

**DATA SHEET**  
**Agenda Item No. 15.B.**

**Meeting Date: April 5, 2018**

**Agenda Item:**

Consider approval of agreements for professional services for Lake Ralph Hall:

- B. Contract and Task Order No. 1 with Alan Plummer Associates, Inc. related to design of proposed Mitigation for Lake Ralph Hall.

<b>Placement:</b> <input type="checkbox"/> Consent <input checked="" type="checkbox"/> Individual Consideration <input type="checkbox"/> Executive Session
<b>Vote:</b> <input type="checkbox"/> Non-Weighted <input checked="" type="checkbox"/> Weighted Capital
<b>Recommending Department:</b> <b>Engineering &amp; Construction</b>

**Background:**

In order to receive a U.S. Army Corps of Engineers (USACE) Section 404 (construction) permit for the Lake Ralph Hall (LRH) project, impacts to aquatic resources and terrestrial habitats must be mitigated. On February 5, 2018 the District submitted to USACE a Plan developed by Alan Plummer Associates, Inc. (APAI), which describes the proposed mitigation concepts for the LRH project. USACE then distributed the Plan to the coordinating resource agencies (Texas Parks & Wildlife, Environmental Protection Agency, U.S. Fish & Wildlife, U.S. Forest Service and Texas Historical Commission) for review.

USACE reported that based upon these reviews additional environmental field work, stream data collection and more defined design concepts will be required. The additional work is needed to further develop and refine the District's proposed Mitigation Plan in order to fully respond to questions and comments from the coordinating resource agencies.

In order to develop the required information, staff has negotiated a proposed Contract and Task Order No. 1 with APAI. Task Order No. 1 provides for these project elements:

- Continued support for development of the Draft Environmental Impact Statement,
- Environmental and geomorphic field work, site investigation and data collection,
- Conduct a Mitigation Design team workshop,
- Prepare Mitigation Design Technical Memorandum,
- Development of Mitigation Design Validation Document,
- USACE and coordinating resource agencies meeting(s)

The cost to perform the work identified in Task Order No. 1 is not to exceed \$939,217.00.

**Financial:**

Funding for the Lake Ralph Hall project is included in the Regional Treated Water System FY 2018 Capital Budget with project number 5RH. This funding was received in December 2015 from the Texas Water Development Board through the SWIFT deferred payment program.

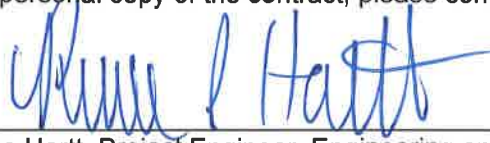
**Recommendation:**

Staff recommends approval of Contract and Task Order No. 1 with Alan Plummer Associates, Inc.

**Enclosures:**

1. Task Order No. 1.
2. The proposed contract is a standard District professional services agreement and is not enclosed. If you would like a personal copy of the contract, please contact Ronna Hartt.

Submitted By: \_\_\_\_\_



Ronna Hartt, Project Engineer, Engineering and Construction

Date: March 30, 2018

## **ATTACHMENT A-1**

### **Task Order No.1**

This Task Order is part of the AGREEMENT between Alan Plummer Associates, Inc. ("APAI" or "ENGINEER"), and Upper Trinity Regional Water District ("OWNER"), for a project generally described as:

#### **MITIGATION PROJECT FOR THE PROPOSED LAKE RALPH HALL**

The purpose of this Task Order is as follows:

1. Support the OWNER by responding to requests, comments and questions from agencies reviewing the Administrative Draft Environmental Impact Statement (DEIS);
2. Support the OWNER by responding to requests, comments and questions from agencies reviewing the proposed Mitigation Plan; provide a preliminary estimate of mitigation potential based on field work; prepare a Mitigation Design Memorandum; and meet with the US Army Corps of Engineers (USACE) and other review agencies.

