



STATE OF TEXAS

TWDB Contract No. 1600012013

COUNTY OF TRAVIS

General Revenue  
Naismith Engineering, Inc.

This Contract, (hereinafter "CONTRACT"), between the Texas Water Development Board (hereinafter "TWDB") and Naismith Engineering, Inc. (hereinafter "CONTRACTOR"), is composed of two parts, SECTION I. SPECIFIC CONDITIONS AND EXCEPTIONS TO THE STANDARD AGREEMENT and SECTION II. STANDARD AGREEMENT. The terms and conditions set forth in SECTION I will take precedence over terms and conditions in SECTION II.

## **SECTION I. SPECIFIC CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT**

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### **ARTICLE I. DEFINITIONS**

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For the purposes of this CONTRACT, the following terms or phrases shall have the meaning ascribed therewith:

1. TWDB – The Texas Water Development Board, or its designated representative
2. CONTRACTOR – Naismith Engineering, Inc.
3. EXECUTIVE ADMINISTRATOR – The Executive Administrator of the TWDB or a designated representative
4. PARTICIPANT(S) – N/A
5. REQUIRED INTERLOCAL AGREEMENT(S) – N/A
6. RESEARCH PROJECT – Verification and feasibility assessment for landform modifications in the Nueces Delta
7. TWDB APPROVAL DATE – July 21, 2016
8. DEADLINE FOR CONTRACT EXECUTION – November 18, 2016
9. CONTRACT INITIATION DATE – September 1, 2016
10. STUDY COMPLETION DATE – June 30, 2017
11. CONTRACT EXPIRATION DATE – August 31, 2017

12. TOTAL STUDY COSTS – \$60,000.00
13. TWDB SHARE OF THE TOTAL STUDY COSTS – the lesser of \$60,000.00 or 100 percent of the total study costs or individual payment submission
14. LOCAL SHARE OF THE TOTAL STUDY COSTS – Zero in cash or zero percent of the total study costs or individual payment submission
15. PAYMENT SUBMISSION SCHEDULE – Monthly
16. OTHER SPECIAL CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT OF THIS CONTRACT –
  1. Section II. Article III, Item No. 7 is deleted in its entirety

## **SECTION II. STANDARD AGREEMENT**

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### **ARTICLE I. RECITALS**

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Whereas, on TWDB APPROVAL DATE, the TWDB considered providing the CONTRACTOR a grant to conduct a RESEARCH PROJECT;

Whereas, the CONTRACTOR and PARTICIPANT will commit the LOCAL SHARE OF THE TOTAL STUDY COSTS, if applicable, in cash and/or in-kind services to pay for the LOCAL SHARE OF THE TOTAL STUDY COSTS of this RESEARCH PROJECT;

Whereas, the CONTRACTOR is the entity who will act as administrator of the TWDB's research grant and will be responsible for the execution of this contract;

Whereas, on the TWDB APPROVAL DATE, the TWDB approved a research grant to CONTRACTOR;

Now, therefore, the TWDB and the CONTRACTOR, agree as follows:

### **ARTICLE II. PROJECT DESCRIPTION AND SERVICES TO BE PERFORMED**

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1. The TWDB enters into this CONTRACT pursuant to Water Code 16.012 as appropriate; Exhibit A, the original grant application, which is incorporated herein and made a permanent part of this CONTRACT.
2. The CONTRACTOR will conduct a RESEARCH PROJECT, as delineated and described in Exhibit A, according to the Scope of Work contained in Exhibit B.
3. A progress report, including results to date, will be provided to the EXECUTIVE ADMINISTRATOR monthly throughout the project. Special interim reports on special topics and/or results will be provided as appropriate. Instructions for the progress report are shown in Exhibit E, TWDB Guidelines for a Progress Report.
4. Within the first 60 days of the commencement of this CONTRACT, CONTRACTOR will consult with TWDB staff to prepare a list of entities that potentially may be affected by the results of this RESEARCH PROJECT. On the STUDY COMPLETION DATE, this list will be reviewed and updated by the CONTRACTOR and submitted to the TWDB with the draft final report.

### **ARTICLE III. CONTRACT TERM, SCHEDULE, REPORTS, AND OTHER PRODUCTS**

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1. The CONTRACTOR has until the DEADLINE FOR CONTRACT EXECUTION to execute this CONTRACT and to provide acceptable evidence of any REQUIRED INTERLOCAL AGREEMENT(S) and the Contractors' ability to provide the LOCAL SHARE OF THE TOTAL STUDY COSTS, if applicable, to the

EXECUTIVE ADMINISTRATOR for approval or the TWDB's SHARE OF THE TOTAL STUDY COSTS will be rescinded.

2. The term of this CONTRACT shall begin and the CONTRACTOR shall begin performing its obligations hereunder on the CONTRACT INITIATION DATE and shall expire on the CONTRACT EXPIRATION DATE. Delivery of an acceptable final report prior to the CONTRACT EXPIRATION DATE shall constitute completion of the terms of this CONTRACT.
3. The CONTRACTOR will complete the Scope of Work and will deliver four (4) double-sided copies of a draft final report to the EXECUTIVE ADMINISTRATOR no later than the STUDY COMPLETION DATE. The draft final report will include the scope of work; a description of the research performed; the methodology and materials used; any diagrams or graphics used to explain the procedures related to the study; any data collected; an electronic copy of any computer programs, maps, or models along with an operations manual and any sample data set(s) developed under the terms of this CONTRACT; analysis of the research results; conclusions and recommendations; a list of references, a Table of Contents, List of Figures, List of Tables, an Executive Summary, and any other pertinent information. All final reports should be prepared according to Exhibit D, Guidelines for Authors Submitting Contract Reports to the Texas Water Development Board. After a 30-day review period, the EXECUTIVE ADMINISTRATOR will return review comments to the CONTRACTOR.
4. The CONTRACTOR will consider incorporating comments from the EXECUTIVE ADMINISTRATOR and other commentors on the draft final report into a final report. The CONTRACTOR will include a copy of the EXECUTIVE ADMINISTRATOR's comments in the final report. The CONTRACTOR will submit one (1) electronic copy of the entire final report in Portable Document Format (PDF) and five (5) bound double-sided copies of the final report to the EXECUTIVE ADMINISTRATOR no later than the sixty days (60) after the STUDY COMPLETION DATE.
5. The CONTRACTOR will submit one (1) electronic copy of any computer programs or models and an operations manual developed under the terms of this CONTRACT. In compliance with Texas Administrative Code Chapters 206 and 213 (related to Accessibility and Usability of State Web Sites), the digital copy of the final report will comply with the requirements and standards specified in statute. After a 30-day review period, the EXECUTIVE ADMINISTRATOR will either accept or reject the final report. If the final report is rejected, the rejection letter sent to the CONTRACTOR shall state the reasons for rejection and the steps the CONTRACTOR needs to take to have the final report accepted and the retainage released.
6. The CONTRACTOR will submit the most recent progress report with submittal of payments according to the PAYMENT SUBMISSION SCHEDULE. Progress reports shall be in written form and shall include a brief statement of the overall progress made since the last status report; a brief description of any problems that have been encountered during the previous reporting period that will affect the study, delay the timely completion of any portion of this CONTRACT, inhibit the completion of or

cause a change in any of the study's products or objectives; and a description of any action the CONTRACTOR plans to take to correct any problems that have been encountered.

7. The EXECUTIVE ADMINISTRATOR can extend the STUDY COMPLETION DATE and the CONTRACT EXPIRATION DATE upon written approval. The CONTRACTOR should notify the EXECUTIVE ADMINISTRATOR in writing within ten (10) working days prior to the STUDY COMPLETION DATE or thirty (30) days prior to the CONTRACT EXPIRATION DATE that the CONTRACTOR is requesting an extension to the respective dates.

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#### **ARTICLE IV. COMPENSATION AND REIMBURSEMENT**

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1. The TWDB agrees to compensate and reimburse the CONTRACTOR in a total amount not to exceed the TWDB's SHARE OF THE TOTAL STUDY COSTS for costs incurred and paid by the CONTRACTOR pursuant to performance of this CONTRACT. The CONTRACTOR will contribute local matching funds, if applicable, in sources and amounts defined as the LOCAL SHARE OF THE TOTAL STUDY COSTS. The TWDB shall reimburse the CONTRACTOR for one hundred percent (100%) of the TWDB's share of each invoice pending the CONTRACTOR's performance up to ninety percent (90%) of the total funding costs. Upon completion of a Final Report, and written acceptance of said Final Report by the EXECUTIVE ADMINISTRATOR, the TWDB shall pay the remaining ten percent (10%) to the CONTRACTOR upon submission of a final invoice.
2. The CONTRACTOR shall submit payments and documentation for reimbursement billing according to the PAYMENT SUBMISSION SCHEDULE and in accordance with the approved task and expense budgets contained in Exhibit C to this CONTRACT. The CONTRACTOR has budget flexibility within task and expense budget categories to the extent that the resulting change in amount in any one task or expense category does not exceed 35% of the total authorized amount by this CONTRACT for the task or category. Larger deviations shall require approval by the EXECUTIVE ADMINISTRATOR or designee which will be documented through an Approved Budget Memorandum to the TWDB contract file. The CONTRACTOR will be required to provide written explanation for the overage and reallocation of the task and expense amount.

For all reimbursement billings including any subcontractor's expenses, the EXECUTIVE ADMINISTRATOR must have determined that the REQUIRED INTERLOCAL AGREEMENT(S) and contracts or agreements between the CONTRACTOR and the subcontractor are consistent with the terms of this CONTRACT. The CONTRACTOR is fully responsible for paying all charges by subcontractors prior to reimbursement by the TWDB.

3. The CONTRACTOR and its subcontractors shall maintain satisfactory financial accounting documents and records, including copies of invoices and receipts, and shall make them available for examination and audit by the EXECUTIVE ADMINISTRATOR.

Accounting by the CONTRACTOR and its subcontractors shall be in a manner consistent with Generally Accepted Accounting Principles.

4. By executing this CONTRACT, the CONTRACTOR accepts the authority of the State Auditor's Office, under direction of the legislative audit committee, to conduct audits and investigations in connection with any and all state funds received pursuant to this contract. The CONTRACTOR shall comply with and cooperate in any such investigation or audit. The CONTRACTOR agrees to provide the State Auditor with access to any information the State Auditor considers relevant to the investigation or audit. The CONTRACTOR also agrees to include a provision in any subcontract related to this CONTRACT that requires the subcontractor to submit to audits and investigation by the State Auditor's Office in connection with any and all state funds received pursuant to the subcontract.
  
5. The CONTRACTOR shall submit a monthly progress report as described in Article II, Item 3 which documents the TOTAL STUDY COSTS for the reporting period, even if the TOTAL STUDY COSTS for the period is zero. The monthly progress report shall be in the format described in Exhibit E and should also contain the following documentation:
  - A. Completed and Signed Payment Request Checklist which includes the following:
    - (1) TWDB CONTRACT Number;
    - (2) Billing period; beginning (date) to ending date;
    - (3) Total Expenses for this period;
    - (4) Total In-kind services, if applicable;
    - (5) Less LOCAL SHARE OF THE TOTAL STUDY COSTS for the billing period, if applicable;
    - (6) Total TWDB's SHARE OF THE TOTAL STUDY COSTS for the billing period;
    - (7) Amount of retainage to be withheld for the billing period;
    - (8) Total costs to be reimbursed by the TWDB for the billing period; and
    - (9) Certification, signed by the CONTRACTOR's authorized representative, that the expenses submitted for the billing period are a true and correct representation of amounts paid for work performed directly related to this contract.
  
  - B. For direct expenses incurred by the CONTRACTOR other than subcontracted work:
    - (1) A spreadsheet showing the tasks that were performed; the percent and cost of each task completed; a total cost figure for each direct expense category including labor, fringe, overhead, travel, and other expenses such as communication and postage, technical and computer services, expendable supplies, printing and reproduction; and
  
    - (2) Copies of detailed, itemized invoices/receipts for other expenses (credit card summary receipts or statements are not acceptable).

- C. For direct expenses incurred by the CONTRACTOR for subcontracted work:
- (1) Copies of invoices from the subcontractors to the CONTRACTOR;
  - (2) A spreadsheet showing the tasks that were performed; the percent and cost of each task completed; a total cost figure for each direct expense category including labor, fringe, overhead, travel, and other expenses such as communication and postage, technical and computer services, expendable supplies, printing and reproduction; and the total dollar amount due to the consultant; and
  - (3) Copies of detailed, itemized invoices/receipts for other expenses (credit card summary receipts or statements are not acceptable).
- D. For travel expenses for the CONTRACTOR and/or subcontractor(s) –
- (1) Names, dates, work locations, time periods at work locations, itemization of subsistence expenses of each employee, limited, however, to travel expenses authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2015, Article IX, Part 5, as amended or superseded. Receipts required for lodging;
  - (2) Copies of invoices or tickets for transportation costs or, if not available, names, dates, and points of travel of individuals; and
  - (3) All other reimbursable travel expenses -- invoices or purchase vouchers showing reason for expense with receipts to evidence the amount incurred.
6. Incomplete requests will be returned to the CONTRACTOR if deficiencies are not resolved within ten (10) business days.
  7. If for some reason the reimbursement request cannot be processed due to the need for an amendment to the CONTRACT, the CONTRACTOR will be required to resubmit the Payment Request Checklist dated after the execution of the amendment.
  8. The CONTRACTOR is responsible for any food or entertainment expenses incurred by its own organization or that of its subcontractors, outside that of the travel expenses authorized and approved by the State of Texas under this CONTRACT.
  9. A compliance report in accordance with Texas Administrative Code (TAC) Title 1, Part 5, Chapter 111, Subchapter B, Rule §111.14; The CONTRACTOR shall maintain business records documenting its compliance with the approved Historically Underutilized Business subcontracting plan in the format prescribed by the Texas Procurement and Support Services (Exhibit F). The compliance reports must include payment information on all HUB and non-HUB subcontractors. Submittal of these monthly compliance reports is required as a condition of payment.

The TWDB will monitor the HUB subcontracting plan monthly to ensure the value of the subcontracts meets or exceeds the HUB subcontracting provisions specified in the contract. CONTRACTOR who fails to implement the HUB subcontracting plan in good faith will be reported to Texas Procurement and Support Services. The TWDB may

revoke the contract for breach of contract and make a claim against the contractor.

