

STATE OF TEXAS

TWDB Commitment No. GN1001290

COUNTY OF TRAVIS

Flood Infrastructure Fund Category 1

Williamson County


This Contract, (hereinafter "CONTRACT"), between the Texas Water Development Board (hereinafter "TWDB") and the Williamson County (hereinafter "GRANTEE"), is composed of two parts, SECTION I - SPECIFIC CONDITIONS AND EXCEPTIONS TO THE STANDARD AGREEMENT and SECTION II - STANDARD AGREEMENT.

SECTION I - SPECIFIC CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT

ARTICLE I DEFINITIONS

For the purposes of this CONTRACT, the following terms or phrases are defined as follows:

1. TWDB – The Texas Water Development Board, or its designated representative
2. GRANTEE - WILLIAMSON COUNTY
3. EXECUTIVE ADMINISTRATOR – The Executive Administrator of TWDB or a designated representative
4. PARTICIPANT(S) – N/A
5. REQUIRED INTERLOCAL AGREEMENT(S) – N/A
6. TWDB APPROVAL DATE – DECEMBER 17, 2020
7. PROJECT –A regional flood planning study of the PROJECT AREA identified as PROJECT #40046, as more specifically described in EXHIBIT A, Detailed Description of the Project Service Area and EXHIBIT B, Scope of Work.
8. PROJECT AREA – The proposed project area includes nine HUC-10 watersheds in Williamson County and portions of Burnet, Lampasas, Bell, Milam, Lee and Bastrop Counties, as more specifically defined in **EXHIBIT A**, Detailed Description of the Project Service Area.
9. DEADLINE FOR CONTRACT EXECUTION – JUNE 17, 2021
10. CONTRACT INITIATION DATE – The date CONTRACT is signed by the EXECUTIVE ADMINISTRATOR as shown on the last page of this CONTRACT document.

11. FINAL REPORT - The report including deliverables as described in **EXHIBIT B**, Scope of Work, and all maps, models, and other data gathered and developed for the PROJECT as described in TWDB guidance.
12. PROJECT COMPLETION DATE – MARCH 31, 2024 
13. CONTRACT EXPIRATION DATE – MAY 31, 2024
14. TOTAL PROJECT COST – \$9,299,185
15. TWDB SHARE OF THE TOTAL PROJECT COST – The lesser of \$4,649,593 or 50 percent of the total cost.
16. LOCAL SHARE OF THE TOTAL PROJECT COST – \$4,649,592 in cash and/or in-kind contributions or 50 percent of the total costs.
17. PAYMENT REQUEST SCHEDULE – Not less than quarterly but not more frequently than monthly.
18. SURPLUS FUNDS – Those funds remaining after the GRANTEE has submitted final accounting to the EXECUTIVE ADMINISTRATOR, including interest earned.
19. PROJECT ACCOUNT – An account dedicated to the payment of PROJECT costs.
20. ELIGIBLE EXPENSES – The expenses allowed by TWDB program requirements and authorized by the TWDB in the approved Project Task and Expense Budget. Expenses incurred prior to March 12, 2020, are not ELIGIBLE EXPENSES.
21. ESCROW ACCOUNT - An account established by GRANTEE that will be used to manage the grant funds in accordance with an escrowagreement acceptable to the EXECUTIVE ADMINISTRATOR, which is attached hereto as **EXHIBIT F**, until the EXECUTIVE ADMINISTRATOR authorizes the releaseof the grant funds to the PROJECT ACCOUNT.

ARTICLE II SPECIAL CONDITIONS

1. OTHER SPECIAL CONDITIONS AND EXCEPTIONS TO STANDARD AGREEMENT OF THIS CONTRACT – None.
2. GRANTEE must work with any community within the PROJECT AREA that does not yet have floodplain management standards at least equivalent to National Flood Insurance Program minimum standards to assist that

community with adopting and enforcing floodplain management standards at least equivalent to National Flood Insurance Program minimum standards, in accordance with the Flood Intended Use Plan. This work must be reflected in the Scope of Work, **EXHIBIT B**.

