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October 12, 2025

Jose Luis Centeno,
Utilities System Supervisor
City of Laredo – Utilities Department
5816 Daugherty Avenue,
Laredo, Texas 78041

Re: Environmental & Archaeological Consulting Services for the Northwest River Sewer Collector Project – City of Laredo / RFQ No. FY25-077

Dear Jose Luis Centeno:

SWCA Environmental Consultants (SWCA) is pleased to assist the City of Laredo (City) by providing natural and cultural resources field surveys, reporting, and permit support services for RFQ No. FY25-077 Sewer Line Installations for Utility Department Projects. The scope and cost described herein are based on the proposed alignment provided to SWCA on October 2nd, 2025.

We are prepared to begin work upon receipt of a signed contract. For your convenience, an email copy of the signed contract will be accepted as notice to proceed. If you have any questions or need additional information, please do not hesitate to contact me at (210) 361-0297 or cwesterman@swca.com.

Sincerely,

A handwritten signature in blue ink that reads "Christine A. Westerman". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Christine A. Westerman
Principal Project Manager

SCOPE OF WORK

SWCA understands that the City of Laredo intends to construct a large gravity sewer collector along the banks of the Rio Grande that will allow the bypass and decommissioning of many lift stations for more efficient system expansion. The approximately 2.4-mile-long collector will empty into a proposed regional lift station that discharges directly to the Manadas Wastewater Treatment Plant. Information on this project was provided to SWCA in the Northwest River Sewer Collector Study dated March 2025, and alignment of October 2, 2025.

TASK 1: AQUATIC RESOURCES DELINEATION FOR WETLANDS, SPECIAL AQUATIC SITES AND OTHER WATERS

SWCA will review published information and perform a wetland delineation of the project alignment to identify wetlands, ponds, stream channels, and other aquatic features that may be considered jurisdictional waters by the U.S. Army Corps of Engineers (USACE) under the Clean Water Act. Data collection will be conducted in accordance with current federal delineation methodology including the *1987 Corps of Engineers Wetland Delineation Manual* and the *2010 Regional Supplement for the Great Plains Region*. Data will be collected on vegetation, soils, and hydrology (described below) to determine if the areas in the project area meet criteria for wetlands established by the USACE:

Vegetation identification and analysis will be performed for each vegetation stratum (herbs, sapling/shrub, trees, and vines). Hydrophytic vegetation will be considered present if greater than 50 percent of the dominant vegetation is composed of obligate wetland (OBL), facultative wetland (FACW), or facultative (FAC) species. Soil analysis for each sample plot will be determined using the guidelines set forth by the National Technical Committee for Hydric Soils (USDA Soil Conservation Service, 1987). The soil will be inspected for positive indications of hydric soils. The sample pit will be left open for a sufficient time to allow for the stabilization of the apparent high-water table, if present. SWCA biologists will determine if positive indications of wetland hydrology, as defined in the 1987 Wetland Manual, are present. Typical hydrological indicators include inundation, saturation, ordinary high water mark, drainage patterns, oxidized root channels, drift lines, and sediment deposits.

SWCA will collect a minimum of one sample point for each vegetation community (additional points may be required along wetland/non-wetland boundaries) and complete the USACE Wetland Determination Data Form for each sample point. All potential jurisdictional waters of the United States, including wetlands, will be mapped, and identified. SWCA will prepare a Wetlands, Special Aquatic Sites and Other Waters Report based on data obtained from the aquatic resources delineation. The report will include the following information:

- A narrative description of the methods utilized in conducting the field investigations.
- A results section that describes (1) the vegetation communities observed, (2) the soils observed, (3) the types of wetlands encountered and (4) the water bodies observed.
- A table detailing the total length and area of all wetlands, special aquatic sites and other waters observed within the project area.
- USACE Antecedent Precipitation Calculations used to determine climate conditions as “normal,” “wetter than normal” or “drier than normal” during the delineation.
- Maps illustrating locations of all jurisdictional waters in the project area. The maps would be aerial photo-based and prepared using ArcGIS.
- U.S. Army Corps of Engineers Wetland Determination Data Forms for each sample point.
- Photographic logs for each sample point.