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## **ARTICLE V. INTELLECTUAL PROPERTY: OWNERSHIP, PUBLICATION, AND ACKNOWLEDGMENT**

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1. “Use” of a work product, whether a CONTRACTOR Works, a Subcontractor Works or otherwise, shall mean and include, without limitation hereby, any lawful use, copying or dissemination of the work product, or any lawful development, use, copying or dissemination of derivative works of the work product, in any media or forms, whether now known or later existing.
2. “No Compensation Obligation” shall mean there is no obligation on the part of one co-owner or licensee of a work, whether a CONTRACTOR Works, a Subcontractor Works or otherwise, to compensate other co-owners, licensees or licensors of the work for any use of the work by the using co-owner or licensee, including but not limited to compensation for or in the form of: royalties; co-owner or licensee accounting; sharing of revenues or profits among co-owners, licensees or licensors; or any other form of compensation to the other co-owners, licensees or licensors on account of any use of the work.
3. “Dissemination” shall include, without limitation hereby, any and all manner of: physical distribution; publication; broadcast; electronic transmission; internet streaming; posting on the Internet or world wide web; or any other form of communication, transmission, distribution, sending or providing, in any forms or formats, and in or using any media, whether now known or later existing.
4. The TWDB shall have an unlimited, unrestricted, perpetual, irrevocable, non-exclusive royalty-free right to access and receive in usable form and format, and to use all technical or other data or information developed by CONTRACTOR and Subcontractor in, or otherwise resulting from, the performance of services under this CONTRACT.
5. For purposes of this Article, “CONTRACTOR Works” are work products developed by CONTRACTOR and Subcontractor using funds provided under this CONTRACT or otherwise rendered in or related to the performance in whole or part of this CONTRACT, including but not limited to reports, drafts of reports, or other material, data, drawings, studies, analyses, notes, plans, computer programs and codes, or other work products, whether final or intermediate.
  - a. It is agreed that all CONTRACTOR Works shall be the joint property of the TWDB and CONTRACTOR.
  - b. The parties hereby agree that, if recognized as such by applicable law, the CONTRACTOR Works are intended to and shall be works-made-for-hire with joint ownership between the TWDB and CONTRACTOR as such works are created in whole or part.
  - c. If the CONTRACTOR Works do not qualify as works-made-for-hire under

applicable law, CONTRACTOR hereby conveys co-ownership of such works to the TWDB as they are created in whole or part. If present conveyance is ineffective under applicable law, CONTRACTOR agree to convey a co-ownership interest of the CONTRACTOR Works to the TWDB after creation in whole or part of such works, and to provide written documentation of such conveyance upon request by the TWDB.

- d. The TWDB and CONTRACTOR acknowledge that the copyright in and to a copyrightable CONTRACTOR Work subsists upon creation of the CONTRACTOR Work and its fixing in any tangible medium. CONTRACTOR or the TWDB may register the copyrights to such Works jointly in the names of the CONTRACTOR and the TWDB.
  - e. The TWDB and CONTRACTOR each shall have full and unrestricted rights to use a CONTRACTOR Work with No Compensation Obligation.
6. For purposes of this Article, “Subcontractor Works” include all work product developed in whole or part by or on behalf of Subcontractors engaged by CONTRACTOR to perform work for or on behalf of any CONTRACTOR under this CONTRACT (or by the Subcontractors’ Subcontractors hereunder, and so on). CONTRACTOR shall secure in writing from any Subcontractors so engaged:
- a. unlimited, unrestricted, perpetual, irrevocable, royalty-free rights of the TWDB (and, if desired, of CONTRACTOR) to access and receive, and to use, any and all technical or other data or information developed in or resulting from the performance of services under such engagement, with No Compensation Obligation; and either,
  - b. assignment by the Subcontractor to the TWDB (and, if desired by them, jointly to the CONTRACTOR) of ownership (or joint ownership with the Subcontractor) of all Subcontractor Works, with No Compensation Obligation; or,
  - c. grant by Subcontractor of a non-exclusive, unrestricted, unlimited, perpetual, irrevocable, world-wide, royalty-free license to the TWDB (and, if desired by them, the CONTRACTOR) to use any and all Subcontractor Works, including the right to sublicense use to third parties, with No Compensation Obligation.
7. No unauthorized patents. CONTRACTOR Works and Subcontractor Works or other work product developed or created in the performance of this CONTRACT or otherwise using funds provided hereunder shall not be patented by CONTRACTOR or their Subcontractor unless the EXECUTIVE ADMINISTRATOR consents in writing to submission of an application for patent on such works; and provided that, unless otherwise agreed in writing, any application made for patent shall include and name the TWDB (and, as applicable and desired by them, CONTRACTOR) as co-owners of the patented work:

- a. no patent granted shall in any way limit, or be used by CONTRACTOR or Subcontractor to limit or bar the TWDB's rights hereunder to access and receive in useable form and format, and right to use, any and all technical or other data or information developed in or resulting from performance pursuant to this CONTRACT or the use of funds provided hereunder; and,
  - b. the TWDB (and, if applicable, the CONTRACTOR) shall have No Compensation Obligation to any other co-owners or licensees of any such patented work, unless otherwise expressly agreed in writing.
8. CONTRACTOR shall include terms and conditions in all contracts or other engagement agreements with any Subcontractors as are necessary to secure these rights and protections for the TWDB; and shall require that their Subcontractors include similar such terms and conditions in any contracts or other engagements with their Subcontractors. For the purposes of this section, "Subcontractors" includes independent contractors (including consultants) and also employees working outside the course and scope of employment.
  9. Any work products subject to a TWDB copyright or joint copyright and produced or developed by the CONTRACTOR or their Subcontractor pursuant to this CONTRACT or using any funding provided by the TWDB may be reproduced in any media, forms or formats by the TWDB or CONTRACTOR at their own cost, and be disseminated in any medium, format or form by any party at its sole cost and in its sole discretion. CONTRACTOR may utilize such work products as they may deem appropriate, including dissemination of such work products or parts thereof under their own name, provided that any TWDB copyright is noted on the materials.
  10. The CONTRACTOR agrees to acknowledge the TWDB in any news releases or other publications relating to the work performed under this CONTRACT.

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## **ARTICLE VI. AMENDMENT, TERMINATION, AND STOP ORDERS**

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1. This CONTRACT may be altered or amended by mutual written consent or terminated by the EXECUTIVE ADMINISTRATOR at any time by written notice to the CONTRACTOR. Upon receipt of such termination notice, the CONTRACTOR shall, unless the notice directs otherwise, immediately discontinue all work in connection with the performance of this CONTRACT and shall proceed to cancel promptly all existing orders insofar as such orders are chargeable to this CONTRACT. The CONTRACTOR shall submit a statement showing in detail the work performed under this CONTRACT to the date of termination. The TWDB shall then pay the CONTRACTOR promptly that proportion of the prescribed fee, which applies to the work, actually performed under this CONTRACT, less all payments that have been previously made. Thereupon, copies of all work accomplished under this CONTRACT shall be delivered to the TWDB.
2. The EXECUTIVE ADMINISTRATOR may issue a Stop Work Order to the CONTRACTOR at any time. Upon receipt of such order, the CONTRACTOR shall

discontinue all work under this CONTRACT and cancel all orders pursuant to this CONTRACT, unless the order directs otherwise. If the EXECUTIVE ADMINISTRATOR does not issue a Restart Order within 60 days after receipt by the CONTRACTOR of the Stop Work Order, the CONTRACTOR shall regard this CONTRACT terminated in accordance with the foregoing provisions.

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## **ARTICLE VII. SUBCONTRACTS**

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Each Subcontract entered into to perform required work under this CONTRACT shall contain the following provisions:

- a. a detailed budget estimate with specific cost details for each task or specific item of work to be performed by the Subcontractor and for each category of reimbursable expenses;
- b. a clause stating that the Subcontract is subject to audit by the Texas State Auditor's Office and requiring the Subcontractor to cooperate with any request for information from the Texas State Auditor, as further described in Article X, Section 1, Paragraph D hereof;
- c. a clause stating that payments under the Subcontract are contingent upon the appropriation of funds by the Texas Legislature, as further described in Article X, Section 1, Paragraph A hereof;
- d. a clause stating that ownership of data, materials and work papers, in any media, that is gathered, compiled, adapted for use, or generated by the Subcontractor or the CONTRACTOR shall become data, materials and work owned by the TWDB and that Subcontractor shall have no proprietary rights in such data, materials and work papers, except as further described in Article V hereof;
- e. a clause stating that Subcontractor shall keep timely and accurate books and records of accounts according to Generally Acceptable Accounting Principles as further described in Article X, Section 2, Paragraph H;
- f. a clause stating that Subcontractor is solely responsible for securing all required licenses and permits from local, state and federal governmental entities and that Subcontractor is solely responsible for obtaining sufficient insurance in accordance with the general standards and practices of the industry or governmental entity; and,
- g. a clause stating that Subcontractor is an independent contractor and that the TWDB shall have no liability resulting from any failure of Subcontractor that results in breach of CONTRACT, property damage, personal injury or death.

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## **ARTICLE VIII. LICENSES, PERMIT, AND INSURANCE**

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1. For the purpose of this CONTRACT, the CONTRACTOR will be considered an independent contractor and therefore solely responsible for liability resulting from

negligent acts or omissions. The CONTRACTOR shall obtain all necessary insurance, in the judgment of the CONTRACTOR, to protect themselves, the TWDB, and employees and officials of the TWDB from liability arising out of this CONTRACT.

2. The CONTRACTOR shall be solely and entirely responsible for procuring all appropriate licenses and permits, which may be required by any competent authority for the CONTRACTOR to perform the subject work.
3. Indemnification. The CONTRACTOR shall indemnify and hold the TWDB and the State of Texas harmless, to the extent the CONTRACTOR may do so in accordance with state law, from any and all losses, damages, liability, or claims therefore, on account of personal injury, death, or property damage of any nature whatsoever caused by the CONTRACTOR, arising out of the activities and work conducted pursuant to this CONTRACT. The CONTRACTOR is solely responsible for liability arising out of its negligent acts or omissions during the performance of this CONTRACT.

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#### **ARTICLE IX. SEVERANCE PROVISIONS**

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Should any one or more provisions of this CONTRACT be held to be null, void, voidable, or for any reason whatsoever, of no force and effect, such provision(s) shall be construed as severable from the remainder of this CONTRACT and shall not affect the validity of all other provisions of this CONTRACT which shall remain of full force and effect.

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#### **ARTICLE X. GENERAL TERMS AND CONDITIONS**

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1. GENERAL TERMS.
  - a. No Debt Against the State. This CONTRACT does not create any debt by or on behalf of the State of Texas and the TWDB. The TWDB's obligations under this CONTRACT are contingent upon the availability of appropriated funds and the continued legal authority of the TWDB to enter into this CONTRACT.
  - b. Independent Contractor. Both parties hereto, in the performance of this contract, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.
  - c. Procurement Laws. The CONTRACTOR shall comply with applicable State of Texas procurement laws, rules and policies, including but not limited to competitive bidding and the Professional Services Procurement Act, Government Code, Chapter 2254, relating to contracting with persons whose services are within the scope of practice of: accountants, architects, landscape architects, land surveyors, medical doctors, optometrists, professional engineers, real estate appraisers, professional nurses, and certified public accountants.
  - d. Right to Audit. The CONTRACTOR and its Subcontractors shall maintain all

financial accounting documents and records, including copies of all invoices and receipts for expenditures, relating to the work under this CONTRACT. CONTRACTOR shall make such documents and records available for examination and audit by the EXECUTIVE ADMINISTRATOR or any other authorized entity of the State of Texas. CONTRACTOR'S financial accounting documents and records shall be kept and maintained in accordance with Generally Acceptable Accounting Principles. By executing this CONTRACT, the CONTRACTOR accepts the authority of the Texas State Auditor's Office to conduct audits and investigations in connection with all state funds received pursuant to this CONTRACT. The CONTRACTOR shall comply with directives from the Texas State Auditor and shall cooperate in any such investigation or audit. The CONTRACTOR agrees to provide the Texas State Auditor with access to any information the Texas State Auditor considers relevant to the investigation or audit. The CONTRACTOR also agrees to include a provision in any Subcontract related to this CONTRACT that requires the Subcontractor to submit to audits and investigation by the State Auditor's Office in connection with all state funds received pursuant to the Subcontract.

- e. Force Majeure. Unless otherwise provided, neither CONTRACTOR nor the TWDB nor any agency of the State of Texas, shall be liable to the other for any delay in, or failure of performance, of a requirement contained in this CONTRACT caused by force majeure. The existence of such causes of delay or failure shall extend the period of performance until after the causes of delay or failure have been removed provided the non-performing party exercises all reasonable due diligence to perform. Force majeure is defined as acts of God, war, strike, fires, explosions, or other causes that are beyond the reasonable control of either party and that by exercise of due foresight such party could not reasonably have been expected to avoid, and which, by the exercise of all reasonable due diligence, such party is unable to overcome. Each party must inform the other in writing with proof of receipt within two (2) business days of the existence of such force majeure or otherwise waive this right as a defense.

## 2. STANDARDS OF PERFORMANCE.

- a. Personnel. CONTRACTOR shall assign only qualified personnel to perform the services required under this CONTRACT. CONTRACTOR shall be responsible for ensuring that any Subcontractor utilized shall also assign only qualified personnel. Qualified personnel are persons who are properly licensed to perform the work and who have sufficient knowledge, skills and ability to perform the tasks and services required herein according to the standards of performance and care for their trade or profession.
- b. Professional Standards. CONTRACTOR shall provide the services and deliverables in accordance with applicable professional standards.

CONTRACTOR represents and warrants that he is authorized to acquire Subcontractors with the requisite qualifications, experience, personnel and other

resources to perform in the manner required by this CONTRACT.

- c. Antitrust. CONTRACTOR represents and warrants that neither CONTRACTOR nor any firm, corporation, partnership, or institution represented by CONTRACTOR, or anyone acting for such firm, corporation, partnership, or institution has (1) violated the antitrust laws of the State of Texas under the Texas Business & Commerce Code, Chapter 15, of the federal antitrust laws; or (2) communicated directly or indirectly the proposal resulting in this CONTRACT to any competitor or other person engaged in such line of business during the procurement process for this CONTRACT.
- d. Conflict of Interest. CONTRACTOR represents and warrants that CONTRACTOR has no actual or potential conflicts of interest in providing the deliverables required by this CONTRACT to the State of Texas and the TWDB. CONTRACTOR represents that the provision of services under this CONTRACT will not create an appearance of impropriety. CONTRACTOR also represents and warrants that, during the term of this CONTRACT, CONTRACTOR will immediately notify the TWDB, in writing, of any potential conflict of interest that could adversely affect the TWDB by creating the appearance of a conflict of interest.

CONTRACTOR represents and warrants that neither CONTRACTOR nor any person or entity that will participate financially in this CONTRACT has received compensation from the TWDB or any agency of the State of Texas for participation in the preparation of specifications for this CONTRACT. CONTRACTOR represents and warrants that he has not given, offered to give, and does not intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor or service to any public servant in connection with this CONTRACT.

- e. Interested Parties. All non-governmental CONTRACTORS are required to submit a Certificate of Interested Parties at the time the signed contract is submitted to the TWDB. The Certificate of Interested Parties (Form 1295) is a sworn statement by the contracting business entity and must be submitted even if there is no interested party in the transaction. The Form 1295 and instructions for completing and submitting the form are available at: <https://www.ethics.state.tx.us/tec/1295-Info.htm>. The TWDB is prohibited from executing a contract unless the contracting business entity submits a completed Form 1295.
- f. Proprietary and Confidential Information. CONTRACTOR warrants and represents that any information that is proprietary or confidential, and is received by CONTRACTOR from the TWDB or any governmental entity, shall not be disclosed to third parties without the written consent of the TWDB or applicable governmental entity, whose consent shall not be unreasonably withheld.

- g. Public Information Act. CONTRACTOR acknowledges and agrees that all documents, in any media, generated in the performance of work conducted under this CONTRACT are subject to public disclosure under the Public Information Act, Government Code, Chapter 552. CONTRACTOR shall produce all documents upon request of the TWDB within two (2) business days when the documents are required to comply with a request for information under the Public Information Act.
- h. Accurate and Timely Record Keeping. CONTRACTOR warrants and represents that he will keep timely, accurate and honest books and records relating to the work performed and the payments received under this CONTRACT according to Generally Acceptable Accounting Principles. Further, CONTRACTOR agrees that he will create such books and records at or about the time the transaction reflected in the books and records occurs.
- i. Dispute Resolution. The CONTRACTOR and the TWDB agree to make a good faith effort to resolve any dispute relating to the work required under this CONTRACT through negotiation and mediation as provided by Government Code, Chapter 2260 relating to resolution of certain contract claims against the state. The CONTRACTOR and the TWDB further agree that they shall attempt to use any method of alternative dispute resolution mutually agreed upon to resolve any dispute arising under this CONTRACT if this CONTRACT is not subject to Chapter 2260.
- i. Contract Administration. The TWDB shall designate a project manager for this CONTRACT. The project manager will serve as the point of contact between the TWDB and CONTRACTOR. The TWDB's project manager shall supervise the TWDB's review of CONTRACTOR's technical work, deliverables, draft reports, the final report, payment requests, schedules, financial and budget administration, and similar matters. The project manager does not have any express or implied authority to vary the terms of the CONTRACT, amend the CONTRACT in any way or waive strict performance of the terms or conditions of the CONTRACT.

