Stilling Basin

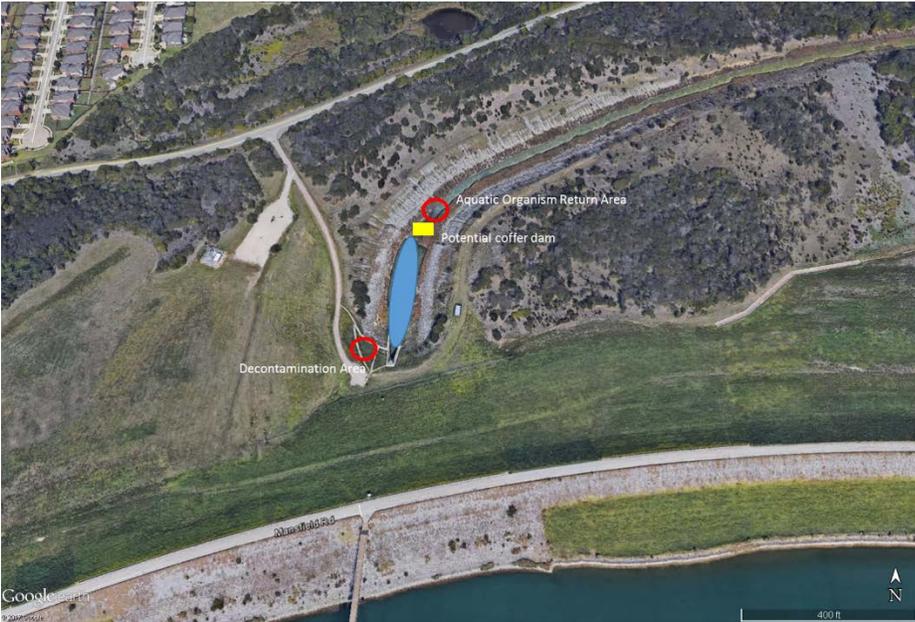


Figure 4. Lewisville Lake Stilling Basin



Figure 5. Ray Roberts Stilling Basin



[End of RSOI]