SECTION II - STANDARD AGREEMENT

ARTICLE I RECITALS

Whereas, GRANTEE applied to TWDB, for financial assistance to conduct flood protection planning for the PLANNING AREA;

Whereas, GRANTEE will commit cash and/or in-kind services to pay for the LOCAL SHARE OF THE TOTAL PROJECT COST;

Whereas, GRANTEE is the entity that will act as administrator of the PROJECT and will be responsible for the execution of this CONTRACT;

Whereas, on TWDB APPROVAL DATE, TWDB approved GRANTEE's application for financial assistance for the PROJECT, consisting of reimbursement of the TWDB SHARE OF THE TOTAL PROJECT COST;

Whereas, TWDB's approval of GRANTEE's application for financial assistance included a condition that all appropriate entities within the PLANNING AREA adopt and enforce floodplain management ordinances or orders, as applicable, in accordance with the Flood Intended Use Plan before execution of this CONTRACT and this special condition has been satisfied;

Now, therefore, TWDB and GRANTEE agree as follows:

ARTICLE II PROJECT DESCRIPTION AND SERVICES TO BE PERFORMED

1. TWDB enters into this CONTRACT pursuant to Texas Water Code § 15.405; **EXHIBIT A**, Detailed Description of the Project Service Area; **EXHIBIT B**, Scope of Work; **EXHIBIT C**, Task and Expense Budgets; **EXHIBIT D**, Guidelines for Authors Submitting Contract Reports to the Texas Water Development Board; **EXHIBIT E**, TWDB Guidelines for a Progress Report; and **EXHIBIT F**, Escrow Agreement, which are incorporated herein and made a permanent part of this CONTRACT.
2. GRANTEE will conduct the PROJECT for the PLANNING AREA, as delineated and described in **EXHIBIT A**, and according to the Scope of Work contained in **EXHIBIT B**. GRANTEE will be solely responsible for all costs that exceed the Task and Expense Budgets for the PROJECT, EXHIBIT C.
3. GRANTEE must hold public meetings with the PARTICIPANTS, consultants, local

entities, TWDB, and any other interested parties to describe the PROJECT and to solicit input and comments from the affected public. Public meetings must be conducted in accordance with the Texas Open Meetings Act (in accordance with Section II, Article X, Paragraph 2H) and held as determined by GRANTEE and TWDB as detailed below.

GRANTEE must hold at least three public meetings as follows:

- A. One meeting should occur towards the beginning of the project during data collection phase, to inform people of the project, how the study outcome will benefit the community, and gather any additional project related information that people have to share including location of flood risk
- B. One meeting should be held towards the end of the project to present the key findings of the study, how the study outcome will benefit the community, communicate any identified flood risks in the study area and receive feedback.
- C. For larger projects, and projects involving alternative solution identification, an additional meeting/hearing should be scheduled to present project updates and receive feedback.

ARTICLE III CONTRACT TERM, SCHEDULE, REPORTS, AND OTHER REQUIREMENTS

- 1. GRANTEE has until the DEADLINE FOR CONTRACT EXECUTION to execute this CONTRACT and to provide acceptable evidence of any REQUIRED INTERLOCAL AGREEMENTS and evidence of GRANTEE’s ability to provide the LOCAL SHARE OF THE TOTAL PROJECT COST, if applicable, and any applicable federal share. Otherwise, TWDB SHARE OF THE TOTAL PROJECT COST will be rescinded.
- 2. This CONTRACT begins and GRANTEE begins performing its obligations hereunder on the CONTRACT INITIATION DATE and ends on the EXPIRATION DATE. Delivery of an acceptable FINAL REPORT for the PROJECT no later than the EXPIRATION DATE constitutes completion of the terms of this CONTRACT.
- 3. A progress report, including results to date, must be provided to the EXECUTIVE ADMINISTRATOR throughout the project on the same timetable as the PAYMENT REQUEST SCHEDULE. Interim reports on special topics and/or results must be provided as requested. Instructions for the progress report are shown in **EXHIBIT E**.
- 4. GRANTEE must complete a draft Report. Draft Reports must include an Executive

Summary, Table of Contents, List of Figures, List of Tables, a List of References, Conclusion including key findings and recommendations, and any other pertinent information such as the Scope of Work or other diagrams, graphics, or tables to explain the procedures and results of the PROJECT. The Draft Report also must include an electronic copy of any computer programs, maps, or models along with any manuals or sample data set(s) developed under the terms of this CONTRACT. GRANTEE must deliver one (1) Portable Document Format (PDF) copy, with searchable text of the Draft Report to the EXECUTIVE ADMINISTRATOR no later than the PROJECT COMPLETION DATE. All Draft Reports must be prepared according to **EXHIBIT D**. After a 45-day review period, the EXECUTIVE ADMINISTRATOR will return review comments to GRANTEE.