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**ARTICLE XI. CORRESPONDENCE**

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All correspondence between the parties shall be made to the following addresses:

For the TWDB:

**Contract Issues:**

Texas Water Development Board  
Attention: Contract Administration P.O.  
P.O. Box 13231  
Austin, Texas 78711-3231  
Email: [contracts@twdb.texas.gov](mailto:contracts@twdb.texas.gov)

**Payment Request Submission:** Texas  
Water Development Board Attention:  
Accounts Payable  
P.O. Box 13231  
Austin, Texas 78711-3231  
Email: [invoice@twdb.texas.gov](mailto:invoice@twdb.texas.gov)

**Physical Address:**

Stephen F. Austin State Office Building  
1700 N. Congress Avenue  
Austin, Texas 78701

For the CONTRACTOR:

**Contract Issues:**

Naismith Engineering, Inc.  
James Dodson  
4501 Gollihar Road  
Corpus Christi, Texas 78411  
Email: [jdodson@naismith-engineering.com](mailto:jdodson@naismith-engineering.com)

**Payment Request Submission:**

Naismith Engineering, Inc.  
Edna Mendoza  
4501 Gollihar Road  
Corpus Christi, Texas 78411  
Email: [emendoza@naismith-engineering.com](mailto:emendoza@naismith-engineering.com)

**Physical Address:**

4501 Gollihar Road  
Corpus Christi, Texas 78411

IN WITNESS WHEREOF, the parties have caused this CONTRACT to be duly executed in multiple originals.

**TEXAS WATER DEVELOPMENT  
BOARD**

  
\_\_\_\_\_  
Jeff Walker  
Executive Administrator

**NAISMITH ENGINEERING, INC.**

  
\_\_\_\_\_  
Grant Jackson  
Vice President

Date: 9-27-16

Date: 09/26/2016

**EXHIBIT A**

**ORIGINAL GRANT APPLICATION**

## Addendum to RFQ No. 580-16-RFQ0018 VERIFICATION AND FEASIBILITY ASSESSMENT FOR LANDFORM MODIFICATIONS IN THE NUECES DELTA

<b>RFP NO:</b>	580-16-RFQ0018	<b>ADDENDUM NO. :</b>	1
<b>Deadline for Submission for RFQ:</b>	3:00 PM, Thursday, March 24, 2016		
<b>Contact: Tina Newstrom</b>	Phone: 512-463-7979 Email: angela.wallace@twdb.texas.gov		

### PURPOSE OF ADDENDUM

Please change the following:

**On cover page listed as RESPONSES DUE and also under SECTION IV, 4.4 SCHEDULE OF EVENTS, EVENT DATE: Deadline for Submission: Change due date from March 24, 2016 to April 7, 2016.**

\_\_\_\_\_  
End of Addendum No. 1

**IN THE SUBMISSION OF RFP, RESPONDENT SHOULD ACKNOWLEDGE RECEIPT OF THIS ADDENDUM; OTHERWISE THE SUBMISSION MAY NOT BE GIVEN CONSIDERATION. RESPONDENT MAY ACKNOWLEDGE RECEIPT BY RETURNING A SIGNED COPY WITH THEIR SUBMISSION.**

*Naismith Engineering, Inc.*  
RESPONDENT NAME

*Grant A. Jackson*  
\_\_\_\_\_  
AUTHORIZED SIGNATURE  
*Grant A. Jackson*  
Vice President

2016 APR -5 AM 11:02



# Naismith Engineering, Inc

ARCHITECTURE ■ ENGINEERING ■ ENVIRONMENTAL ■ SURVEYING

TBPE FIRM NO. F-355

ESTABLISHED 1949

TBPLS No. F-100395-00

OVER 60 YEARS OF ENGINEERING EXCELLENCE

March 22, 2016

Ms. Angela Wallace  
Texas Water Development Board  
1700 N. Congress Avenue, 6<sup>th</sup> Floor Reception Desk  
Austin, Texas 78701

Re: **Response to RFQ No. 580-16-RFQ0018**  
Verification and Feasibility Assessment for Landform Modifications in the Nueces Delta

Dear Ms. Wallace:

Naismith Engineering, Inc. (NEI), in association with Dr. Ben Hodges and Dr. Jon Lohse of Coastal Environments, Inc. (CEI), is pleased to present this proposal for services supporting the efforts of the Nueces River and Corpus Christi and Baffin Bays Basin and Bay Area Stakeholder Committee (Nueces BBASC) as it seeks to identify, quantify, and implement strategies to meet environmental flow standards, particularly with respect to fresh water inflows to the Nueces Delta/Bay system. NEI and its partners in this project are intimately familiar with the physical, ecological, and hydrological setting of the project, the history of research projects and water management strategies employed in the Nueces Delta, the Senate Bill 3 (SB3) process, and the specific issues surrounding this effort. NEI performed the Phase 1 study which identified the need for this additional work.

For the past four decades various entities have proposed physical modifications to the lower Nueces River, Nueces Bay, and Nueces Delta to moderate the high salinities in the bay and Delta, and to improve marsh habitat. One strategy option identified by the Nueces BBASC for achieving environmental flow standards within the Nueces Estuary is landform modifications that maximize the benefit of available freshwater throughout the Nueces Delta. Modeling results from Phase 1 of the study to "Explore Modifications to Nueces Bay and Nueces Delta" identified two diversion projects that improve delivery of freshwater inflow via Rincon Bayou and increase the area of inundated acreage surrounding South Lake, an area of concern that previously received limited freshwater from pumping events. The two diversion projects are the Middle Rincon Bayou Diversion to South Lake Area (Project #4) and the North Lake Diversion to South

Lake System (Project #5). Further investigation of these two projects is needed to collect hydrologic and topographic data to verify the hydrological modeling results from Phase 1 and to perform environmental and archeological assessments of the proposed sites affected by the proposed landform modifications.

The NEI team would welcome the opportunity to be involved in moving this important project toward implementation. We trust that the Board will find us uniquely qualified for this project.

If you have any questions, please feel free to contact us.

Sincerely,

Naismith Engineering, Inc.



Grant A. Jackson, P.E.

Vice President

Enclosures



**Naismith Engineering, Inc**  
ARCHITECTURE ■ ENGINEERING ■ ENVIRONMENTAL ■ SURVEYING

TWDB Contract No. 1600012013

Exhibit A, Page 4 of 33

**Explore Landform Modifications to Nueces Bay and Nueces Delta**

**Phase 2: Verification and Feasibility Assessment for Landform Modifications in the Nueces Delta**

**Statement of Qualifications  
RESPONSE TO RFQ 580-16-RFQ0018**

**Submitted by:**

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**Naismith Engineering, Inc.**  
4501 Gollihar Road  
Corpus Christi, Texas 78411  
T (361) 814-9900  
F (361) 814-4401  
[www.naismith-engineering.com](http://www.naismith-engineering.com)

**Project Principal:**

Grant Jackson, P.E.  
[gjackson@naismith-engineering.com](mailto:gjackson@naismith-engineering.com)

**Project Manager:**

James A. Dodson  
[jdodson@naismith-engineering.com](mailto:jdodson@naismith-engineering.com)

**Subconsultants**

**Dr. Ben Hodges**

[hodges@mail.utexas.edu](mailto:hodges@mail.utexas.edu)

**Mary Ellen Vega**

**Vega Environmental**  
[txvega@aol.com](mailto:txvega@aol.com)

**Dr. Jon Lohse**

[jlohse@coastalenv.com](mailto:jlohse@coastalenv.com)  
**Coastal Environments, Inc.**  
525 S. Carancahua Street  
Corpus Christi, Texas 78401  
T (361) 854-4885  
F (361) 884-1844  
<http://www.coastalenv.com>

**Submitted to:**

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David Carter  
Agency Contract Administrator  
Texas Water Development  
Board  
1700 N. Congress Avenue,  
Room 535  
Austin, Texas 78711



**March 23, 2016**

## Table of Contents

Content Item 1 – Execution of Statement of Qualifications .....	2
Content Item 2 - Company Profile Summary and History .....	3
Content Item 3 – Resumes of Key Personnel .....	5
Content Item 4 – Historically Underutilized Businesses Subcontracting Plan.....	14
Content Item 5 – Names and SSNs of Persons with at least 25% Ownership.....	15
Content Item 6 – Technical Approach .....	16
Task 1. Desktop Review of Environmental Issues and Constraints and Field Plan Preparation..	16
Task 2. Archeological Desktop Assessment.....	17
Task 3. Modeling .....	17
Task 4. Conduct Field Work: Endangered Species Survey, Nesting Bird Survey, Habitat Characterization, Wetland Delineation, Topographic/Hydrologic Survey (GIS).....	17
Task 5. Data Compilation, Planning, Designing, Agency Coordination (USACE, USFWS, TPWD, TCEQ, TGLO, CBBEP, San Patricio County).....	17
Task 6. Final Report Preparation .....	17

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**1. CONTENT ITEM 1 – EXECUTION OF STATEMENT OF QUALIFICATIONS**

Execution of Statement of Qualifications  
to the  
Request for Qualifications

Company Name: Naismith Engineering, Inc.

Address: 4501 Gollihar Rd.

Corpus Christi, Texas 78411

Phone Number: 361-814-9900

E-Mail: [jdodson@naismith-engineering.com](mailto:jdodson@naismith-engineering.com)

I, Grant Jackson, am the above-referenced company's representative and I am authorized to submit this response and sign future contract documents. By signing below, the representative certifies that if a Texas address is shown as the address, the respondent qualifies as a Texas Bidder as defined in 34 TAC Rule 20.32(68).

  
Authorized Signature

3/22/16  
Date

Vice President  
Title:

---

## CONTENT ITEM 2 - COMPANY PROFILE SUMMARY AND HISTORY

### Company Name and Address:

Naismith Engineering, Inc., 4501 Gollihar Road, Corpus Christi, Texas 78411

Phone: 361-814-9900; Watts: 800-677-2831; Facsimile: 361-814-4401

DUNs Number: 09-374-5206

### Name and Title of Company Representative:

Grant A. Jackson, P.E. – Vice President

361-814-9900

[gjackson@naismith-engineering.com](mailto:gjackson@naismith-engineering.com)

### Point of Contact:

James A. Dodson – Project Manager

361-649-1518

[jdodson@naismith-engineering.com](mailto:jdodson@naismith-engineering.com)

### Firm Background and History

Naismith Engineering, Inc. (NEI) has been in business since 1949. The firm was organized in 1949 by Conrad S. Blucher and James S. Naismith (son of James Naismith who invented the game of basketball), incorporated under the laws of the State of Texas in the name of Blucher and Naismith, Inc. The corporate name was changed to Naismith Engineers, Inc. in October, 1968 with the retirement of Mr. Blucher. The name was changed to Naismith Engineering, Inc. in August, 1989, with the retirement of Mr. James P. Naismith, who had been with the firm since 1961. The Corporation is currently led by the Board of Directors consisting of John A. Michael, P.E., David M. Underbrink, Sr., P.E, and Grant A. Jackson, P.E.

Naismith Engineering, Inc. is a full service consulting environmental, architectural, structural, and civil engineering firm serving clients in Texas with offices in Corpus Christi, Austin, and Brownsville. NEI's home office is in Corpus Christi. During our 67 years of service, NEI has earned an unrivaled reputation for the quality of professional services provided by our licensed architects, engineers, geoscientists, surveyors, wetland delineators, ecologists, and exceptional support staff. NEI is the largest architectural, engineering, and environmental firm in South Texas and operates on the principle that client satisfaction is the key to building a successful consulting operation. The project diversity in experience acquired by our staff is valuable in evaluating project planning options, approaches to implementation, and developing a keen sense of each individual client's needs.

For over sixty years NEI has garnered extensive experience working with regulatory and permitting agencies to plan, design, construct, and implement a broad range of projects throughout Texas. These agencies include the Texas Commission on Environmental Quality (TCEQ), Texas Parks and Wildlife Department (TPWD), Texas Water Development Board (TWDB), Texas Department of State Health Services (TDSHS), Railroad Commission of Texas (RRC), Texas Historic Commission (THC), Texas Department of Transportation (TxDOT), U.S. Fish and Wildlife Service (USFWS), U.S. Army Corps of Engineers (USACE), U.S. Department of Agriculture – Rural Development (USDA-RD), U.S. Environmental Protection Agency (EPA), Texas Department of Housing and Community Affairs (TDHCA), the Border Environment Cooperation Commission (BECC), and the North American Development Bank (NADBank). NEI has also partnered with local river authorities, navigation districts, municipalities, and counties to design parks, prepare restoration plans and habitat management plans, and provide scientific oversight to projects. Non-governmental or other organizations with close working relationships with NEI professionals include the Coastal Bend Bays & Estuaries Program, The Nature Conservancy, the Mission-Aransas NERR, and the International Crane Foundation.

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### CONTENT ITEM 3 – RESUMES OF KEY PERSONNEL

NEI and its partners in this proposed project have the expertise and experience to support the Nueces BBASC/NEAC in the identification, evaluation, design, and implementation of strategies to meet environmental flow standards for the Nueces Delta/Bay system. Particularly, project team members have experience with the hydrology, ecology, and management of environments within the Nueces River Basin and the Nueces Estuary. NEI performed the Phase 1 study which identified the need for this additional work.

The team consists of members with ample experience in environmental and engineering services as well as members with long and extensive history of involvement in research and management issues related to the Nueces Delta/Bay system. Team members include: James Dodson, Grant Jackson, Mary Kay Skoruppa, Jay Gardner, and Kara Thompson of NEI as well as subcontractors Dr. Ben Hodges, Mary Ellen Vega, and Dr. Jon Lohse of CEI. Mr. Dodson will be the project manager and coordinate the overall development of project deliverables; Mr. Jackson and Ms. Skoruppa will supervise the technical development of the conceptual plan, including planning level cost estimates, and the associated implementation plan; Ms. Vega, Mr. Gardner, and Ms. Thompson will conduct field site visits, surveys, wetland delineation, and assessments as well as provide permitting expertise; Dr. Lohse will provide archeological expertise, and, if required, Dr. Hodges will perform additional runs of the Delta Hydrodynamic Model (NDHM) to identify and evaluate alternate sites for the proposed diversion channels. Qualifications and relevant experience of each project team member are summarized below. Below are professional summaries of each of the key personnel for this project and resumes for Mr. Jackson, Mr. Dodson, Ms. Skoruppa, Ms. Vega, Dr. Hodges, and Dr. Lohse follow:

**Project Principal: Grant Jackson, P.E. (NEI)** has extensive experience in hydrologic and hydraulic assessments, planning, permitting, design, and construction for a wide range of storm water related projects and water control structures. He has a broad background and proven expertise in all facets of hydraulics and hydrology, basin delineation, design of water control structures, economic and environmental analysis of capital improvements, and water rights permitting of water control structures. His experience includes preparation of stormwater management plans, characterization of drainage basins and outfalls, and coordination with regulatory and resource agencies. Mr. Jackson has managed flood control and stormwater management planning projects in both San Patricio and Nueces counties, and has significant experience with Texas Water Development Board funded projects, including, in the early 1990's, several TWDB grants for Regional Wastewater Planning Studies focused on the Nueces Delta/Bay system and how to achieve greater benefit of available freshwater inflows.