#### **1.0 PROJECT DESCRIPTION**

The overall purpose of the Lake Ralph Hall (LRH) Mitigation Project is to meet the compensatory requirements that will be set forth in the USACE Section 404 Permit. The LRH Mitigation Project site is located immediately downstream of the proposed LRH Dam. Under the proposed Mitigation Plan (dated February 5, 2018), the anticipated compensatory requirements would be met through a number of restoration and enhancement activities located within the Mitigation Project site, which include the following:

- Creating, restoring, or enhancing approximately 115,300 linear feet (LF) of streams, as follows:
  - Restoring up to 19,200 LF of the former North Sulphur River (NSR) channel;
  - Restoring, creating and enhancing up to 58,000 LF of streams that would convey runoff into the restored former NSR channel;
  - Creating up to 8,800 LF of stream within the existing NSR main channel (Note - the present concept for this includes construction of a large, reinforced concrete grade control structure located just upstream of the confluence of the existing NSR and Baker Creek. The channel of the NSR upstream of the grade control structure would include approximately 10 feet of earthen fill, on which the created stream and adjacent riparian area would be located);
  - Restoring or creating up to 22,400 LF of streams that convey runoff to the NSR main channel; and
  - Enhancing up to 6,900 LF of streams that convey runoff into Baker's Creek;
- Establishing a wooded riparian buffer around the restored, enhanced, and created streams that will include native trees and shrubs (riparian buffer width to extend 200 feet beyond the restored mitigation channels and within an appropriate meander belt width);
- Establishing areas of native prairie grasses within the riparian buffer zone and areas disturbed by construction;
- Performing ancillary work necessary to meet the Mitigation Plan requirements, including:
  - Filling approximately 30,000 LF of degraded streams;

- Incorporating a number of on-channel ponds and removing existing culverts or pipes, interior roads, and cross-fencing that would no longer be needed;
- Planning for future monitoring of the mitigation project and accommodating other OWNER needs;
- Defining and establishing boundary identification of the mitigation area.

Additional mitigation project requirements are detailed in Section 6, Special Conditions of the OWNER'S Texas Commission on Environmental Quality (TCEQ) Water Use Permit No. 5821. These include the following:

- Providing perennial pools within the restored former NSR channel;
- Maintaining water within the perennial pools in the restored former NSR through releases from the reservoir and/or flow from a recirculating pump system as identified in the *Conceptual Design and Analysis of the Proposed North Sulphur Riparian Habitat Mitigation Area for Lake Ralph Hall*;
- Providing flow measurement devices to monitor/record flow associated with the recirculation pump system;
- Installing instrumentation that will monitor water levels and water quality in the perennial pools; and
- Reporting water level/water quality data recorded by the instruments through a SCADA system.
- Providing ingress/egress to monitor instruments.

## ARTICLE I

### SCOPE OF SERVICES

The ENGINEER agrees to furnish the OWNER the following specific services:

#### 2.0 BASIC SERVICES

BASIC SERVICES provided by the ENGINEER shall generally be covered under the following activities:

Activity A – Support for DEIS

Activity B – Project Coordination

Activity C – Mitigation Design Approach Details

Specific tasks for each activity are identified in the following sections.

#### ACTIVITY A – SUPPORT FOR DEIS

##### Task 1 – General Support

ENGINEER will provide support to OWNER as OWNER receives comments, questions and requests for information from agencies reviewing the Administrative DEIS. ENGINEER will confer with the OWNER on such inquiries and will provide information as needed to address agency inquiries. ENGINEER will prepare a Response to Comment (RTC) Matrix that will track and document agency inquiries related to the DEIS and the response to such inquiries as provided by the ENGINEER. Budget for this task assumes the overall mitigation approach as presented in the current proposed Mitigation Plan (i.e., use of SWAMPIM as the functional methodology, mitigation

area, mitigation quantity needed) will be acceptable to the regulatory agencies with the understanding that additional details will need to be provided.

Deliverables:

- Information needed to respond to agency inquiries.
- RTC matrix

### **Task 2 – Meetings with OWNER/USACE/3<sup>rd</sup> Party EIS Preparer**

ENGINEER will participate by phone, in meetings with OWNER and USACE/3<sup>rd</sup> Party EIS preparer. ENGINEER has budgeted for up to eight (8) – one (1) hour meetings for participation in meetings. ENGINEER has also budgeted for one (1) meeting to be held at the USACE Fort Worth District Office.

## **ACTIVITY B – PROJECT COORDINATION**

### **Task 1 – Project Management**

Provide general project management for the project. Project management shall include, but not be limited to, developing and implementing a project management plan; tracking and managing internal schedules of work; monitoring and addressing issues related to the scope of work, budget, and deliverables; preparing and processing monthly billings; providing labor resources necessary to fulfill scoped work; scheduling and participating in quality control reviews; coordinating and tracking requests for information; and providing updates to the OWNER on a monthly basis. ENGINEER has budgeted four (4) months of project management for this Task Order.

