

MEMORANDUM

TO: Claire Powell, City Manager

FROM: Stacie Anaya, Director of Parks and Recreation

DATE: June 4, 2024

SUBJECT: Approval of a Professional Services Agreement Between the City of Lewisville and Halff Associates, Inc. for Professional Engineering and Consulting Services for the Design for Lake Park Shoreline Erosion Phase I; in the Amount of \$575,300; and Authorization for the City Manager, or Her Designee, to Execute the Agreement

BACKGROUND

Lake Park has approximately 385 acres consisting of a golf course, athletic fields, boardwalk/fishing pier, day use picnic areas, walking trails/disc golf area, RV campgrounds and overnight campgrounds. Lake Park is adjacent to the Lewisville Lake Development area that holds a Marina, boat sale and service facility, restaurant and a DCTA station. It is also adjacent to our Lewisville Lake Environmental Learning Area (LLELA), a nature preserve that has a rich history, both within the community and ecologically. It is the center for ecological research and education in the City of Lewisville. These three areas and the Trinity River corridor are the Green Center Piece recognized in Lewisville's Vision 2025 plan.

Lake Park is located on the shores of Lewisville Lake, which is managed and operated by the United States Army Corps of Engineers (USACE). The primary focus of the USACE is Flood Damage Reduction, Water Supply, Natural Resource Preservation and Recreation. During past and recent reoccurring rain and flood events, Lewisville Lake Park has experienced frequent inundation of their Day Use areas, internal park roads and trails, boat ramps and swim beaches. This has rendered most of the park inaccessible and inoperable for periods of 2 to 3 months at a time during these events.

In 2020, the City executed a Professional Services Agreement with Halff Associates to assist with the development of a Master Plan for Lake Park. While surveying Lake Park, Halff identified several areas with extensive erosion along approximately 2 miles of shoreline. Erosion in two areas was deemed severe enough to threaten physical assets such as trails and a pavilion that a professional services agreement for design of emergency shoreline repairs was executed in August 2023 before completion of the master plan. The plans for the temporary emergency repairs are currently being evaluated for approval by the USACE. Long term repairs will be designed once the Lake Park Master Plan has been approved.

Shortly after the execution of the PSA for emergency shoreline repairs, staff closed water access at the northeastern edge of Lake Park as the water table of Lewisville Lake dropped, visitors failed to adhere to warning signs and emergency calls increased. This closure remains in place and led to a modification in concepts for the area within the master plan to permanent erosion riprap and

elevated fishing piers/boardwalk rather than restoration of a swim beach.

Over the most recent winter, erosion near the Walleye Picnic Area in Lake Park accelerated at an unexpected rate (caused by northern winds and waves) resulting in the loss of several feet of shoreline and large Post Oaks and rendering the area unsafe. After an inspection of the area in March, staff closed the Walleye Picnic area to visitors.

ANALYSIS

In order to mitigate the rapid loss of shoreline and address safety issues in these two areas, staff approached Halff about designing additional, more permanent shoreline repairs for this area to be considered for approval by the USACE prior to its approval of the new master plan. The PSA being considered includes the analysis, design and construction procurement and assistance for approximately 3,400 linear feet of shoreline protection near Walleye Picnic Area, the former swim beach and immediately adjacent to Boat Ramp #2, as well as modification of the boat ramp and courtesy dock to accommodate the changes to the shoreline.

Halff anticipates the design of the improvements will take approximately 44 weeks and construction approximately 44 weeks. Anticipated completion of the project is in the Summer of 2027. Funding is available from the Capital Improvements Project for Lake Park Improvements.

CITY STAFF'S RECOMMENDATION

That the City Council approve the agreement and authorize the City Manager, or her designee, to execute the agreement as set forth in the caption above.