**Project Manager: James Dodson (NEI)** has been deeply involved in efforts to design and implement management strategies and programs for freshwater inflows to the Nueces Delta/Bay system since 1990. He represented the City of Corpus Christi in deliberations over an estuary inflow operating plan for the Choke Canyon/Lake Corpus Christi reservoir system and his advocacy spurred the development and implementation of a consensus-based adaptive management plan for fresh water inflows to the Nueces Estuary (the "Pass-Thru Plan"), adopted in 1995. He also managed the design and implementation of the City of Corpus Christi's Allison Wastewater Effluent Diversion Project in the Nueces Delta. While with the Nueces River Authority (1998-2002), and in subsequent professional positions, Mr. Dodson continued to play an active role in issues related to fresh water inflows. Mr. Dodson served as the Vice-Chair of the Nueces BBASC and participated in the SB3 program for the Guadalupe, San Antonio,

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Mission, and Aransas Rivers and Mission, Copano, Aransas, and San Antonio BBASC. In 2010, Mr. Dodson convened a stakeholder meeting to discuss the development of a comprehensive estuary management plan for the San Antonio Bay/Guadalupe Estuary system, which led to the establishment of the San Antonio Bay Partnership (SABP) and his continued role as SABP Facilitator and Project Manager.

**Ms. Mary Kay Skoruppa (NEI)** has over 25 years of experience in south Texas as a biologist and project scientist. She was a federal biologist for 21 years at the USFWS and USGS. She has experience in migratory bird and other wildlife research, habitat characterizations, wetland permitting, environmental desktop reviews, nesting bird surveys, field biology, water quality investigations, proposal development, manuscript publications in scientific journals, and public outreach and education. She has provided technical assistance regarding natural resource issues to a broad range of entities, including private industries, federal and state agencies, U.S. Navy, Coastal Bend Bays & Estuaries Program, counties, cities, and universities.

**Mr. Jay Gardner (NEI)** has over 14 years of permitting, project management and inter-agency coordination involving infrastructure, development and utility projects primarily as a Project Manager at Naismith Engineering, Inc. He possesses a variety of experience involving U. S. Army Corps of Engineers permitting, agency coordination, project development, NEPA, dune permitting, environmental education, coastal resource monitoring and field surveys, biological surveys under the Endangered Species Act, and a personal familiarity with natural resources, and the threats to them.

**Ms. Kara Thompson (NEI)** has over 4 years' experience in biological and environmental sciences, with emphasis on permitting and regulatory compliance, wetland delineations, environmental assessment, biological monitoring and sampling, stormwater management plans, parks and recreational area development, state and federal agency coordination, and research support. She also has grant administration experience with projects funded by CBBEP, TxGLO-CMP, CIAP, TCEQ, TPWD and TWDB. Her technical skills include Microsoft Office, ArcMap, Adobe InDesign, Adobe Illustrator, Adobe Photoshop, Google Earth, and technical writing.

**Ms. Mary Ellen Vega** has over 32 years of experience in south Texas as a biologist and natural resource scientist. She was a federal biologist for 10 years at the USFWS and also served as a Natural Conservation Scientist and South Texas Wetland Program Coordinator at TPWD for 17 years. Her areas of expertise include habitat characterization studies, wetland conservation and restoration, U.S. Army Corps of Engineers permitting, NEPA documents and compliance, environmental assessments, endangered species reviews, and endangered plant and animal surveys. She has provided technical assistance regarding natural resource issues to a broad range of entities, including USFWS, EPA, NMFS, TPWD, TxGLO, TCEQ, USACE as well as local governments, stakeholders, developers, and conversation groups.

**Dr. Ben Hodges** received his Ph.D. in Civil Engineering from Stanford University in 1997. He has developed numerical modeling theory, written model codes, and applied 1D, 2D, and 3D hydrodynamic models for lakes, rivers, and estuaries. He wrote the computer code for the Fine Resolution Environmental Hydrodynamic Model ([www.cwr.utexas.edu/hodges/frehd.html](http://www.cwr.utexas.edu/hodges/frehd.html)) that was used as the basis of the Nueces Delta Hydrodynamic Model (NDHM) delivered to the CBBEP to analyze fresh/salt exchange flows through the Nueces Delta. The NDHM is being extended under the BBASC study to "Improve salinity modeling for determining inflow regimes for Nueces Delta and Bay using a 3-D hydrodynamic model." Dr. Hodges is an Associate

professor at UT Austin and Associate Director of the Center for Research in Water Resources, but is participating in this project as an independent consultant.

**Dr. Jon Lohse (CEI)** is a professional archaeologist with over 20 years of applied experience conducting and supervising archaeological work throughout Texas and adjacent regions, and also in Belize and Guatemala. He is intimately familiar with the archaeological record of Central and South Texas, and has overseen archaeological investigation at multiple large-scale, complex sites. Dr. Lohse has served as Principal Investigator for numerous cultural resources investigations, including desktop assessments, surveys, testing, and data recovery-level projects. He has strong practical experience working for private sponsors, state agencies, municipalities, and with federal entities.

**GRANT A. JACKSON, P.E.**

**EDUCATION**

B. S., Civil Engineering, Texas A & M University, 1986

**PROFESSIONAL EXPERIENCE**

Project Engineer, Vice President, NEI, Corpus Christi, Texas, Jan. 1987 - Present

Engineering Assistant to Mr. Steven E. Esmond, P.E., August 1986 - November 1986

Cooperative Education Student, Eng. Tech., Naismith Engineers, Inc., May 1984 – Jan. 1986

**PROFESSIONAL LICENSES AND ORGANIZATIONS**

Professional Engineer, State of Texas, #69644

Professional Engineer, State of Louisiana: #25289, State of Nevada: #1029, Commonwealth of Virginia: #023626, State of Minnesota, #25663

Corrective Action Project Manager, State of Texas (TNRCC), #CAPM00613

Texas Society of Professional Engineers

American Society of Civil Engineers

Air and Waste Management Association

**REPRESENTATIVE PROJECT EXPERIENCE**

- Master Flood Control Study for San Patricio County, Texas for the San Patricio County Drainage District. The work included drainage basin delineation for the entire County, significant review and modifications of hydrologic conditions within the County, computer (HEC-2) hydraulic analysis of all major drainage ways and recommended flood control and drainage improvements for various alternatives.
- Storm Water Management Master Plan for Nueces and Kleberg Counties. The work included a comprehensive Storm Water Management Master Plan for all of the unincorporated areas of Nueces and Kleberg counties. This Master Plan included complete hydrologic and hydraulic analysis for the entire study area. Recommended alternatives for improvements. The study also addressed legal requirements of a storm water master plan.
- Regional Master Storm Drainage Plan for the Live Oak Ridge Area of San Patricio County for the San Patricio County Drainage District. The work included a regional storm drainage and flood control plan, prepared for the Ingleside and Aransas Pass area. To better facilitate drainage and flood control needs prior to the anticipated development due to the new homeport facility to be located in Ingleside, Texas. This project is ongoing.
- Master Plan for Storm Drainage for the Area South of Oso Creek for the City of Corpus Christi, Texas. The Master Drainage Plan included the area south of Oso Creek including the London and Chapman Ranch areas. The project included detailed hydrologic & hydraulic analysis of the entire study area, complete drainage basin delineation and review of all existing drainage ways and facilities within the study area as well as adjacent areas of the City of Corpus Christi and unincorporated areas of Nueces County.
- Master Plan Evaluation for Shea/Flynn Parkway, Williams Drive & Richter Street, Carroll Lane Drainage Systems for the City of Corpus Christi, Texas. The work included a detailed hydrologic and hydraulic computer analysis on various existing storm water facilities located throughout Corpus Christi. This analysis included peak flow estimates for a 2-100 year storm event. The work utilized HEC-2 hydraulic backwater analysis for determination of flood water surface elevations throughout these drainage systems.

**JAMES A. DODSON**

**EDUCATION**

**M.P.A.**, The LBJ School of Public Affairs, University of Texas at Austin, 1978

**B. S.**, Marine Science, Texas A & M University – Galveston, 1975

**PROFESSIONAL EXPERIENCE**

Project Manager, Naismith Engineering, Inc., Victoria, TX, Jan. 2011 - Present

Facilitator/Project Manager, San Antonio Bay Partnership, Inc., Victoria, TX, Jan. 2010 – Present

President/Water Resources Manager, Goliad Sands, Ltd., Victoria, TX, Jan. 2003 – Jan. 2009

Water Resources Manager, J.F. Welder Heirs, Ltd., Victoria, TX, Jan. 2002 – Jan. 2005

Dep. Exec. Director, Nueces River Auth., Corpus Christi, TX, Jan. 1998 – Jan. 2002

Regional Water Director, City of Corpus Christi, Corpus Christi, TX, Jan. 1992 – Jan. 1998

Storm Water Superintendent, City of Corpus Christi, Corpus Christi, TX, Jan. 1991 – Jan. 1992

Asst. to the Director of Public Utilities, City of Corpus Christi, TX, Jan. 1990 – Jan. 1991

**REPRESENTATIVE PROJECT EXPERIENCE**

- Led environmental programs and regulatory compliance activities in three divisions of the City of Corpus Christi Public Utilities; ensured compliance with state and federal regulations; and represented City in establishing a Bay and Estuary inflow plan for the Nueces Estuary.
- Supervised Storm Water Div.; led GIS inventory of facilities; prepared Phase I NPDES permit application, Biological Assessment, and NEPA-compliant Environmental Assessment.
- Responsible for long-term water supply for seven-county area served by City of Corpus Christi, including: managing regional water planning studies, developing conservation and drought policies; amending freshwater inflow plan for Nueces Estuary.
- Responsible for Nueces River Authority programs; established Coastal Bend Div. office; managed regional water program for the 11-county region; managing an “Inter-Regional Coordination” project for all regions from the Colorado River to the Rio Grande River.
- Managed water resources associated with >83,000 acres of properties held by a limited partnership; planned strategies for sustainable use of water resources; negotiated with a public water provider; and responded to policy/regulatory issues related to water resources.
- Organized an initial meeting of San Antonio Bay system stakeholders (January 2010), resulting in the establishment of a collaborative, stakeholder-driven estuary program -- the “San Antonio Bay Partnership (SABP)”.

**REPRESENTATIVE TECHNICAL REPORTS, PUBLICATIONS & PRESENTATIONS**

- Dodson, James A., K. Dunton, E. Hill, B. Hodges, G. Jackson, B. Nicolau, M.K. Skoruppa, D. Sullivan, K. Thompson, and G. Ward, 2016. “Using Landform and Hydraulic Modifications to Increase the Benefit of Fresh Water Inflows to Nueces Bay and Nueces Delta.” Final report to TWDB, contract #1400011717.
- Dodson, James A., J. Trungale, and D. Pyne, 2015. Strategy Options for Meeting Attainment Frequencies for the Estuaries. Final report to the Texas Water Development Board for contract #1400011713. San Antonio Bay Partnership, Inc., Victoria, Texas, 73 p.
- Dodson, James A., 2006. “The Challenge of Managing Groundwater in the Gulf Coast Aquifer: Recognizing and Incorporating Divergent Value Systems Regarding Groundwater as a Resource,” Presented at the Gulf Coast Aquifer of Texas Conference, Texas A&M University – Corpus Christi, February 16, 2006. In “Aquifers of the Gulf Coast of Texas,” R. Mace, S. Davidson, E. Angle and W. Mullican, editors. Report 365, Texas Water Development Board, Austin, Texas, p. 274-285.

**MARY KAY SKORUPPA**

**EDUCATION**

B. S., Biology and Chemistry, Texas A & M University – Corpus Christi, 1989

**PROFESSIONAL EXPERIENCE**

Manager of Ecological Services/Project Scientist, NEI, Corpus Christi, Texas, 2011 - Present  
Biologist, U.S. Geological Survey, 1993 – 2011  
Biologist, U.S. Fish and Wildlife Service, 1988 – 1993

**PROFESSIONAL CERTIFICATIONS, LICENSES, AND ORGANIZATIONS**

Habitat and Living Resources Team, Coastal Bend Bays and Estuaries Program  
Texas Ornithological Society  
National Association of Environmental Professionals  
Texas Parks & Wildlife Department Scientific Research Permit - #SPR-0615-088

**REPRESENTATIVE PROJECT EXPERIENCE**

- Performed environmental assessments of coastal habitats; characterized habitats, evaluated potential endangered species impacts, delineated wetlands, consulted with USFWS, USACE, and TPWD regarding permitting, mitigation, T&E, and MBTA compliance. Prepared Pre-construction Notifications, post-construction monitoring reports, and applications for USACE.
- Led teams preparing Biological Assessment and NEPA-compliant Environmental Assessment.
- Conducted many nesting bird surveys with written recommendations relevant to MBTA.
- Evaluated oil & gas project sites throughout Texas for the potential presence of threatened and endangered species, jurisdictional wetlands, historic resources, and local permit requirements.
- Investigated the winter ecology of Redhead Ducks in Texas and Louisiana. Habitat use, diets, behavioral ecology, and body condition were evaluated during a multi-year research effort.
- Spearheaded the development of a proposal addressing the endangered Piping Plover and other high-priority shorebirds wintering on the central Texas coast.
- Investigated winter ecology of Long-billed Curlews in southern Texas. Trapped and banded curlews to track movements, evaluate site fidelity, and document body condition.
- Investigated the winter ecology of the Western Burrowing Owl, providing the first scientific research on the winter diet and ecology of this rare species. Developed laboratory methods to collect winter diet data, designed artificial burrows for wintering Burrowing Owls, trapped and banded owls to track movements, evaluate site fidelity, and document body condition.
- Conducted statistical analyses of many data sets using SAS statistical software. Published 22 manuscripts in peer-reviewed scientific journals.

**REPRESENTATIVE PUBLICATION**

- Dodson, J., K. Dunton, E. Hill, B. Hodges, G. Jackson, B. Nicolau, M.K. Skoruppa, D. Sullivan, K. Thompson, G. Ward. 2016. Using landform and hydraulic modifications to increase the benefit of fresh water inflows to Nueces Bay and Nueces Delta. Final Report to the Texas Water Development Board. TWDB Contract No. 1400011717.