Deliverables:

- Monthly Invoices, with supporting documentation
- Monthly progress reports, including
  - Work performed during past month
  - Work planned for next month
  - Budget report
  - Project schedule
  - Issues log and information request log

### **Task 2 – Initial Project Meeting/Workshop**

ENGINEER shall prepare for and facilitate an initial meeting/workshop for the Mitigation Project. The meeting will include members of the ENGINEER'S team (regulatory staff, design staff, QA/QC staff), OWNER's staff, LRH dam designer (Freese & Nichols, Inc., "FNI"), and LRH Program (Ed Motley). At the meeting, the ENGINEER will confirm with the OWNER the scope of work, deliverables, schedule, and administrative protocols.

a. ENGINEER will prepare and present at the meeting/workshop the following:

1. Review the proposed mitigation improvements and confirm those improvements to be included under this Task Order;
  - ENGINEER will use the existing 2' contour map (2006-2007 photogramatic map) and concept maps included in the proposed Mitigation Plan for this meeting.

2. Review the scope of work and deliverables;
  - ENGINEER will confirm those mitigation elements to be designed by the ENGINEER and those to be designed by FNI. FNI will design the grade control structure located on the main channel of the NSR (immediately upstream of the confluence with Baker Creek); earthen fill within the main channel from behind the grade control structure up to the toe of the dam; the restored NSR main channel and riparian zone located on the earthen fill; and the final (i.e., lowermost) grade control structure on all tributaries discharging into the restored NSR main channel (APAI to provide design criteria for the final grade control structures on the tributaries).
3. Review the process for receiving, addressing, and responding to agency inquiries relating to the DEIS and/or proposed Mitigation Plan, including;
  - Communication plan between OWNER and ENGINEER (and ENGINEER team members), as well as to the appropriate agency;
  - Method for establishing the need for meetings with agency representatives, including field meetings at the site;
  - Process for preparing supplemental information to the proposed Mitigation Plan;
  - Reviewing a draft RTC matrix.
4. Review the process for:
  - Specifying geotechnical information needed for design of the mitigation improvements and the schedule for obtaining said information
  - Coordinating mitigation design efforts conducted by the ENGINEER with those to be performed by FNI;
5. Review the project schedule, including
  - Identifying critical path tasks;
  - Work to be performed in the next 2 months, including field activities.
6. Obtain updates from the OWNER on:
  - Obtaining right-of-entry to properties not currently owned by the OWNER;
7. Identify and discuss considerations for the design of the mitigation improvements. Considerations to include:
  - Providing an overview of the natural channel design methodology;
  - Confirming the process of establishing the location, general layout and elevation(s) associated with the transition grade control structure to be placed at the east end of the NSR main channel;
  - Confirming the process of establishing the design criteria for the final (lowermost) grade control structures located on tributaries of the restored NSR main channel;
  - Confirming the process of integrating the design of all components associated with the restored NSR main channel and its tributaries (i.e., those components designed by FNI and those designed by the ENGINEER);
  - Identifying design flow rates for releases from the reservoir to the restored former NSR and to the main channel of the NSR;
  - Incorporation of existing ponds and filling of degraded stream reaches;
  - Crossing of existing streams with created/restored streams;
  - Reviewing SWAMPIM metrics, identifying mitigation approaches for maximizing ecological uplift, and discussing incorporation of such practices into the design plans;
  - Needs for site access after construction;

- Addressing design of improvements required by the TCEQ Water Use Permit to the extent necessary for this Task Order
8. Advise OWNER as to the necessity of OWNER providing or obtaining data or services from others and the necessary schedule for obtaining such data.
  9. Develop an Issues Log, Information Request Log, and Action Item Log documenting meeting outcomes.
- b. ENGINEER will prepare and distribute draft meeting notes to the OWNER for review within 3 business days of the workshop. After receipt of comments, the meeting notes will be revised as appropriate, finalized and distributed to the OWNER and team for record purposes.

**Deliverables:**

- Draft and Final Meeting Notes. Meeting notes will include a copy of all meeting handouts as an attachment.

**Task 3 – Project Progress Meetings**

ENGINEER will coordinate, prepare for, and conduct coordination meetings to review progress of the project with the OWNER and the consultants working on the project. Meetings shall take place at the OWNER's office in Lewisville (or other location approved by the OWNER). Meetings are anticipated to occur on a monthly basis or at intervals designated by the OWNER.

