NORTH TEXAS MUNICIPAL WATER DISTRICT
DECEMBER 2014

ADMINISTRATIVE MEMORANDUM NO. 4328-A

REGIONAL WATER SYSTEM
LOWER BOIS D'ARC CREEK RESERVOIR
MITIGATION PROPERTY
PRELIMINARY ENGINEERING
PROJECT NO. 366

ADDITIONAL ENGINEERING SERVICES

RECOMMENDATION

It is the recommendation of the Executive Director and NTMWD staff that the Board of Directors authorize an increase to the engineering services agreement with Freese and Nichols, Inc. (FNI) for the Lower Bois d’Arc Creek Reservoir Mitigation Property Preliminary Engineering, Project No. 366, in the not-to-exceed amount of $80,681 resulting in a revised not-to-exceed engineering services agreement of $1,590,881.

BACKGROUND

The purpose of this project is to compensate for the loss of wetlands and terrestrial habitat due to the construction of the dam, spillway, reservoir, raw water intake, pump station and pipeline, and terminal storage reservoir, as well as the impoundment of water behind the dam. Work on the mitigation plan for the Riverby Ranch has progressed to the point where preliminary engineering can commence. Preliminary engineering for the mitigation plan was authorized by Administrative Memorandum No. 4257 in September 2014. As the field work associated with the preliminary design began, prehistoric human remains were immediately encountered. As described below, this dramatically impacts the field work approach and level of care and monitoring required.

Part of the permitting process for the reservoir is a cultural resources investigation of the lake footprint and the mitigation property. The investigation documents known historical sites and selected high probability areas where cultural resources may exist. An archeologist with a permit from Texas Historical Commission (THC) is required to conduct these investigations. During the initial phase of this investigation on Riverby Ranch, prehistoric remains were discovered, which has caused the U.S. Army Corps of Engineers (USACE) to require NTMWD to develop a plan that shows the location of the geotechnical borings and other preliminary engineering activities, such as soil fertility shovel tests, in relation to known archeological sites. Borings or soil fertility shovel tests that are within 100 meters of a cultural resource require an archeologist to be on-site during the work. The archeologist also must obtain a permit from the THC to work in the vicinity of known cultural or archeological resources. FNI requested a fee proposal
from AR Consultants (ARC) for the services of an archeologist to meet these requirements. In consideration of the urgency of this project, ARC developed a plan showing the boring locations, soil fertility tests, and known cultural resources. This plan has been submitted to USACE, THC, and the Caddo Nation for approval. All three agencies have concurred with the plan submitted by ARC, and the geotechnical and soil fertility investigations can now move forward.

SCOPE OF ADDITIONAL ENGINEERING SERVICES

Additional services required include the following major tasks:

- Coordinate with USACE, THC, and Caddo Nation throughout the geotechnical and soil investigation process
- Prepare a soil sampling plan that discusses the proposed sampling locations and methods for the geotechnical borings, soil fertility samples, streambed and stream bank samples, and wetland seedbank samples
- Coordinate the soil sampling plan with previously known archeological sites and avoidance areas
- Conduct field monitoring by an archeologist of geotechnical borings and soil investigations
- Collect and analyze any artifacts found by ARC lab
- Prepare records for curation at an approved facility
- Prepare a letter report describing the results of the archeological monitoring
- Submit letter report to USACE, THC, and Caddo Nation for review and comment
- Incorporate the letter report into the archaeological survey of Riverby Ranch

FNI has submitted a cost proposal of $80,681 for the additional services required, resulting in a revised total fee of $1,590,881. NTMWD staff has reviewed the scope and fee proposed for this additional work and recommends them as both necessary and representative of the effort required.

FUNDING

Funding in the amount of $80,681 is available in the Regional Water System 2014 Construction Fund.