**MARY ELLEN VEGA**

**EDUCATION**

**M.S.**, Biology, Corpus Christi State University,

**B. S.**, Biology, Corpus Christi State University,

**PROFESSIONAL EXPERIENCE**

Vega Environmental, Owner, 2009 – present

Texas Parks and Wildlife Department, 1992 – 2009

U.S. Fish and Wildlife Service, 1982 - 1992

**PROFESSIONAL CERTIFICATIONS, LICENSES, AND ORGANIZATIONS**

Peer review workshops for the Regional Guidebook on Hydrogeomorphic Assessments of Texas Tidal Fringe Wetlands

EPA Grass Identification Workshop

Peer Review Workshop for U.S. Army Corps of Engineers Wetland Delineation Manual

Functional Assessment of Wetlands (WET II)

NEPA Document Training

U.S. Army Corps of Engineers (Regulatory IV) Interagency Wetlands Identification and Delineation Training

U.S. Fish and Wildlife Service Habitat Evaluation Procedures (HEP)

U.S. Fish and Wildlife Natural Resource Negotiation Training

**REPRESENTATIVE PROJECT EXPERIENCE**

- Evaluated project sites throughout Texas relative to wetlands, Federal and State listed threatened, endangered, rare, and candidate species, wildlife values, riparian corridor use, nesting bird habitats, historic resources, and local storm water and floodplain permit requirements.
- Conducted environmental assessments of coastal and inland wetland environments relative to U.S. Army Corps of Engineers Section 10 and 404 permits.
- Prepared site surveillance reports, Pre-construction Notifications (PCN), and post-construction reports for USACE permitted wetland sites.
- Served as the State's South Texas Wetlands Program Coordinator
- Assisted in developing the State Wetland and Terrestrial Habitat Conservation Program
- Wrote grant proposals for habitat protection, restoration, and creation
- Designed and prepared compensatory mitigation projects for impacts to wetland and terrestrial habitats
- Served as the State representative to the South Texas Natural Resources (U.S. Navy) Partnering Team
- Served on several Federal and State inter-agency and partnering teams
- Worked daily with Federal and State resource agency biologists (the U.S. Fish and Wildlife Service, Environmental Protection Agency, National Marine Fisheries Service, Texas Parks and Wildlife Department, Texas General Land Office, Texas Commission on Environmental Quality, etc.), the U.S. Army Corps of Engineers (Galveston District, Corpus Christi Field Office, and Ft. Worth District), local governments, stakeholders, developers, and conservation groups
- Endangered Species (Section 7) Consultation, NEPA Assessments and Compliance

## **BEN R. HODGES**

### **EDUCATION**

**Ph.D.**, Civil Engineering, Stanford University, 1997

**M.S.**, Mechanical Engineering, The George Washington University, 1991

**B.S.**, Marine Engineering/Nautical Science, U.S. Merchant Marine Academy, 1984

### **PROFESSIONAL EXPERIENCE**

Consultant (sole proprietor), 2000 – Present

Responsible for: Development of analyses and reports for a variety of companies and government agencies requiring insight into advanced hydrodynamic modeling. Projects include: hydrodynamic modeling of Oso Bay for wastewater treatment plant permitting, review of Lake Travis modeling for Longhorn pipeline Environmental Assessment, Nuclear power plant cooling lake analysis, Minimum flow analysis for Lower Peace River, Florida, Review of Salton Sea modeling.

Associate Professor, University of Texas at Austin, 2006 – Present

Responsible for: Research and teaching in fluid mechanics, environmental fluid mechanics, and numerical modeling. Associate Director for Center for Research in Water Resources (since 2013).

Assistant Professor, University of Texas at Austin, 2000 – 2006

Responsible for: Research and teaching in fluid mechanics, environmental fluid mechanics, and numerical modeling.

Research Fellow, University of Western Australia, 1997 – 2000

Responsible for: Development of theory, code, and application of the Estuary and Lake Computer Model (ELCOM), which is now widely used throughout the world.

Engineer, Various Companies, 1984 – 1991

Responsible for: Engineering operations and design in shipbuilding, offshore oil exploration, and industrial control systems.

### **REPRESENTATIVE TECHNICAL REPORTS, PUBLICATIONS AND CONFERENCE PRESENTATIONS**

- Environmental Flows Recommendations Report, S. Vaughn, R. Freund, T. Arsuffi, D. Buzan, K. Dunton, B. Hodges, D. Hoeinghaus, R. Smith, L. Stewart, G. Stunz, J. Tunnell, L. Williams, (2011), Final Submission to the Environmental Flows Advisory Group, Nueces River and Corpus Christi and Baffin Bays Basin and Bay Area Stakeholders Committee, and Texas Commission on Environmental Quality, 285 pages, [http://www.tceq.state.tx.us/assets/public/permitting/watersupply/water\\_rights/eflows/20111028\\_nuecesbbest\\_recommendations.pdf](http://www.tceq.state.tx.us/assets/public/permitting/watersupply/water_rights/eflows/20111028_nuecesbbest_recommendations.pdf).
- “Hydrodynamical Modeling.” B.R. Hodges, In: Gene E. Likens, (Editor) Encyclopedia of Inland Waters. (in press) Elsevier, 2014.
- Delta Waters: Research to Support Integrated Water and Environmental Management in the Lower Mississippi River, J.L. Wescoat, X. Cai, G.M. Kondolf, B.R. Hodges, S.B. Joye, W.M. Lewis, L.A. Shabman, E. van Beek, National Academies Press, 2013, 140 pgs. [http://www.nap.edu/catalog.php?record\\_id=18484](http://www.nap.edu/catalog.php?record_id=18484)
- Review of the St Johns River Water Supply Impact Study, P.L. Brezonik, M.S. Fennessy, B.R. Hodges, J.R. Karr, M.S. Peterson, J. L. Pinckney, J.I. Restrepo, R.C. Steiner, J.C. Stevenson, National Academies Press, 2011, 160 pgs. ISBN-13: 978-0-309-22567-0

## **JON C. LOHSE**

### **EDUCATION**

**Ph.D.**, Anthropology, University of Texas at Austin, 2001  
**M.A.**, Anthropology, University of Texas at Austin, 1993  
**B. A.**, Anthropology and Religion, Trinity University, 1990

### **PROFESSIONAL EXPERIENCE**

Principal Investigator, Coastal Environments, Inc., 2013 - present  
Associate Research Professor, Department of Anthropology, Texas State University, 2010 - 2013  
Director, Center for Archaeological Studies, Texas State University, 2009 - 2013  
Research Associate, Gault School for Archaeological Research, 2009 - 2013

### **PROFESSIONAL CERTIFICATIONS, LICENSES, AND ORGANIZATIONS**

Society for American Archaeology  
Council of Texas Archeologists  
Texas Archeological Society

### **REPRESENTATIVE PROJECT EXPERIENCE**

- May, 2015 to Present, Project Archaeologist. CEI. Archaeological Data Recovery at 41AN201, TxDOT.
- April, 2015 to Present, Principal Investigator. CEI. Archeological Survey and Testing at San Felipe de Austin State Historic Site. Texas Historical Commission. Antiquities Permit No. 7218.
- September, 2014 to July, 2015, Principal Investigator. Moore Archeological Consulting, Inc. Archeological Survey and Monitoring for the Nau Center for Texas Cultural Heritage, Houston. Antiquities Permit No. 7044.
- October, 2012 to September, 2013, Principal Investigator. Center for Archaeological Studies. Archaeological Data Recovery for Sessoms Waste Water Line, 41HY161, City of San Marcos, Hays County, Texas. Antiquities Permit No. 6368.
- March, 2011 to January, 2014, Principal Investigator. Center for Archaeological Studies. Data Recovery and Monitoring for the New Ticket Kiosk and Restroom Facility at 41HY160, Aquarena Springs, Texas State University-San Marcos, Hays County, Texas. Antiquities Permit No. 5938.
- March, 2011 to November, 2011, Principal Investigator. Center for Archaeological Studies. Archeological Survey and Assessment of Two Parcels on Galveston Island State Park, Galveston County, Texas. Antiquities Permit No. 5916.
- February to August, 2011, Principal Investigator. Center for Archaeological Studies. Cultural Resources Survey of the La Lomita Development, Uvalde County, Texas. Antiquities Permit No. 5878.
- January, 2010 to January, 2011, Principal Investigator. Center for Archaeological Studies. Annual Permit for Cultural Resource Evaluations and Surveys for MOU between THC and Texas State University, Hays County, Texas. Antiquities Permit No. 5509.
- January, 2010 to June, 2011, Principal Investigator. Center for Archaeological Studies. Small Scale Archeological Testing at San Felipe de Austin State Historic Site, Austin County, Texas. Antiquities Permit No. 5479.

**CONTENT ITEM 4 – HISTORICALLY UNDERUTILIZED BUSINESSES  
SUBCONTRACTING PLAN**

The Historically Underutilized Businesses Subcontracting Plan is enclosed separately along with this SOQ.

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**CONTENT ITEM 5 – NAMES AND SSNs OF PERSONS WITH AT LEAST 25% OWNERSHIP**

NA – None of the members of Naismith Engineering, Inc. Board of Directors or persons submitting this RFQ own 25% or more of the company.

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## CONTENT ITEM 6 – TECHNICAL APPROACH

Over the years, many landform modifications have been made to the Nueces Bay/Delta system. Since the late 1970s, a number of modifications have been proposed with the specific objective of enhancing ecosystems in the Nueces Bay/Delta. A few of these have been implemented on an experimental basis. The Nueces BBASC's 2012 Work Plan for Adaptive Management, submitted to the Environmental Flows Advisory Group and the Texas Commission on Environmental Quality by the Nueces BBASC, identified that one of the strategy options for achieving the environmental flow standards within the Nueces Estuary is "Landform Modifications to Nueces Bay and Nueces Delta." In 2014, a contract was awarded to NEI, and a diverse team of experts, to undertake an evaluation of this strategy option.

Modeling results from the Phase I study identified two diversion projects that improve delivery of freshwater inflow via the Rincon Bayou and increase the area of inundated acreage around South Lake, an area of concern that previously received limited freshwater from pumping events. Those two projects are the Middle Rincon Bayou Diversion to South Lake Area (Project #4) and the North Lake Diversion to South Lake System (Project #5). Further investigation of these two projects is needed to verify the hydrological modeling results from Phase 1 and to perform an environmental assessment of the proposed sites affected by landform modification.

The evaluation of these two proposed diversion project locations within the Nueces Delta will include collecting topographic and hydrological data and documenting environmental and archeological characteristics. Team members will conduct field site visits, topographic and hydrographic surveys, wetland delineations, and environmental, ecological and archeological assessments at the project locations, and, if initial project data indicate the two proposed sites are not suitable for the development of the diversion channels, additional runs of the Nueces Delta Hydrodynamic Model (NDHM) will be made to identify and evaluate alternate sites for the proposed diversion channels.

The study will result in a final report providing detailed site information designed to support the next phases of project implementation, including additional project design, permitting and construction activities. The products produced by this study will be documented in a final report submitted to TWDB no later August 31, 2017. Descriptions of six tasks are included below and are the basis for the Technical Approach identified for this project.

**Task 1. Desktop Review of Environmental Issues and Constraints and Field Plan Preparation** -- Investigators will compile and review available data, including the following maps: National Wetlands Inventory (NWI), Federal Emergency Management Agency (FEMA), Ecological Mapping Systems of Texas (EMST), U.S. Department of Agriculture (USDA) soils, National Hydrography Dataset (NHD), topography, and Railroad Commission oil/gas well/pipeline and railway locations. Additional data to be compiled and reviewed includes Federal and State threatened and endangered species lists as well as historical aeriels. The field plan preparation will involve an access plan, and methodologies for: a wetland delineation, a nesting bird survey, an endangered species survey, a habitat characterization, and surveying.

Product: The data that will be collected will facilitate determining potential fatal flaws and any permits that may be required for each project.

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**Task 2. Archeological Desktop Assessment** -- Dr. Lohse of CEI will provide a desktop assessment of cultural resources that will characterize the study area for the presence of previously recorded archeological sites and also for the likelihood that unrecorded sites may be present. Reference resources include area soil maps and on-line databases of state-wide surveys and previously recorded sites.

Product: A written assessment of the project area that describes any and all previously recorded sites within the project areas and that assesses the likelihood that, based on soils data and other geological information, buried sites may be present.

**Task 3. Modeling** -- Dr. Hodges will work with the project team to develop topographic and hydrologic data collection procedures designed to evaluate the suitability of the proposed project sites for diversion channels, and, if the data indicates that these locations are not suitable, will determine additional modeling procedures to evaluate other potential locations (note: the actual modeling and analyses are outside the scope of this proposed study).

Product: Protocol for data collection and evaluation of site suitability for diversion channel construction and operation.

**Task 4. Conduct Field Work: Endangered Species Survey, Nesting Bird Survey, Habitat Characterization, Wetland Delineation, Topographic/Hydrologic Survey (GIS)** -- Field work conducted will include: topographic and hydrologic surveys (GIS); collection of soil samples, an evaluation of the habitat for the potential occurrence of threatened and endangered species, a nesting bird survey and evaluation of potential nesting bird habitat, habitat characterization, wetland delineation, and evaluation of potential sites for dredged material placement.

Product: The data that will be collected will facilitate the determination of which project is the most feasible. The ground-truthing of elevations and hydrography will allow Dr. Hodges to determine if the model was accurate or if it needs to be adjusted, or if additional model runs should be performed to evaluate alternate project locations.

**Task 5. Data Compilation, Planning, Designing, Agency Coordination (USACE, USFWS, TPWD, TCEQ, TGLO, CBBEP, San Patricio County)** -- Data collected during Tasks 1-4 will be compiled and interpreted relative to logistical and regulatory planning. Engineering drawings of channel cross sections and profiles will be created using results of the hydrographic survey. Preliminary coordination with agencies will be conducted to ascertain which local, state, and federal permits will likely be required for each project. Logistical issues related to accessing the sites during construction will also be determined based on landowner and regulatory restrictions.

Product: Products will include data and exhibits for the final report and the logistical issues of each project based on agency coordination.

**Task 6. Final Report Preparation** --The final report will include text, tables and exhibits documenting the results of data collected in field operations, as well as discussion of permitting requirements, a dredged material placement plan, and recommendations for best management practices to avoid or minimize impacts to protected resources. The report will address each project's feasibility for ensuring the maximum usage of freshwater pumped into Rincon Bayou with no ecological damage or negative impacts to hydrological flow.

Product: Draft project report; final project report submitted to TWDB.

**Texas Water Development Board  
REQUEST FOR QUALIFICATIONS NO. 580-16-RFQ0018  
VERIFICATION AND FEASIBILITY ASSESSMENT FOR LANDFORM  
MODIFICATIONS IN THE NUECES DELTA**

**CONTENT ITEM 4  
HISTORICALLY UNDERUTILIZED BUSINESSES  
SUBCONTRACTING PLAN**

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Please see SECTION IV, GENERAL INFORMATION, 4.1.B, Item 4

All HUB Subcontracting Plan Forms must be completed and submitted with the Response.

The forms are entitled and can be found at:

<http://comptroller.texas.gov/procurement/prog/hub/hub-subcontracting-plan/>

HUB Subcontracting Plan Form

HUB Subcontracting Plan Form, SECTION 2 continuation sheet

HUB Subcontracting Plan Good Faith Effort - Method A (Attachment A)

HUB Subcontracting Plan Good Faith Effort - Method B (Attachment B)

HUB Subcontracting Opportunity Notification Form



# HUB Subcontracting Plan (HSP)

## QUICK CHECKLIST

While this HSP Quick Checklist is being provided to merely assist you in readily identifying the sections of the HSP form that you will need to complete, it is very important that you adhere to the instructions in the HSP form and instructions provided by the contracting agency.