- a. ENGINEER will prepare an agenda for the meetings. At a minimum, the agenda will include the following items:
  - Review of work completed during the past month,
  - Review of work planned for the next month,
  - Information requested and status (Information Request Log),
  - Agency inquiries and status (RTC log),
  - Overall project schedule,
  - Status of past action items (Action Item Log),
  - Identification of new Action Items.
  - Review of Issues Log and status of identified issues.
- b. ENGINEER will moderate the meetings.
- c. ENGINEER will prepare and distribute draft meeting notes for review within 3 business days of the progress meeting. After receipt of comments, the meeting notes shall be revised as appropriate, finalized and distributed to the OWNER and project team for record purposes.
- d. Four (4) progress meetings are budgeted under this Task Order. The budgeted meetings are in addition to the initial meeting/workshop.

**Deliverables:**

- Draft and Final Meeting Notes

**ACTIVITY C – MITIGATION DESIGN APPROACH**

The proposed Mitigation Plan (dated February 5, 2018) provided only a very general description of the approach proposed to develop the required functional uplift for the mitigation project. Work conducted under this Activity will generate the field data and technical information necessary to define the mitigation design approach in the proposed Mitigation Plan, as well as to provide technical information that will be used in responding to agency inquiries. Work under this Activity will further include development of a Mitigation Design Memorandum and an initial estimate of the functional credits that may be developed through the proposed mitigation activities.

The mitigation improvements to be considered in this Activity include the following:

- Creating, restoring or enhancing approximately 115,300 LF of streams (of which approximately 8,800 LF will be within the existing NSR main channel and will be designed by FNI)
- Establishing a wooded riparian buffer around the restored, enhanced, or created streams (riparian buffer width 200 feet beyond the restored mitigation channels and within an appropriate meander belt width; riparian buffer within the restored NSR main channel to be designed by FNI), and
- Establishing areas of native prairie grasses within the riparian buffer zone and areas disturbed by construction.

Geomorphic assessments are completed prior to beginning the stream restoration design. These assessments evaluate the current state of the stream and its departure from the potential stable state that is suitable for its watershed and valley conditions. For this reason, geomorphic assessments are typically required by the regulatory agencies (particularly EPA as part of their Natural Channel Design Review Checklist (v2)).

In addition, the geomorphic assessments will:

- 1) Identify the type of stream instability (e.g. vertical instability, lateral instability)
- 2) Identify the extent of the stream impairment (e.g. localized, widespread)
- 3) Identify the cause(s) of the stream impairment
- 4) Present the bankfull characteristics and discharge for the project site
- 5) Discuss the bankfull determination and validation process and results

The geomorphic assessment will have a thorough discussion of bankfull discharge and its validation (a key component of the natural channel design process).

### **Task 1 – Field Work, Site Investigation, Data Collection**

- a. ENGINEER will review existing maps and information obtained that would be beneficial to site assessment and establishing the design procedures.
- b. ENGINEER will use previously collected GIS data (which was collected from 2005 to 2012 and represents less than 20% of the streams located on the mitigation property) and existing maps with 2-foot contours to develop baseline maps and field maps to be used and annotated during field investigations. Forms for field data will also be developed to expedite collection of data. Stream reaches will be labeled for reference.
- c. ENGINEER will walk the streams identified in the proposed Mitigation Plan and complete a visual assessment of the existing stream conditions to confirm potential for uplift. Data will be collected regarding the streams' dimensions, depths, levels of incision, location



relative to historic valleys, current functional condition using SWAMPIM, riparian vegetation condition, past disturbances, and probable mitigation approaches. For reaches that are relatively stable and exhibit visual indicators of the dominant discharge, ENGINEER will identify locations for cross-section surveys of the streams to assess the channel dimensions at the dominant (bankfull) discharge. This information will guide the design process regarding the cross-sectional area and channel dimensions for the restored and created channels. ENGINEER will also identify areas requiring topographic surveys to supplement the existing 2' contour maps (such as beneath heavily vegetated channels or water surfaces or in areas that have changed since developing the map). Survey services will be provided by the OWNER.