The Wetlands, Special Aquatic Sites and Other Waters Report will be delivered within 14 business days after the wetland delineation is complete, unless otherwise specified by the client.

TASK 1 ASSUMPTIONS

- Field survey issues beyond SWCA's control, such as access restrictions, inclement weather, or unsafe project conditions that result in delays to the project schedule or require additional mobilizations, may require a Change Order.
- The cost estimate does not include a site visit with USACE staff.

TASK 2: THREATENED AND ENDANGERED SPECIES HABITAT EVALUATION

The U.S. Fish and Wildlife Service (USFWS) considers 8 federally listed threatened and endangered species as having the potential to occur or be affected by activities in the project vicinity in Webb County. These species include three birds: cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), piping plover (*Charadrius melodus*), and rufa red knot (*Calidris canutus rufa*); three freshwater mussels: Mexican fawnsfoot (*Truncilla cognata*), Salina mucket (*Potamilus metnecktayi*) and Texas hornshell (*Popenaias popeii*); one insect: monarch butterfly (*Danaus plexippus*); and one plant: ashy dogweed (*Thymophylla tephroleuca*). In addition to federally listed species, Texas Parks and Wildlife Department (TPWD) lists numerous endangered and threatened species and species of greatest conservation need (SGCN).

SWCA will conduct an evaluation of the potential for the occurrence of federally and state-listed and SGCN species in the project area. This evaluation will require a site visit to evaluate the structural and compositional elements of the vegetation and other habitat features to determine if potentially suitable habitat for the above-mentioned species occurs on within or near the project location.

Following the field visit, SWCA will prepare the draft report for client review and comments, summarizing our assessment of the potential for occurrence of the species listed above within the project area. SWCA will incorporate responses to client comments and prepare the final report. All reports will be submitted in electronic (PDF) format.

TASK 2 ASSUMPTIONS

- Field survey issues beyond SWCA's control, such as access restrictions, inclement weather, or unsafe project conditions that result in delays to the project schedule or require additional mobilizations, may require a Change Order.
- This task does not include species-specific presence/absence surveys. The requirement to perform presence/absence surveys will depend on the outcome of Task 2 field studies.

TASK 3: USACE PRECONSTRUCTION NOTIFICATION AND PERMITTING SUPPORT (IF REQUIRED)

Section 404 of the Clean Water Act requires a USACE permit for placement of fill in jurisdictional streams and wetlands. USACE considers trenching and grading as placement of fill. Water pipeline projects are authorized under Nationwide Permit 58 for Utility Lines for Water and Other Substances. USACE permitting will be required if the project will affect jurisdictional wetlands or water bodies.

SWCA recommends a USACE pre-application meeting at initiation of this project. SWCA will provide meeting support and, if requested by the client, submit a USACE pre-application meeting request. The

purpose of the meeting will be to familiarize USACE with the proposed project, project timeline, natural and cultural resources background, and address any agency questions.

Following completion of the aquatic resources delineation, SWCA will prepare a USACE Nationwide Permit (NWP) application form and applicable attachments as required for proposed activities affecting streams/wetlands. Permit application components include the following:

- NWP application form
- List of property owners;
- Delineation of waters of the U.S., including wetlands
- Color photographs of the project site
- Summary table of waters of the U.S. impacted by the proposed project
- Required drawings/figures
- Threatened and endangered species impacts assessment and Biological Assessment
- Cultural resources report.

The draft application form and attachments will be provided to the client for review. Upon incorporation of revisions or other changes resulting from the review comments, SWCA will provide the final permitting package to the client. If requested by the client, SWCA will submit the package directly to the USACE.

If the USACE requests clarifications and/or alterations, SWCA will accommodate the requests and provide revised copies suitable for the USACE, excepting those requests that are beyond SWCA's authorized scope of services. The proposed cost is based on responding to two rounds of USACE comments.