- If you will be awarding all of the subcontracting work you have to offer under the contract to only Texas certified HUB vendors, complete:
  - Section 1 - Respondent and Requisition Information
  - Section 2 a. - Yes, I will be subcontracting portions of the contract.
  - Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors.
  - Section 2 c. - Yes
  - Section 4 - Affirmation
  - GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.
- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you do not have a continuous contract\* in place for more than five (5) years meets or exceeds the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:
  - Section 1 - Respondent and Requisition Information
  - Section 2 a. - Yes, I will be subcontracting portions of the contract.
  - Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors.
  - Section 2 c. - No
  - Section 2 d. - Yes
  - Section 4 - Affirmation
  - GFE Method A (Attachment A) - Complete an Attachment A for each of the subcontracting opportunities you listed in Section 2 b.
- If you will be subcontracting any portion of the contract to Texas certified HUB vendors and Non-HUB vendors or only to Non-HUB vendors, and the aggregate percentage of all the subcontracting work you will be awarding to the Texas certified HUB vendors with which you do not have a continuous contract\* in place for more than five (5) years does not meet or exceed the HUB Goal the contracting agency identified in the "Agency Special Instructions/Additional Requirements", complete:
  - Section 1 - Respondent and Requisition Information
  - Section 2 a. - Yes, I will be subcontracting portions of the contract.
  - Section 2 b. - List all the portions of work you will subcontract, and indicate the percentage of the contract you expect to award to Texas certified HUB vendors and Non-HUB vendors.
  - Section 2 c. - No
  - Section 2 d. - No
  - Section 4 - Affirmation
  - GFE Method B (Attachment B) - Complete an Attachment B for each of the subcontracting opportunities you listed in Section 2 b.
- If you will not be subcontracting any portion of the contract and will be fulfilling the entire contract with your own resources (i.e., employees, supplies, materials and/or equipment, including transportation and delivery), complete:
  - Section 1 - Respondent and Requisition Information
  - Section 2 a. - No, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources.
  - Section 3 - Self Performing Justification
  - Section 4 - Affirmation

**\*Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service, to include transportation and delivery under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.



# HUB Subcontracting Plan (HSP)

In accordance with Texas Gov't Code §2161.252, the contracting agency has determined that subcontracting opportunities are probable under this contract. Therefore, all respondents, including State of Texas certified Historically Underutilized Businesses (HUBs) must complete and submit this State of Texas HUB Subcontracting Plan (HSP) with their response to the bid requisition (solicitation).

**NOTE: Responses that do not include a completed HSP shall be rejected pursuant to Texas Gov't Code §2161.252(b).**

The HUB Program promotes equal business opportunities for economically disadvantaged persons to contract with the State of Texas in accordance with the goals specified in the 2009 State of Texas Disparity Study. The statewide HUB goals defined in 34 Texas Administrative Code (TAC) §20.13 are:

- 11.2 percent for heavy construction other than building contracts,
- 21.1 percent for all building construction, including general contractors and operative builders' contracts,
- 32.9 percent for all special trade construction contracts,
- 23.7 percent for professional services contracts,
- 26.0 percent for all other services contracts, and
- 21.1 percent for commodities contracts.

**-- Agency Special Instructions/Additional Requirements --**

In accordance with 34 TAC §20.14(d)(1)(D)(iii), a respondent (prime contractor) may demonstrate good faith effort to utilize Texas certified HUBs for its subcontracting opportunities if the total value of the respondent's subcontracts with Texas certified HUBs meets or exceeds the statewide HUB goal or the agency specific HUB goal, whichever is higher. When a respondent uses this method to demonstrate good faith effort, the respondent must identify the HUBs with which it will subcontract. If using existing contracts with Texas certified HUBs to satisfy this requirement, only the aggregate percentage of the contracts expected to be subcontracted to HUBs with which the respondent **does not** have a **continuous contract\*** in place for **more than five (5) years** shall qualify for meeting the HUB goal. This limitation is designed to encourage vendor rotation as recommended by the 2009 Texas Disparity Study.

[Empty box for Agency Special Instructions/Additional Requirements]

**SECTION-1 RESPONDENT AND REQUISITION INFORMATION**

a. Respondent (Company) Name: Naismith Engineering, Inc. State of Texas VID #: \_\_\_\_\_  
 Point of Contact: Grant A. Jackson, P.E. Phone #: 361-814-9900  
 E-mail Address: gjackson@naismith-engineering.com Fax #: 361-814-4401

b. Is your company a State of Texas certified HUB?  - Yes  - No

c. Requisition #: 580-16-RFQ0018 Bid Open Date: 03/24/2016  
(mm/dd/yyyy)

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

**SECTION 2: RESPONDENT'S SUBCONTRACTING INTENTIONS**

After dividing the contract work into reasonable lots or portions to the extent consistent with prudent industry practices, and taking into consideration the scope of work to be performed under the proposed contract, including all potential subcontracting opportunities, the respondent must determine what portions of work, **including contracted staffing, goods, services, transportation and delivery will be subcontracted.** Note: In accordance with 34 TAC §20.11, a "Subcontractor" means a person who contracts with a prime contractor to work, to supply commodities, or to contribute toward completing work for a governmental entity.

a. Check the appropriate box (Yes or No) that identifies your subcontracting intentions:

- **Yes**, I will be subcontracting portions of the contract. (If **Yes**, complete Item b of this SECTION and continue to Item c of this SECTION.)
- **No**, I will not be subcontracting any portion of the contract, and I will be fulfilling the entire contract with my own resources, including employees, goods, services, transportation and delivery. (If **No**, continue to SECTION 3 and SECTION 4.)

b. List all the portions of work (subcontracting opportunities) you will subcontract. Also, based on the total value of the contract, identify the percentages of the contract you expect to award to Texas certified HUBs, and the percentage of the contract you expect to award to vendors that are not a Texas certified HUB (i.e., Non-HUB).

Item #	Subcontracting Opportunity Description	HUBs		Non-HUBs
		Percentage of the contract expected to be subcontracted to HUBs with which you do not have a continuous contract* in place for more than five (5) years.	Percentage of the contract expected to be subcontracted to HUBs with which you have a continuous contract* in place for more than five (5) years.	Percentage of the contract expected to be subcontracted to non-HUBs.
1	Archaeological Desktop Review	%	%	1.6 %
2	Hydrodynamic Modeling	%	%	8.3 %
3	Wetland Ecology	3.3 %	%	%
4		%	%	%
5		%	%	%
6		%	%	%
7		%	%	%
8		%	%	%
9		%	%	%
10		%	%	%
11		%	%	%
12		%	%	%
13		%	%	%
14		%	%	%
15		%	%	%
<b>Aggregate percentages of the contract expected to be subcontracted:</b>		3.3 %	%	9.9 %

(Note: If you have more than fifteen subcontracting opportunities, a continuation sheet is available online at <http://window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan/>.)

c. Check the appropriate box (Yes or No) that indicates whether you will be using **only** Texas certified HUBs to perform **all** of the subcontracting opportunities you listed in SECTION 2, Item b.

- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)
- **No** (If **No**, continue to Item d, of this SECTION.)

d. Check the appropriate box (Yes or No) that indicates whether the aggregate expected percentage of the contract you will subcontract **with Texas certified HUBs** with which you **do not** have a **continuous contract\*** in place with for **more than five (5) years, meets or exceeds** the HUB goal the contracting agency identified on page 1 in the "Agency Special Instructions/Additional Requirements."

- **Yes** (If **Yes**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed.)
- **No** (If **No**, continue to SECTION 4 and complete an "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed.)

**\*Continuous Contract:** Any existing written agreement (including any renewals that are exercised) between a prime contractor and a HUB vendor, where the HUB vendor provides the prime contractor with goods or service, to include transportation and delivery under the same contract for a specified period of time. The frequency the HUB vendor is utilized or paid during the term of the contract is not relevant to whether the contract is considered continuous. Two or more contracts that run concurrently or overlap one another for different periods of time are considered by CPA to be individual contracts rather than renewals or extensions to the original contract. In such situations the prime contractor and HUB vendor are entering (have entered) into "new" contracts.

Enter your company's name here: Naismith Engineering, Inc Requisition #: 580-16-RFQ0018

**SECTION-3 SELF PERFORMING JUSTIFICATION** (If you responded "No" to SECTION 2, Item a, you must complete this SECTION and continue to SECTION 4.)

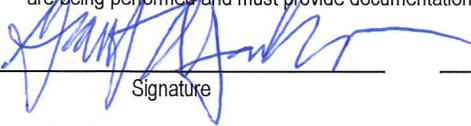
If you responded "No" to SECTION 2, Item a, in the space provided below **explain how** your company will perform the entire contract with its own employees, supplies, materials and/or equipment, to include transportation and delivery.

NA

**SECTION-4: AFFIRMATION**

As evidenced by my signature below, I affirm that I am an authorized representative of the respondent listed in SECTION 1, and that the information and supporting documentation submitted with the HSP is true and correct. Respondent understands and agrees that, if awarded any portion of the requisition:

- The respondent will provide notice as soon as practical to all the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor for the awarded contract. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity they (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.
- The respondent must submit monthly compliance reports (Prime Contractor Progress Assessment Report – PAR) to the contracting agency, verifying its compliance with the HSP, including the use of and expenditures made to its subcontractors (HUBs and Non-HUBs). (The PAR is available at <http://www.window.state.tx.us/procurement/prog/hub/hub-forms/progressassessmentrpt.xls>).
- The respondent must seek approval from the contracting agency prior to making any modifications to its HSP, including the hiring of additional or different subcontractors and the termination of a subcontractor the respondent identified in its HSP. If the HSP is modified without the contracting agency's prior approval, respondent may be subject to any and all enforcement remedies available under the contract or otherwise available by law, up to and including debarment from all state contracting.
- The respondent must, upon request, allow the contracting agency to perform on-site reviews of the company's headquarters and/or work-site where services are being performed and must provide documentation regarding staffing and other resources.


Grant A. Jackson      Vice President      03/22/2016  
 Signature      Printed Name      Title      Date  
(mm/dd/yyyy)

**Reminder:**

- If you responded "Yes" to SECTION 2, Items c or d, you must complete an "HSP Good Faith Effort - Method A (Attachment A)" for **each** of the subcontracting opportunities you listed in SECTION 2, Item b.
- If you responded "No" SECTION 2, Items c and d, you must complete an "HSP Good Faith Effort - Method B (Attachment B)" for **each** of the subcontracting opportunities you listed in SECTION 2, Item b.

# HSP Good Faith Effort - Method B (Attachment B)

Rev. 09/15

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

**IMPORTANT:** If you responded "No" to SECTION 2, Items c and d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

## SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: 1 Description: Archaeological Desktop Review

## SECTION B 2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If Yes, continue to SECTION B-4.)  
 - No / Not Applicable (If No or Not Applicable, continue to SECTION B-3 and SECTION B-4.)

## SECTION B 3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you **MUST** comply with items **a, b, c and d**, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to you submitting your bid response to the contracting agency. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/passcblsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.
- b. List the **three (3) Texas certified HUBs** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Texas Vendor Identification (VID) Number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	Texas VID (Do not enter Social Security Numbers.)	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
<u>Vega Environmental</u>	<u>1263702227300</u>	<u>03/14/2016</u>	<input checked="" type="checkbox"/> - Yes <input checked="" type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.
- d. List **two (2) trade organizations or development centers** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No

# HSP Good Faith Effort - Method B (Attachment B) Cont.

Rev. 09/15

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

## SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in **SECTION 2, Item b**, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: 1 Description: Archaeological Desktop Review

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in **SECTION B-1**. Also identify whether they are a Texas certified HUB and their Texas Vendor Identification (VID) Number or federal Employer Identification Number (EIN), the approximate dollar value of the work to be subcontracted, and the expected percentage of work to be subcontracted. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/tpasscmbsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.

Company Name	Texas certified HUB	Texas VID or federal EIN <small>Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.</small>	Approximate Dollar Amount	Expected Percentage of Contract
<u>Coastal Environments, Inc.</u>	<input type="checkbox"/> - Yes <input checked="" type="checkbox"/> - No		<u>\$ 1,000.00</u>	<u>1.6 %</u>
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in **SECTION B-1** is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

*The work requires highly specialized skills from a professional archaeologist who is experienced and has knowledge of the archaeological record of South Texas. CEI was the only vendor known to have staff with these qualifications*

**REMINDER:** As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to **all** the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract no later than ten (10) working days after the contract is awarded.

# HSP Good Faith Effort - Method B (Attachment B)

Rev. 09/15

Enter your company's name here: Nuismith Engineering, Inc. Requisition #: 580-16-RF00018

**IMPORTANT:** If you responded "No" to SECTION 2, Items c and d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

## SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: 2 Description: Hydrodynamic modeling

## SECTION B 2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If Yes, continue to SECTION B-4.)
- No / Not Applicable (If No or Not Applicable, continue to SECTION B-3 and SECTION B-4.)

## SECTION B 3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you **MUST** comply with items **a, b, c and d**, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to you submitting your bid response to the contracting agency. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/passcmlsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.
- b. List the **three (3) Texas certified HUBs** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Texas Vendor Identification (VID) Number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	Texas VID (Do not enter Social Security Numbers.)	Date Notice Sent (mm/dd/yyyy)	Did the HUB Respond?
<u>Vega Environmental</u>	<u>1263702227300</u>	<u>03/14/2016</u>	<input type="checkbox"/> - Yes <input checked="" type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to **two (2)** or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.
- d. List **two (2) trade organizations or development centers** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent (mm/dd/yyyy)	Was the Notice Accepted?
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No

# HSP Good Faith Effort - Method B (Attachment B) Cont.

Rev. 09/15

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

## SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in **SECTION 2, Item b**, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: 2 Description: Hydrodynamic Modeling

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in **SECTION B-1**. Also identify whether they are a Texas certified HUB and their Texas Vendor Identification (VID) Number or federal Employer Identification Number (EIN), the approximate dollar value of the work to be subcontracted, and the expected percentage of work to be subcontracted. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/tpasscmblsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.

Company Name	Texas certified HUB	Texas VID or federal EIN <small>Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.</small>	Approximate Dollar Amount	Expected Percentage of Contract
<u>Ben Hodges, Ph.D.</u>	<input type="checkbox"/> - Yes <input checked="" type="checkbox"/> - No		<u>\$ 5,000.00</u>	<u>8.3 %</u>
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in **SECTION B-1** is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

*The work requires an engineer with experience in hydrodynamic modeling. Dr. Hodges is not only eminently qualified, but he was also a member of the Phase I Project team, so he is very familiar with the project. No other vendor would be competitive with Dr. Hodges for this project.*

**REMINDER:** As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to **all** the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract **no later than ten (10) working days** after the contract is awarded.

# HSP Good Faith Effort - Method B (Attachment B)

Rev. 09/15

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

**IMPORTANT:** If you responded "No" to SECTION 2, Items c and d of the completed HSP form, you must submit a completed "HSP Good Faith Effort - Method B (Attachment B)" for each of the subcontracting opportunities you listed in SECTION 2, Item b of the completed HSP form. You may photo-copy this page or download the form at <http://window.state.tx.us/procurement/prog/hub/hub-forms/hub-sbcont-plan-gfe-achm-b.pdf>.

## SECTION B-1: SUBCONTRACTING OPPORTUNITY

Enter the item number and description of the subcontracting opportunity you listed in SECTION 2, Item b, of the completed HSP form for which you are completing the attachment.

Item Number: 3 Description: Wetland ecology

## SECTION B 2: MENTOR PROTÉGÉ PROGRAM

If respondent is participating as a Mentor in a State of Texas Mentor Protégé Program, submitting its Protégé (Protégé must be a State of Texas certified HUB) as a subcontractor to perform the subcontracting opportunity listed in SECTION B-1, constitutes a good faith effort to subcontract with a Texas certified HUB towards that specific portion of work.

Check the appropriate box (Yes or No) that indicates whether you will be subcontracting the portion of work you listed in SECTION B-1 to your Protégé.

- Yes (If Yes, continue to SECTION B-4.)
- No / Not Applicable (If No or Not Applicable, continue to SECTION B-3 and SECTION B-4.)