- d. During stream walks, the ENGINEER will identify segments of existing channels that are stable and functioning at a high geomorphological condition. These reaches will be analyzed to guide the geomorphic design of the restored stream reaches.
- e. Collected stream data will be summarized by designated stream reach into a matrix spreadsheet. The spreadsheet will form the basis for evaluating design options for each reach to provide the necessary functional uplift for the project.
- f. Develop a geotechnical sampling protocol and map of test locations for geotechnical investigations (to be performed by others). Review Geotechnical Investigation Report, when completed, to confirm field findings.

## **Task 2 – Coordination and Review of Survey**

- a. ENGINEER will coordinate with the OWNER to obtain OWNER-provided survey services described in the previous task. OWNER will arrange for surveyor to meet ENGINEER on-site and visually observe the locations to be surveyed together. ENGINEER will provide GPS coordinates and/or mark survey locations with pin flags, survey laths or other appropriate indicators for surveyor use.

OWNER will provide to the ENGINEER a finished topographic survey of the mitigation site which will encompass the 2006-2007 photogramatic survey with all survey work specified by the ENGINEER under this Activity. ENGINEER will review the topographic survey for consistency with the survey scope and conditions observed in the field during the stream assessments. ENGINEER will notify the OWNER if survey data is sufficient or if additional survey is required. If survey is insufficient, OWNER will direct surveyor to obtain the additional data needed and provide to the ENGINEER an updated topographic survey.

## **Task 3 – Coordination of Design of Restored NSR Main Channel and Associated Components**

ENGINEER will coordinate with FNI on the design of the NSR Grade Control Structure; the restored channel to be placed within the existing NSR main channel; and the final (i.e., lowermost) grade control structure within the tributaries that will discharge into the restored NSR main channel. FNI is tasked with design of the grade control structure, earthen fill behind the structure up to the toe of the dam, the restored channel/riparian zone which will be placed on top of the earthen fill, and the final (lowermost) grade control structure within each tributary discharging into the restored NSR main channel. ENGINEER is responsible for design of tributaries conveying runoff from the north mitigation area into the NSR main channel and the restored former NSR channel which will convey runoff from the south mitigation area into the

NSR main channel. ENGINEER will need to work with FNI to establish the elevation and location of the transition grade control structure, as well as the design of the final grade control structures in the tributaries that discharge into the restored NSR main channel. ENGINEER will develop and provide FNI with design criteria for the lowermost grade control structure on each tributary (FNI to design the structures). ENGINEER and FNI will also coordinate and exchange information related to calculation of functional credits (SWAMPIM data) and hydrologic design criteria.

ENGINEER has budgeted four (4) half-day workshops with FNI for coordination of the improvements noted above. Workshops will take place at either the office of the ENGINEER or FNI. ENGINEER will develop meeting notes after each workshop and route to the OWNER for record purposes. ENGINEER has also budgeted time for general coordination with FNI (outside of formal workshops).

Deliverable:

- Meeting notes for each workshop.

#### **Task 4 – Develop Initial Mitigation Detailed Design Criteria**

- a. Data collected in Task 1 will be compiled and evaluated to guide the development of design criteria for the mitigation work. Data collected from stable cross-sections and identified stable reaches will be processed and reviewed for consistency and overall trends. Bankfull cross-sectional areas will be plotted versus drainage area to develop a site specific curve that will be used as a tool for estimating proper channel size and dimension for restored/created channels.
- b. Data collected from geomorphically stable reaches will be assessed to determine trends in channel profile and bed forms for area streams. Stable ranges of the following parameters will be determined from the stable reach information: sinuosity, meander wave length, meander belt width, riffle and pool depths, radius of curvature, valley slope, and water surface slope.
- c. Dimensionless ratios that describe riffle depth, pool depth, meander radius, meander belt width, and meander length relative to the bankfull dimensions will be developed for the range of channel conditions expected as part of the mitigation design.
- d. Compile reference information, including photographs of stable channel segments and instream structures, as well as initial design criteria into a technical memorandum.
- e. Forward initial design criteria technical memorandum to OWNER and QC team in advance of the Mitigation Design Workshop.

Deliverable:

- Initial design criteria technical memorandum

#### **Task 5 – Mitigation Design Workshop & Mitigation Design Memorandum**

ENGINEER shall prepare for and facilitate a Mitigation Design Workshop. The overall objective of the workshop will be to review, revise and finalize the initial technical design criteria that will be used in development of the formal design plans. Workshop participants will include representatives of the OWNER, ENGINEER (regulatory staff, design staff, and QC team), FNI, and LRH Program (Ed Motley). The workshop will be held at the ENGINEER'S Fort Worth office. Workshop topics are anticipated to include the following:

- a. Review of project goals and objectives.