ASSUMPTIONS FOR TASK 3

- Cost estimate is based on NWP permit support. An Individual Permit is not anticipated to be required; however, if required, would result in the need for additional services not included in this scope.
- The scope and cost do not include travel for a USACE meeting or site visit. The cost includes a pre-application virtual meeting/phone conference.

TASK 4: CULTURAL RESOURCES

The proposed project includes construction and installation of the Northwest River Sewer Collector Project. Portions of the project are assumed to be located on land managed by the IBWC, a federal government agency; therefore, the project triggers Section 106 of the NHPA and would require an ARPA permit, prior to archaeological field investigations on land managed by the IBWC. Additionally, as the entire project alignment will be under the ultimate control of the City, which is considered a subdivision of the State of Texas, an Antiquities Permit will be required under the ACT, which is administered by the THC, prior to any archaeological field investigations.

Scope of Work and Antiquities Permit

An SWCA archaeologist will perform a review of records from the Texas Archaeological Research Laboratory available on the THC's online Texas Archeological Sites Atlas (Atlas) to identify previously recorded surveys or cultural resources within 1-mile of the project area. An archaeologist will also review historical maps, aerial photographs, topographic maps, soil survey maps, and geologic maps to identify possible historic-age structures or the previous locations of structures that may now be expressed as an archaeological site within the APE of the project. Following completion of the background review, SWCA's Principal Investigator will prepare a scope of work and submit it to the City for their review. Upon receipt and incorporation of comments, SWCA will then submit the scope of work and the Antiquities Permit

application to the THC and USACE for their review; a similar scope of work will also be submitted concurrently to the IBWC for issuance of an ARPA permit. In general, the THC, USACE, and IBWC will review the scopes of work and issue the permits within 30 to 45 days of receipt of the application.

Shovel Testing and Mechanical Backhoe Excavations

SWCA will conduct a cultural resources survey of the entire approximately 2.4-mile-long Northwest River Sewer Collector Project alignment. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. During the survey, the archaeologist will be examining the ground surface and erosional profiles for cultural resources within a 100-foot-wide survey corridor centered on the proposed pipeline route. Subsurface investigations will involve shovel testing in settings with the potential to contain buried cultural materials and dependent upon variables such as previous disturbances and the presence of soils. For linear surveys, the Council of Texas Archeologists (CTA) requires one transect of shovel tests every 100 feet of width, and one shovel test per 328 feet along the single transect. Based on an assumed 100-foot-wide corridor, SWCA anticipates no more than **20 shovel tests** will be required to adequately investigate the potential for shallowly buried cultural resources within the project area. Shovel tests will be approximately 30 centimeters (cm) in diameter and excavated in arbitrary 20-cm levels to 80 cm below surface or culturally sterile deposits, whichever comes first. The location of each shovel test will be plotted and information recorded using a tablet equipped with a submeter-accurate global positioning system (GPS) receiver.

If archaeological sites are encountered in the project area during the fieldwork, they will be explored as much as possible with consideration to the boundaries of the project. Shovel tests will be excavated per THC/CTA standards to define horizontal and vertical site boundaries (i.e., at least six shovel tests per site). Locations of sites, relevant features, and photograph locations will be mapped through GPS. SWCA will complete appropriate State of Texas Archaeological Site Data Forms for each site discovered and/or revisited during the fieldwork.

Based on the proximity of the City to the Rio Grande, SWCA anticipates that portions of the project area have the potential for deeply buried archaeological sites. The primary method for quickly and efficiently exploring those areas will be with mechanical excavation (i.e., backhoe trenching). Trench placement will be determined by the level of existing disturbance, the location of any impacted areas, and the preservation potential for archaeological sites as determined by SWCA geoarchaeologist, Analise Hollingshead, and subsequent consultation with the agencies.