## SECTION B 3: NOTIFICATION OF SUBCONTRACTING OPPORTUNITY

When completing this section you **MUST** comply with items **a, b, c and d**, thereby demonstrating your Good Faith Effort of having notified Texas certified HUBs and trade organizations or development centers about the subcontracting opportunity you listed in SECTION B-1. Your notice should include the scope of work, information regarding the location to review plans and specifications, bonding and insurance requirements, required qualifications, and identify a contact person. When sending notice of your subcontracting opportunity, you are encouraged to use the attached HUB Subcontracting Opportunity Notice form, which is also available online at <http://www.window.state.tx.us/procurement/prog/hub/hub-subcontracting-plan>.

Retain supporting documentation (i.e., certified letter, fax, e-mail) demonstrating evidence of your good faith effort to notify the Texas certified HUBs and trade organizations or development centers. Also, be mindful that a working day is considered a normal business day of a state agency, not including weekends, federal or state holidays, or days the agency is declared closed by its executive officer. The initial day the subcontracting opportunity notice is sent/provided to the HUBs and to the trade organizations or development centers is considered to be "day zero" and does not count as one of the seven (7) working days.

- a. Provide written notification of the subcontracting opportunity you listed in SECTION B-1, to three (3) or more Texas certified HUBs. Unless the contracting agency specified a different time period, you must allow the HUBs at least seven (7) working days to respond to the notice prior to you submitting your bid response to the contracting agency. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/passcmbsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.
- b. List the **three (3) Texas certified HUBs** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the company's Texas Vendor Identification (VID) Number, the date you sent notice to that company, and indicate whether it was responsive or non-responsive to your subcontracting opportunity notice.

Company Name	Texas VID <small>(Do not enter Social Security Numbers.)</small>	Date Notice Sent <small>(mm/dd/yyyy)</small>	Did the HUB Respond?
<u>Vega Environmental</u>	<u>1263702227300</u>	<u>03/14/2016</u>	<input checked="" type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No
			<input type="checkbox"/> - Yes <input type="checkbox"/> - No

- c. Provide written notification of the subcontracting opportunity you listed in SECTION B-1 to two (2) or more trade organizations or development centers in Texas to assist in identifying potential HUBs by disseminating the subcontracting opportunity to their members/participants. Unless the contracting agency specified a different time period, you must provide your subcontracting opportunity notice to trade organizations or development centers at least seven (7) working days prior to submitting your bid response to the contracting agency. A list of trade organizations and development centers that have expressed an interest in receiving notices of subcontracting opportunities is available on the Statewide HUB Program's webpage at <http://www.window.state.tx.us/procurement/prog/hub/mwb-links-1/>.
- d. List **two (2) trade organizations or development centers** you notified regarding the subcontracting opportunity you listed in SECTION B-1. Include the date when you sent notice to it and indicate if it accepted or rejected your notice.

Trade Organizations or Development Centers	Date Notice Sent <small>(mm/dd/yyyy)</small>	Was the Notice Accepted?
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No
		<input type="checkbox"/> - Yes <input type="checkbox"/> - No

# HSP Good Faith Effort - Method B (Attachment B) Cont.

Rev. 09/15

Enter your company's name here: Naismith Engineering, Inc. Requisition #: 580-16-RFQ0018

## SECTION B-4: SUBCONTRACTOR SELECTION

Enter the item number and description of the subcontracting opportunity you listed in **SECTION 2, Item b**, of the completed HSP form for which you are completing the attachment.

a. Enter the item number and description of the subcontracting opportunity for which you are completing this Attachment B continuation page.

Item Number: 3 Description: Wetland ecology

b. List the subcontractor(s) you selected to perform the subcontracting opportunity you listed in **SECTION B-1**. Also identify whether they are a Texas certified HUB and their Texas Vendor Identification (VID) Number or federal Employer Identification Number (EIN), the approximate dollar value of the work to be subcontracted, and the expected percentage of work to be subcontracted. When searching for Texas certified HUBs and verifying their HUB status, ensure that you use the State of Texas' Centralized Master Bidders List (CMBL) - Historically Underutilized Business (HUB) Directory Search located at <http://mycpa.cpa.state.tx.us/tpasscmbsearch/index.jsp>. HUB status code "A" signifies that the company is a Texas certified HUB.

Company Name	Texas certified HUB	Texas VID or federal EIN <small>Do not enter Social Security Numbers. If you do not know their VID / EIN, leave their VID / EIN field blank.</small>	Approximate Dollar Amount	Expected Percentage of Contract
<u>Vega Environmental</u>	<input checked="" type="checkbox"/> - Yes <input type="checkbox"/> - No	<u>1263702227300</u>	<u>\$ 2,000.00</u>	<u>3.3 %</u>
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%
	<input type="checkbox"/> - Yes <input type="checkbox"/> - No		\$	%

c. If any of the subcontractors you have selected to perform the subcontracting opportunity you listed in **SECTION B-1** is **not** a Texas certified HUB, provide written justification for your selection process (attach additional page if necessary):

**REMINDER:** As specified in SECTION 4 of the completed HSP form, if you (respondent) are awarded any portion of the requisition, you are required to provide notice as soon as practical to **all** the subcontractors (HUBs and Non-HUBs) of their selection as a subcontractor. The notice must specify at a minimum the contracting agency's name and its point of contact for the contract, the contract award number, the subcontracting opportunity it (the subcontractor) will perform, the approximate dollar value of the subcontracting opportunity and the expected percentage of the total contract that the subcontracting opportunity represents. A copy of the notice required by this section must also be provided to the contracting agency's point of contact for the contract **no later than ten (10) working days** after the contract is awarded.

## **EXHIBIT B**

### **SCOPE OF WORK**

#### **Background/Introduction**

The Nueces River and Corpus Christi and Baffin Bays Basin and Bay Area Stakeholder Committee (hereafter “Nueces BBASC”) identified that one of the strategy options for achieving the environmental flow standards within the Nueces Estuary is to “Explore Landform Modifications to Nueces Bay and Nueces Delta.” In 2014, the Nueces BBASC recommended, and TWDB funded, a project to evaluate options for increasing the benefits of available freshwater inflows by implementing landform modifications in the Nueces Delta/Bay system. The study reviewed previous research and prior permits and resulted in a conceptual plan which recommended the construction of several diversion channels along the middle portion of Rincon Bayou, which conveys freshwater introduced from the Nueces River through the length of the Nueces Delta. The [project report](#) included planning level cost estimates, and implementation plans comparable to those used in the Senate Bill 1 regional water planning program. That study also recommended additional proof-of-concept studies, including field work to verify the elevation assumptions made during the hydrodynamic modeling used to evaluate the effects of installing and operating the proposed diversion features, as well as additional environmental characterizations to provide more information to help identify potential permitting requirements. This resulted in the NEAC recommending, and TWDB funding, this follow up project: “Explore Landform Modifications to Nueces Bay and Nueces Delta -- Phase 2: Verification and Feasibility Assessment.”

#### **Task 1. Desktop Review of Environmental Issues and Constraints and Field Plan Preparation --**

Investigators will compile and review available data, including the following maps: National Wetlands Inventory (NWI), Federal Emergency Management Agency (FEMA), Ecological Mapping Systems of Texas (EMST), U.S. Department of Agriculture (USDA) soils, National Hydrography Dataset (NHD), topography, and Railroad Commission oil/gas well/pipeline and railway locations. Additional data to be compiled and reviewed includes Federal and State threatened and endangered species lists as well as historical aerials. The field plan preparation will involve an access plan, and methodologies for: a wetland delineation, a nesting bird survey, an endangered species survey, a habitat characterization, and surveying.

Deliverable: No deliverable – internal documentation to be included in final report.

**Task 2. Archeological Desktop Assessment --** Dr. Lohse and Mr. Nash of Coastal Environments, Inc. will provide a desktop assessment of cultural resources that will characterize the study area for the presence of previously recorded archeological sites and also for the likelihood that unrecorded sites may be present. Reference resources include area soil maps and on-line databases of state-wide surveys and previously recorded sites.

Deliverable: A written assessment of the project area listing any and all previously recorded sites within the project areas and assessing the likelihood that buried sites may be present – assessment document will be an attachment to the final report.

**Task 3. Development of Data Collection Procedures to Evaluate Hydrologic Suitability** -- Dr. Hodges will work with the project team to develop elevation data collection procedures designed to evaluate the suitability of the sites for the two proposed diversion channels previously modeled using the Nueces Delta Hydrodynamic Model (NDHM). The actual data collection is described below in Task 4. He will also review the collected elevation data and, if this elevation data indicates that these locations are not suitable for the proposed diversion features, will define the additional modeling and analyses necessary to evaluate other potential locations (Note: Any additional modeling and analyses necessary to identify other potential project locations is outside the scope of this proposed study).

Deliverable: No deliverable – internal protocol for data collection and evaluation of site suitability for diversion channel construction and operation -- internal documentation to be included in final report.

**Task 4. Conduct Field Work:** Endangered Species Survey, Nesting Bird Survey, Habitat Characterization, Wetland Delineation, and Collection of Selected Elevation Data Points -- Field work conducted will include: collection of selected elevation data points using GPS; field characterization of soil types, evaluation of habitat for the potential occurrence of threatened and endangered species, a nesting bird survey and evaluation of potential nesting bird habitat, habitat characterization, wetland delineation of proposed impacted areas, and evaluation of potential sites for dredged material placement.

Deliverable: Data sets and field results (*i.e.*, shapefiles, survey points, and other field data) will be submitted with the final report.

**Task 5. Data Compilation, Planning, Preliminary Engineering, and Agency Coordination (USACE, USFWS, TPWD, TCEQ, TGLO, CBBEP, San Patricio County)** – Data collected during Tasks 1-4 will be compiled and interpreted relative to logistical and regulatory planning. Engineering drawings of channel cross sections and profiles will be created using elevation data. Coordination with agencies will be conducted at one Joint Evaluation Meeting to present the project alternatives and ascertain which local, state, and federal permits will likely be required for each project. Logistical issues related to accessing the sites during construction will also be determined based on landowner and regulatory restrictions.

Deliverable: Preliminary project drawings, refined cost estimates, permit requirements and construction site access plan – included in the final report.

**Task 6. Final Report Preparation** – The final report will include text, tables and exhibits documenting the results of data collected in field operations, as well as discussion of permitting requirements, a dredged material placement plan, and recommendations for best management practices to avoid or minimize impacts to protected resources. The report will address each project's feasibility for ensuring the maximum usage of freshwater pumped into Rincon Bayou with little or no negative ecological impact or negative impacts to hydrological flow.

Deliverable: Draft project report; final project report submitted to TWDB.

Deliverables:

- (1) **Monthly Progress Reports**, to be submitted no more than 30 days following each state fiscal quarter starting September 1, 2016 and ending August 31, 2017 (state fiscal quarters: September 1 - November 30, December 1 - February 28, March 1 – May 31, and June 1 - August 31). Monthly

reports will include a brief statement of the overall progress made and any problems that have been encountered during the reporting period.

- (2) Draft report that summarizes results of the study.
- (3) Final report with revisions as requested by TWDB.
- (4) Final datasets, metadata, and field results.

## EXHIBIT C

### TASK AND EXPENSE BUDGETS

#### TASK BUDGET

<b>TASK</b>	<b>DESCRIPTION</b>	<b>AMOUNT</b>
1	Desktop Review of Environmental Issues and Constraints and Field Plan Preparation	\$5,000.00
2	Archeological Desktop Assessment	\$ 1,000.00
3	Development of Data Collection Procedures to Evaluate Hydrologic Suitability	\$ 5,000.00
4	Conduct Field Work: Endangered Species Survey, Nesting Bird Survey, Habitat Characterization, Wetland Delineation, Selected Elevation Data Points	\$12,000.00
5	Data Compilation, Planning, Preliminary Engineering, and Agency Coordination	\$10,000.00
6	Final Report Preparation	\$27,000.00
<b>Total</b>		<b>\$60,000.00</b>

#### EXPENSE BUDGET

<b>CATEGORY</b>	<b>AMOUNT</b>
Salaries & Wages <sup>1</sup>	\$52,000.00
Fringe <sup>2</sup>	\$0
Travel <sup>3</sup>	\$0
Other Expenses <sup>4</sup>	\$0
Subcontract Expenses	\$8,000.00
Overhead <sup>5</sup>	\$0
Profit	\$0
<b>Total</b>	<b>\$60,000.00</b>

<sup>1</sup> Salaries and Wages is defined as the cost of salaries of engineers, draftsmen, stenographers, surveymen, clerks, laborers, etc., for time directly chargeable to this CONTRACT.

<sup>2</sup> Fringe is defined as the cost of social security contributions, unemployment, excise, and payroll taxes, workers' compensation insurance, retirement benefits, medical and insurance benefits, sick leave, vacation, and holiday pay applicable thereto.

<sup>3</sup> Travel is limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2015, Article IX, Part 5, as amended or superseded

<sup>4</sup> Other Expenses is defined to include expendable supplies, communications, reproduction, postage, and costs of public meetings directly chargeable to this CONTRACT.

<sup>5</sup> Overhead is defined as the costs incurred in maintaining a place of business and performing professional services similar to those specified in this CONTRACT.

## **EXHIBIT D**

### **GUIDELINES FOR AUTHORS SUBMITTING CONTRACT REPORTS TO THE TEXAS WATER DEVELOPMENT BOARD**

#### **1.0 Introduction**

The purpose of this document is to describe the required format of contract reports submitted to the Texas Water Development Board (TWDB). Our reason for standardizing the format of contract reports is to provide our customers a consistent, and therefore familiar, format for contract reports (which we post online for public access). Another reason for standardizing the format is so that we can more easily turn a contract report into a TWDB numbered report if we so choose. Remember that your report will not only be seen by TWDB staff, but also by any person interested in the results of your study. A professional and high quality report will reflect well on you, your employer, and the TWDB.

Available upon request, we will provide a Microsoft Word template (used to write these instructions) that gives the fonts, spacing, and other specifications for the headings and text of the report. Please follow this template as closely as possible.

#### **2.0 Formatting your report**

The TWDB format is designed for simplicity. For example, we use Times New Roman for all text. We use 12 point, single-spaced text, left justification for paragraph text, 18 point bold for first-level headings, and 14 point bold for second-level headings. Page numbers are centered at the bottom of the page. Other than page numbers, please refrain from adding content to the document header or footer. Page setup should use one-inch margins on all four sides.

#### **2.1 Text**

The best way to format your document is to use the styles described and embedded in the template document (Authors\_Template.dot) that is available on request from the TWDB. To use the Authors\_Template.dot file, open it in Word (make sure \*.dot is listed under Files of type) and save it as a .doc file. Advanced users can add the .dot file to their computers as a template. Make sure the formatting bar is on the desktop (to open, go to View→Toolbars→Formatting) or, to view all of the formatting at once, go to Format→Styles and Formatting and select Available Styles from the dropdown box at the bottom of the window. The formatting in the template document provides styles (such as font type, spacing, and indents) for each piece of your report. Each style is named to describe what it should be used for (for example, style names include Chapter Title, Body Text, Heading 1, References, and Figure or Table Caption). As you add to your report, use the dropdown list on the Formatting Toolbar or the list in the Styles and Formatting window to adjust the text to the correct style. The Authors\_Template.dot file shows and lists the specifications for each style.

##### **2.1.1 Title**

Give your report a title that gives the reader an idea of the topic of your report but is not terribly long. In addition to the general subject (for example, “Droughts”), you may include a few additional words to describe a place, methodology, or other detail focused on throughout the paper (for example, “Droughts in the High Plains of Texas” or “Evaluating the effects of drought using groundwater flow modeling”). Please capitalize only the first letter of each word except ‘minor’ words such as ‘and’ and ‘of’. Never use all caps.