- b. Review of the existing condition assessments that have been completed to date.
- c. Present a summary of reference information from surveyed stable reaches and stable cross-sections that have been used to develop the initial design criteria.
- d. Present the initial design criteria developed in the previous task and the basis for its development. ENGINEER will lead a discussion of the design criteria selection with the workshop group to answer any questions and evaluate any potential changes or suggestions.
- e. Review existing hydrologic analysis performed by others (Brandes) and hydrologic analyses performed by the ENGINEER for this workshop.
- f. Review specific stream reaches and discuss the application of design criteria in those areas. In particular, ENGINEER will discuss approaches to be taken for:
  - 1. Design and connection of major tributaries to the restored stream located within the NSR main channel (FNI to present data and information related to the grade control structure, earthen fill and initial channel design);
  - 2. Design of the restored former NSR channel, with emphasis on inclusion of perennial pools;
  - 3. Design and connection of major tributaries to the restored former NSR channel;
  - 4. Establishment of riparian areas surrounding the streams;
- g. ENGINEER will document decisions made in the workshop, including revisions to the initial mitigation detailed design criteria. The design criteria will be finalized and documented through issuance of a Mitigation Design Memorandum (MDM). Elements of the MDM will include:
  - 1. Overview of project
  - 2. Summary of proposed Mitigation Plan (dated February 5, 2018), including general description of mitigation project components (streams, riparian buffer zones, etc.)
  - 3. Previous data, reports reviewed
  - 4. Description of field data collected
    - i. Observations from stream investigations (stream dimensions, depths, levels of incision, location relative to historic valleys, etc.)
    - ii. Observations from relatively stable reaches (cross-section dimensions, riffle-run-pool-glide spacing, plan view geometry, etc.)
    - iii. Soil/sediment characteristics
    - iv. Biological observations
    - v. Current functional condition (using SWAMPIM)
  - 5. Summary of geotechnical investigation (Note – geotechnical investigation to be performed by others)
  - 6. Existing baseline conditions (table, baseline maps, photographs)
  - 7. Criteria for hydraulic modeling (includes documentation of release rates from reservoir and results of hydrologic analyses)
  - 8. Geomorphic design criteria
    - i. Stream form relationships developed from stable reaches (bankfull cross-section vs. drainage area, others)

- ii. Recommended design parameters (sinuosity, meander wave length, meander belt width, riffle and pool depths, radius of curvature, channel slope, etc.)
9. Preliminary design of NSR grade control structure, backfill, restored stream, and final tributary grade control structures (to be provided by FNI)
10. Design approaches for:
  - i. Created streams (in open fields, crossing existing streams, etc.)
  - ii. Restored streams
  - iii. Enhanced streams
  - iv. Tributaries connected to NSR main channel
  - v. In-stream structures for grade control, habitat enhancement, etc.
  - vi. Removing existing ponds
  - vii. Establishing riparian buffers
  - viii. Permanent pools
11. Revised/updated preliminary stream mitigation approaches
  - i. Update/revision of conceptual design (dated February 5, 2018)
  - ii. Description of streams (created, restored, enhanced with stream identifier table)
  - iii. Figures using scale 1" = 500'
12. Estimated mitigation potential (see Task 6)
  - i. Table
13. Conclusions and Recommendations
14. Appendices (Fieldwork documentation, photographs, etc.)

A draft MDM in electronic format (PDF) will be distributed to the OWNER and workshop participants for review and comment within two (2) weeks of the workshop. ENGINEER will receive comments back from meeting participants and revise the MDM as appropriate. A final MDM will be distributed to the OWNER for record purposes. ENGINEER will provide six (6) hard copies and electronic file (PDF). The final MDM will be submitted to agencies in support of a future update to the Mitigation Plan.

**Deliverables:**

- Draft and Final Mitigation Design Memorandum

**Task 6 – Preliminary Estimate of Mitigation Potential**

ENGINEER will provide an estimate of mitigation potential available at the site based on data obtained from the fieldwork (updated baseline) and the revised mitigation approach. Credits will be broken out by stream reach and presented in a tabular format (spreadsheet).