All mechanical trenching will be monitored by an experienced archaeologist while excavations are underway, and all work will be performed in accordance with Occupational Safety and Health Administrations (OSHA) regulations (29 CFR Part 1926) and overseen by an OSHA competent archaeologist. If necessary to assess the potential for buried deposits deeper than 5 feet below surface, the excavations will be benched back in accordance with regards to the appropriate soil type, as indicated in OSHA regulations (29 CFR Part 1926.652[b][2]). In the event that a backhoe trench contains cultural materials, these items will be documented and (if possible) photographed *in situ* during the profile recording. If the cultural materials in the backhoe trench is identified to be within intact deposits, or found in association with a cultural feature (hearth), then additional trenches might be excavated. Depending on the nature of the project and the limits of access, the additional trenches typically will be placed on opposite ends of the trench to determine the horizontal extent of the cultural materials. All features encountered during trenching will be mapped and photographed. Upon completion of excavation, all trenches will be backfilled, leveled, and returned, as much as possible, to their original state. Based on

preliminary review, SWCA anticipates no more than **20 trenches** will be required to adequately explore the potential for deeply buried archaeological sites for the project area.

All recorded sites will be mapped in detail with a GPS unit and plotted on U.S. Geological Survey 7.5-minute topographic maps and appropriate project maps for planning purposes. SWCA will propose a non-collection survey. Artifacts will be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts will be described in detail and photographed in the field, then reburied. This policy will minimize curation costs once the fieldwork is concluded. If the THC, USACE, and/or IBWC disagree with the proposed non-collection survey methods, this will be resolved prior to issuance of the permits and performance of the survey.

Built Environment Survey

It is SWCA's understanding that the ultimate design of the project is expected to be entirely subsurface. As such, SWCA recommends no survey or review of the built environment within the APE (i.e., viewshed) of the project, as the construction impacts will be temporary in nature and the ground surface will be returned to pre-construction levels. However, if a reviewing agency requires a review of aboveground historic resources within the indirect APE, the following procedures will be implemented. A Secretary of the Interior (SOI)-Qualified Architectural Historian meeting the Professional Qualification Standards (36 CFR Part 61) will conduct the viewshed analysis and survey within the indirect APE. The SOI-Qualified Architectural Historian will evaluate historic-age resources built in or before 1981 (45 years from the project let-date of 2026) for eligibility to the NRHP. If a property is listed in or eligible for the NRHP, SWCA will also complete an effects analysis. This information will determine indirect, direct, and cumulative effects for NRHP-listed and eligible resources. The appendices will contain a tabular inventory of surveyed properties, survey forms for all surveyed properties, map figures, and project area photographs. Figures will include the project location, intersected parcels, survey results, and NRHP recommendations (if applicable).

Reporting And Curation

SWCA will prepare a single draft report of the archaeological investigations following completion of the above field surveys (both archaeology and built environment) for both the ACT and ARPA permits. The report will document the general nature of the project area, the methodology used in the investigations, the presence and condition of any previously recorded sites revealed in the records review, the general nature and extent of cultural resources encountered during the archaeological and architectural history surveys, recommendations on the need for further work, and the potential significance of the cultural resources for NRHP and SAL eligibility.

SWCA will submit a draft copy of the report to the City for review and comment. Once this has been accomplished, SWCA will incorporate the edits and submit a revised draft report to the THC, USACE, and IBWC for their review and comment; these agencies have between 30 and 45 days to complete their reviews and provide commentary. Once the draft report has been reviewed and accepted, the report will be finalized and submitted to all agencies. Field records and photographs will be curated at an approved curatorial facility; this curation process could take up to eight (8) weeks to complete once concurrence has been received from the agencies.