Use headings to help the reader follow you through the main sections of your report and to make it easier for readers to skim through your report to find sections that might be the most interesting or useful to them. The text of the report should include an executive summary and sections outlined in 4.4 of Attachment 1. Headings for up to five levels of subdivision are provided in the template; however, we suggest not using more than three or four levels of subdivision except where absolutely necessary. Please avoid stacked headings (for example, a Heading 1 followed immediately by a Heading 2), and capitalize only the first letter of headings or words where appropriate—never use all caps.

## **2.2 Figures and photographs**

To publish professional-looking graphics, **we need all originals to be saved at 300 dots-per-inch (dpi)** and in grayscale, if possible, or in the CMYK color format if color is necessary. Excessive use of color, especially color graphics that do not also work in grayscale, will prevent us from publishing your report as a TWDB numbered report (color reproduction costs can be prohibitive). Preferred file formats for your original graphics are Adobe Illustrator (.ai), Photoshop (.psd), EPS with .tiff preview, .jpg, .png, or .tiff files. Refrain from using low resolution .jpg or .gif files. Internet images at 72 dpi are unacceptable for use in reports.

All graphics shall be submitted in two forms:

1. Inserted into the Microsoft Word document before you submit your report. Ideally, inserted graphics should be centered on the page. Format the picture to downsize to 6 inches wide if necessary. Please do not upsize a graphic in Word.
2. Saved in one of the formats listed above.

### **2.2.1 Other graphics specifications**

It is easiest to design your figures separately and add them in after the text of your report is more or less complete. Graphics should remain within the 1-inch page margins of the template (6.5 inches maximum graphic width). Be sure that the graphics (as well as tables) are numbered in the same order that they are mentioned in the text. Figures should appear embedded in the report after being called out in the text. Also, remember to include a caption for each graphic in Word, not as part of the graphic. We are not able to edit or format figure captions that are part of the figure. For figures and photographs, the caption should appear below the graphic. For tables, the caption should appear above.

### **2.2.2 Creating publication-quality graphics**

When designing a graphic, make sure that the graphic (1) emphasizes the important information and does not show unnecessary data, lines, or labels; (2) includes the needed support material for the reader to understand what you are showing; and (3) is readable (see Figures 1 and 2 for examples). Edward R. Tufte's books on presenting information (Tufte, 1983; 1990; 1997) are great references on good graphic design. Figures 1 through 3 are examples of properly formatted, easy to understand graphics. Do not include fonts that are less than 6 points.

For good-looking graphics, the resolution needs to be high enough to provide a clear image at the size you make them within the report. In general, 300 dpi will make a clear image—200 dpi is a minimum. Try to create your figures at the same size they will be in the report, as resizing them in Word greatly reduces image quality. Photographs taken with at least a two-megapixel camera (if using digital) and with good contrast will make the best images. Save the original, and then adjust color levels and size in a renamed image copy. Print a draft copy of your report to double-check that your figures and photographs have clear lines and show all the features that you want them to have.

Figures and photographs should be in grayscale. Color greatly adds to the cost of printing, so we are trying to keep it to a minimum. Also remember that your report may be photocopied, scanned, or downloaded and printed in black and white. For this reason, you should use symbols or patterns, or make sure that colors print as different shades in black and white. All interval or ratio data (data measuring continuous phenomena, with each color representing an equal interval) need to be displayed in a graded scale of a single color (Figure 3). This way your figures will be useful even as a photocopy.

If you need help with your graphics or have questions, please contact the TWDB graphics department at (512) 936-0129.

### 2.2.3 Using other people’s graphics

Figures and photographs (and tables) need to be your own unless you have written permission from the publisher that allows us to reprint them (we will need a copy of this permission for our records). Avoid using any figures or photographs taken off the Internet or from newspapers or magazines—these sources are difficult to cite, and it is often time-consuming and expensive to gain permission to reproduce them.

### 2.3 Tables

Tables should be created in Microsoft Word (see Table 1). Tables should include a minimal amount of outlining or bold font to emphasize headings, totals, or other important points. Tables should be numbered separately from figures, and captions should appear above the text of the table.

**Table 1: A sample table. Note caption above table.**

Table text heading\*

Table text	1940	1950	1960	1970	1980	1990	2000	%GW
Table text	15	441	340	926	196	522	83	97.4
Table text	64	944	626	173	356	171	516	99.9
Total	79	1385	966	1099	552	693	599	

\* A footnote should look like this using 10 point Times New Roman.

%GW = percent groundwater

Be sure to describe any abbreviations or symbols, and, unlike in this table, be sure to note the units!

### 3.0 Units

Measurements should be in English units. Metric units may be included in parentheses after the English units.

All units of geologic time should conform to the most recent geologic timescale (Gradstein and others, 2004). A summary of this timescale is available from the International Commission on Stratigraphy’s website at <http://stratigraphy.org/chus.pdf>.

### 4.0 Citations and references

It is important to give credit where credit is due. Therefore, be sure to use the appropriate citations and include references in your paper.

#### 4.1 In-text citations

Each piece of information you use in your report that comes from an outside source must be cited within the text using the author’s last name and the year of publication. If there are two authors, list the last

name of each followed by the year, and if there are more than two authors, list the last name of the first author followed by “and others” and the year. For example: the end of the Jurassic Period occurred approximately 145.5 million years ago (Gradstein and others, 2004).

## **4.2 References**

All sources that are cited within the report should be listed at the end of the paper under the heading References. The references should follow the guidelines in “Suggestions to Authors of the Reports of the United States Geological Survey” (Hansen, 1991). These are available online at [http://www.nwrc.usgs.gov/lib/lib\\_sta.html](http://www.nwrc.usgs.gov/lib/lib_sta.html) (a link to the chapter “Preparing references for Survey reports,” p. 234-241, is found here). Several examples of complete reference citations are listed at the end of these guidelines. Be sure that any citations that appear in tables or figures are included in the reference list. Also, before submitting the report, please check that all the citations in the report are included in the reference list and all references in the reference list are cited in the report. If at all possible, avoid web-based citations. These materials are often transient and therefore useless to future readers.

## **5.0 Submitting your report**

Before you submit your report, proofread it. Look for spelling and grammatical errors. Also, check to see that you have structured the headings, paragraphs, and sentences in your paper so that it is easy to follow and understand (imagine you are a reader who does not already know the information you are presenting!).

## **6.0 Conclusions**

Following the instructions above and providing accurate and readable text, tables, figures, and citations will help to make your report useful to readers. Scientists may read your report, as well as water planners, utility providers, and interested citizens. If your report successfully conveys accurate scientific information and explanations to these readers, we can help to create more informed decisions about the use, development, and management of water in the state.

## **7.0 Acknowledgments**

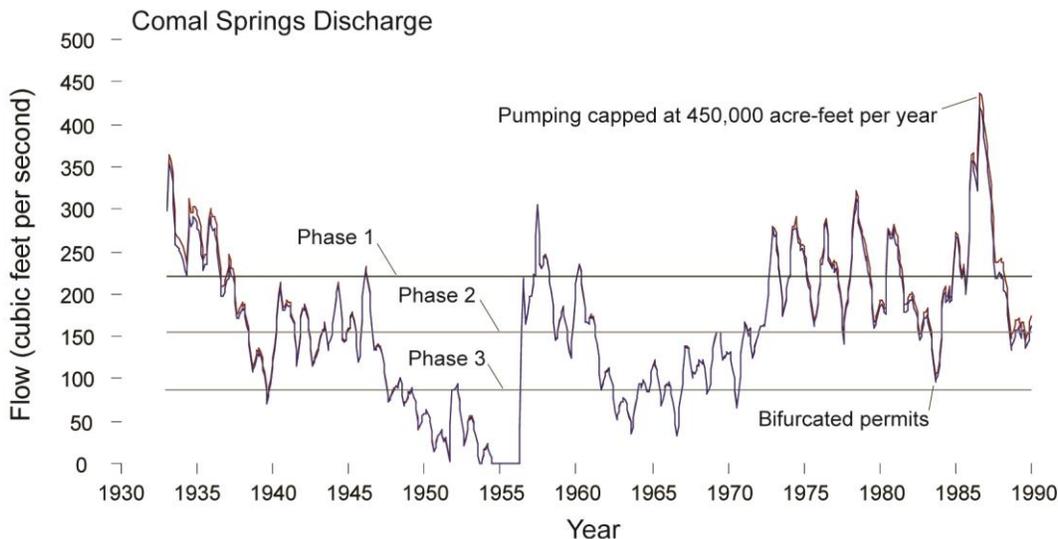
Be sure to acknowledge the people and entities that assisted you in your study and report. For example: We would like to thank the Keck Geology Consortium, the American Society of Civil Engineers, and the Texas Bar CLE for providing examples to use in developing these guidelines. In addition, we appreciate Mike Parcher for providing information on how to create publication-quality graphics, Shirley Wade for creating the data used in sample Figure 1, and Ian Jones for providing sample Figure 3.

## **8.0 References**

Gradstein, F.M., J.G. Ogg, and A.G. Smith, eds., 2005, A geologic time scale 2004: Cambridge, Cambridge University Press, 610 p.  
Hansen, W.R., ed., 1991, Suggestions to authors of the reports of the United States Geological Survey (7th ed.): Washington, D.C., U.S. Government Printing Office, 289 p.  
Tufte, E. R., 1983, The visual display of quantitative information: Cheshire, C.T., Graphics Press, 197 p.  
Tufte, E. R., 1990, Envisioning information: Cheshire, C.T., Graphics Press, 126 p.  
Tufte, E. R., 1997, Visual explanations: Cheshire, C.T., Graphics Press, 156 p.

## 9.0 Examples of references

- Arroyo, J. A., and Mullican, III, W. F., 2004, Desalination: *in* Mace, R. E., Angle, E. S., and Mullican, W. F., III, editors, *Aquifers of the Edwards Plateau: Texas Water Development Board Report 360*, p. 293-302.
- Bates, R. L., and Jackson, J. A., 1984, *Dictionary of geological terms: Anchor Press/Doubleday*, Garden City, New York, 571 p.
- Blandford, T. N., Blazer, D. J., Calhoun, K. C., Dutton, A. R., Naing, T., Reedy, R. C., and Scanlon, B. R., 2003, *Groundwater availability of the southern Ogallala aquifer in Texas and New Mexico— Numerical simulations through 2050: contract report by Daniel B. Stephens and Associates, Inc., and the Bureau of Economic Geology, The University of Texas at Austin to the Texas Water Development Board*, variably paginated.
- Fenneman, N. M., 1931, *Physiography of Western United States (1st edition): New York, McGraw-Hill*, 534 p.
- Hubert, M., 1999, Senate Bill 1—The first big bold step toward meeting Texas's future water needs: *Texas Tech Law Review*, v. 30, no. 1, p. 53-70.
- Kunianski, E. L., 1989, *Precipitation, streamflow, and baseflow in West-Central Texas, December 1974 through March 1977: U. S. Geological Survey Water-Resources Investigations Report 89-4208*, 2 sheets.
- Mace, R. E., Chowdhury, A. H., Anaya, R., and Way, S.-C., 2000, *A numerical groundwater flow model of the Upper and Middle Trinity aquifer, Hill Country area: Texas Water Development Board Open File Report 00-02*, 62 p.
- Maclay, R. W., and Land, L. F., 1988, *Simulation of flow in the Edwards aquifer, San Antonio Region, Texas, and refinements of storage and flow concepts: U. S. Geological Survey Water-Supply Paper 2336*, 48 p.
- For more examples of references, see p. 239-241 of “Suggestions to Authors of the Reports of the United States Geological Survey” at [http://www.nwrc.usgs.gov/lib/lib\\_sta.html](http://www.nwrc.usgs.gov/lib/lib_sta.html).



**Figure 1. A sample figure showing only the information needed to help the reader understand the data. Font size for figure callouts or labels should never be less than 6 point.**



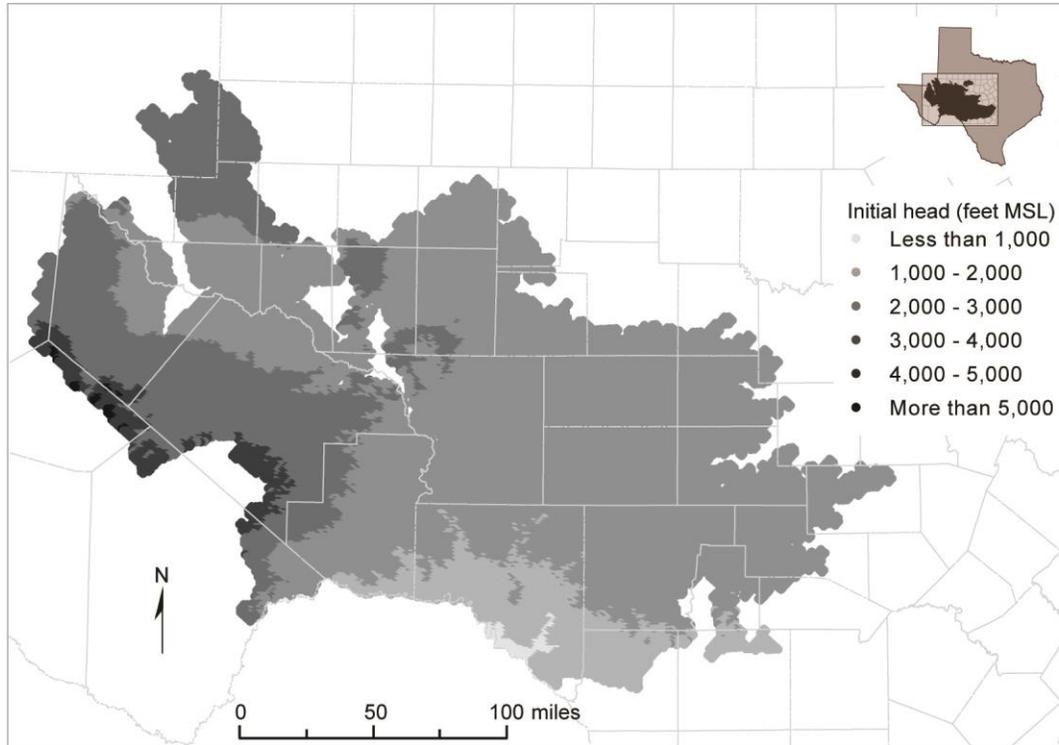


Figure 3. Initial hydraulic heads used in model simulations for layer 1. Note the use of grayscale shading to show differences.

**EXHIBIT E**  
**TWDB Guidelines for a Progress Report**

Texas Water Development Board Contractors are required by their contracts to provide Progress Reports usually with the submission of an invoice/payment request.

The progress report should contain the following standard elements:

- Date: Date the memo is sent
- To: Name and position of the reader
- From: Name and position of the writer

Subject: TWDB Contract Number and a clear phrase that focuses the reader's attention on the subject of the memo

Work Completed: *(The next section of a progress report explains what work has been done during the reporting period. Specify the dates of the reporting period and use active voice verbs to give the impression that you or you and your team have been busy) For Example:*

Task 1: Completed 3 draft chapters and all appendices. Met with sub consultants on their chapters.

Task 2: Completed sample collection throughout river reach.

Task 3: No work completed in reporting period.

Problems:

If the reader is likely to be interested in the glitches you have encountered along the way, mention the problems you have encountered and explain how you have solved them. If there are problems you have not yet been able to solve, explain your strategy for solving them and tell the reader when you think you will have them solved.

EXHIBIT F  
HUB SUBCONTRACTING PLAN PROGRESS ASSESSMENT REPORT

Use current form located at:

<http://www.window.state.tx.us/procurement/prog/hub/hub-forms/>