ENGINEER will forward table to OWNER and meet with OWNER to review and discuss the preliminary estimate of mitigation potential. ENGINEER will consult with OWNER as to any actions that may need to be taken as a result of the preliminary estimate (e.g. identify locations for additional stream length). Based on input from the OWNER, ENGINEER will develop an updated definition of mitigation improvements to be designed in a subsequent Task Order.

Deliverables:

- Preliminary estimate of mitigation potential (spreadsheet table)

### **Task 7 – Meeting with Review Agencies**

ENGINEER will prepare for and meet with the USACE and state and federal agencies reviewing the proposed Mitigation Plan at an office of the USACE (assumed to be Lake Belton). Preparation will include one phone conference with the OWNER to review presentation materials and meeting expectations. One (1) meeting with the USACE and review agencies is budgeted under this task order. ENGINEER will prepare meeting notes and distribute to the OWNER and consultant team for review and comment. ENGINEER will consult with the OWNER after the meeting and identify future actions to be taken based on the meeting.

Deliverables:

- Meeting with USACE and other agencies.
- Meeting notes

### **ADDITIONAL SERVICES**

ADDITIONAL SERVICES are activities not currently anticipated as part of this project, but which the OWNER may request. The ENGINEER will perform ADDITIONAL SERVICES only as authorized in writing by the OWNER.

- A. Design of mitigation improvements beyond the scope described in BASIC SERVICES.
- B. Preparation and submittal of an update to the Mitigation Plan.
- C. Development of an approved Mitigation Plan (including detailed design of necessary mitigation improvements) based on the use of a functional assessment method other than SWAMPIM.
- D. Design of the recirculation pump system as identified in the *Conceptual Design and Analysis of the Proposed North Sulphur Riparian Habitat Mitigation Area for Lake Ralph Hall*; not part of the BASIC SERVICES.
- E. Preparing Phase I Environmental Assessments and Stormwater Discharge Permits except as specifically included in BASIC or SPECIAL SERVICES.
- F. Appearing before regulatory agencies or courts as an expert witness in any litigation with third parties other than condemnation proceedings arising from the development or construction of the project, including the preparation of engineering data and reports for assistance to the OWNER.
- G. Investigations involving detailed consideration of operation, maintenance and overhead expenses, and the preparation of rate schedules, earnings and expense statements, feasibility studies, appraisals, evaluations, assessment schedule, and material audits or inventories required for certification of force account construction performed by the OWNER.

- H. Providing or coordinating LiDAR, topographic or boundary surveys beyond the limits set in BASIC SERVICES.
- I. Assisting with outreach and education of future land use with the mitigation plan. This education outreach may include adjacent landowners, communication with parcel owners that OWNER is negotiating acquisition/easements. This effort may include Meeting with Affected Property Owners (MAPO).
- J. Estimating the mitigation credit potential of the adjacent parcel land, if additional need is determined appropriate. Estimates for baseline conditions and function uplift would be determined utilizing SWAMPIM or other protocol approved by the USACE Fort Worth District. Tracts to be evaluated would be identified as part of this process. A detailed scope would be provided once parcels, if applicable, have been identified.

## ARTICLE II

### COMPENSATION

#### BASIC SERVICES

Compensation by the OWNER to the ENGINEER for Activities A through C of BASIC SERVICES shall be based on the actual labor hours and expenses incurred in performing the work, in accordance with Exhibit A. Total compensation for BASIC SERVICES in Task Order No. 1 shall not exceed \$889,217.00.

#### ADDITIONAL SERVICES

Compensation by the OWNER to the ENGINEER for any of the Additional Services enumerated in Task Order No. 1 will be based on the actual labor hours and expenses incurred in performing the work, in accordance with Exhibit A. No work will be performed under this item without prior written authorization of the OWNER. The budget allocation for Additional Services for Task Order No. 1 is \$50,000.00.

#### COMPENSATION SUMMARY

Basic Services Subtotal	\$ 889,217.00
Additional Services Subtotal	\$ 50,000.00
<b>TOTAL</b>	<b>\$ 939,217.00</b>

For the OWNER, UPPER TRINITY REGIONAL WATER DISTRICT dated this \_\_\_\_\_ day  
of \_\_\_\_\_, 2018.

By: \_\_\_\_\_

\_\_\_\_\_

Name

Title

For the ENGINEER ALAN PLUMMER ASSOCIATES, INC dated this \_\_\_\_\_ day  
of \_\_\_\_\_, 2018.

By: \_\_\_\_\_

Alan R. Tucker, P.E., Principal

Name

Title