ASSUMPTIONS FOR TASK 4

- It is SWCA's understanding that the project requires review and compliance under the Antiquities Code of Texas and USIBWC at this time.
- The cost estimate is based upon complete and unfettered access to the survey area. All land acquisition or right-of-entry to the property will be obtained prior to field investigations commencing. Factors beyond SWCA's control, such as access restrictions, inclement weather, or unsafe project conditions that result in delays to the project schedule or require additional mobilizations, may require a Change Order.
- SWCA assumes that one crew of two (2) archaeologists can complete the archaeological trenching in five (5); this does not include travel days.
- SWCA also assumes that one crew of two (2) archaeologists can complete the archaeological pedestrian surveys in two (2) business days; this does not include travel days.
- SWCA also assumes one (1) architectural historian can complete their survey tasks in two (2) business days; this does not include travel days.
- SWCA assumes that up to two cultural resources will be recovered. If additional cultural resources are identified within the in-scope segments of the project, SWCA will submit an additional cost estimate to delineate those resources.
- The cost does not include project-related safety training or expenses (e.g., OSHA, HAZWOPER, company, or site-specific safety training).
- Detailed archival research and review of county records to determine the age and significance of historic-age resources in the project area are not included in this cost or proposal.
- SWCA proposes a non-collection survey.
- This scope of work does not include eligibility testing or data recovery levels of effort.

TASK 5: INTERNATIONAL BOUNDARY AND WATER COMMISSION PERMIT APPLICATION PACKAGE

SWCA will provide coordination and submittal package to the International Boundary and Water Commission (IBWC) to support approval of project activities occurring within IBWC's geographic area of jurisdiction. The package will include project description, project plan and profile exhibits (to be provided by the client), and documentation of regulatory compliance/coordination with other natural resources agencies.

The draft application package and attachments will be provided to the client for review. Upon incorporation of revisions or other changes resulting from the review comments, SWCA will provide the final permitting package to the client. If requested by the client, SWCA will submit the package directly to the IBWC.

If the IBWC requests clarifications and/or alterations, SWCA will accommodate the requests and provide revised copies, excepting those requests that are beyond SWCA's authorized scope of services. The proposed cost is based on responding to two rounds of IBWC comments.

PROPOSED BUDGET

Based on thoughtful consideration of the project requirements and a thorough estimate of the required labor and direct costs, SWCA proposes a time-and-materials budget of **\$140,540** to complete the project as presented in the table below. Rates are subject to a [3%] increase no more than once every 12 months should the project extend beyond February 2026. This cost estimate is valid for [ninety (90) days] from the date of the proposal.

Table 1. Cost Estimate

TASK AND DESCRIPTION	TIME AND MATERIALS NOT TO EXCEED TOTAL \$
Task 1. Aquatic Resources Delineation	\$11,845
Task 2. Habitat Evaluation	\$12,060
Task 3. USACE PCN and Permitting Support (if required)	\$19,125
Task 4. Cultural Resources*	\$92,710
Task 5. IBWC Permit Application Package	\$4,800
PROJECT TOTAL	\$140,540

* This includes approximately \$18,000 for a backhoe subcontractor to conduct the mechanical deep testing (trenching) effort.



Standard Rate Schedule

2025 LABOR CATEGORIES AND BILLING RATES

Professional Consulting Services

Cultural Resources
Environmental Resources
Paleontology
Scientific Resources
Planning Resources
Engineering and Special Services

Graphics/Media Production
GIS/CADD Resources
Technical Writing/Editing
Air Quality
Training/Facilitating

Subject Matter Expert IV.....	\$293.00	Specialist VIII.....	\$158.00
Subject Matter Expert III.....	\$268.00	Specialist VII.....	\$147.00
Subject Matter Expert II.....	\$242.00	Specialist VI.....	\$137.00
Subject Matter Expert I.....	\$230.00	Specialist V.....	\$123.00
Specialist XII.....	\$226.00	Specialist IV.....	\$114.00
Specialist XI.....	\$207.00	Specialist III.....	\$104.00
Specialist X.....	\$189.00	Specialist II.....	\$91.00
Specialist IX.....	\$169.00	Specialist I.....	\$77.00

Direct expenses are subject to a 15% administrative markup and subcontractor expenses are subject to a 20% administrative markup. These rates do not apply to depositions or testimonies at administrative hearings and trials. Such activities fall under our Expert Witness rates, which vary by state.

A communication/data fee is invoiced at a rate of 3% of labor to cover such expenses.

Overtime is invoiced at 1.2 times standard rates.

Per Diem is billed at the then-current GSA rate at time of billing.

Mileage is billed at the then-current IRS mileage rate at time of billing.