5. GRANTEE must consider incorporating comments from the EXECUTIVE ADMINISTRATOR and other commenters on all draft deliverables into the FINAL REPORT. GRANTEE must attach a copy of the EXECUTIVE ADMINISTRATOR's comments in the FINAL REPORT. GRANTEE must submit one (1), or more as requested by the TWDB project manager, physical copy (bound) and one (1) electronic copy of the entire FINAL REPORT in Portable Document Format (PDF), with searchable text, to the EXECUTIVE ADMINISTRATOR no later than the EXPIRATION DATE. GRANTEE must 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, Title 1, Part 10, Chapters 206 and 213 (related to Accessibility and Usability of State Web Sites), the digital copy of the FINAL REPORT must 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 GRANTEE will state the reasons for rejection and the steps GRANTEE needs to take to have the FINAL REPORT accepted and the retainage released. The CONTRACT may be extended if necessary and allowable, based on the state funding source, to allow time for GRANTEE to resubmit the FINAL REPORT.
6. The EXECUTIVE ADMINISTRATOR may extend the PROJECT COMPLETION DATE and the EXPIRATION DATE upon written approval. GRANTEE must notify the EXECUTIVE ADMINISTRATOR in writing within ten (10) working days prior to the PROJECT COMPLETION DATE or thirty (30) days prior to the EXPIRATION DATE that GRANTEE is requesting an extension to the respective dates.
7. If GRANTEE is a retail public utility as defined in Texas Water Code § 13.002 and GRANTEE provides potable water, then GRANTEE annually shall perform and file a water audit computing GRANTEE's most recent annual system water loss with TWDB. The first water audit shall be submitted by May 1st following the passage of one year after the effective date of this Agreement and then by May 1st every year thereafter during the term of this Agreement. GRANTEE agrees to comply with 31 TAC § 358.6 relating to water audits.

8. During the Term of this Agreement, GRANTEE must submit an annual audit of the general-purpose financial statements prepared in accordance with Generally Accepted Accounting Principles (GAAP) by a certified public accountant or licensed public accountant. Audits must be submitted to TWDB no later than 120 days after the close of GRANTEE's fiscal year.

ARTICLE IV COMPENSATION AND REIMBURSEMENT

1. TWDB agrees to compensate and reimburse GRANTEE in a total amount not to exceed TWDB SHARE OF THE TOTAL PROJECT COST for costs incurred by GRANTEE pursuant to performance of this CONTRACT. GRANTEE will contribute local funds, if applicable, in sources and amounts defined as the LOCAL SHARE OF THE TOTAL PROJECT COST. TWDB will reimburse GRANTEE for ninety-five percent (95%) of TWDB SHARE OF THE TOTAL PROJECT COST pending GRANTEE's performance, completion of the PROJECT, and written acceptance of said PROJECT by the EXECUTIVE ADMINISTRATOR, at which time TWDB will pay the retained five percent (5%) to GRANTEE.
2. TWDB will deposit the TWDB SHARE OF THE TOTAL PROJECT COST in an approved ESCROW ACCOUNT to be released to GRANTEE's PROJECT ACCOUNT at the direction of the EXECUTIVE ADMINISTRATOR.
3. GRANTEE must submit TWDB Outlay Report forms identifying:
 - A. the total amount of expenses incurred by GRANTEE for the period covered by the Outlay Report; and
 - B. identification and description of LOCAL SHARE OF THE TOTAL PROJECT COST for the billing period, if applicable, and any applicable federal or other share for the billing period; and
 - C. invoices, receipts, or other documentation satisfactory in form and in substance to TWDB sufficient to establish the requested amount as an eligible expense incurred by the GRANTEE.
4. EXECUTIVE ADMINISTRATOR will authorize the release of TWDB SHARE OF THE TOTAL PROJECT COST from the ESCROW ACCOUNT when Outlay Reports have been approved by TWDB.
5. GRANTEE must use grant funds for ELIGIBLE EXPENSES. GRANTEE must return any grant funds that are used for expenses that cannot be verified as eligible or that are ineligible. The amount of grant funds used for any ineligible or unverified expenses must be credited against verified ELIGIBLE EXPENSES. If the total amount of ELIGIBLE EXPENSES is insufficient to fully offset the amount of improperly

expended grant funds, the GRANTEE must use other funds to fully repay the TWDB. This Section II, Article IV, Item 5 survives the termination or expiration of this Agreement.

6. GRANTEE must submit payment requests and documentation for reimbursement billing according to the PAYMENT REQUEST SCHEDULE.
7. GRANTEE is responsible for any food or entertainment expenses incurred by its own organization or that of its subcontractors, outside that of eligible travel expenses authorized and approved by the State of Texas under this CONTRACT.
8. Travel expenses are limited to travel expenses authorized for state employees by the Texas Comptroller of Public Accounts at <https://fmx.cpa.texas.gov/fmx/travel/texttravel/rates/current.php>, as amended or superseded. Receipts required for lodging; as well as copies of invoices or tickets for transportation costs or, if not available, names, dates, and points of travel of individuals.
9. GRANTEE is responsible for submitting any final payment request and documentation for reimbursement, along with a request to release any retained funds, no later than 60 days following the EXPIRATION DATE. Failure to submit a timely final payment request may result in closure of the CONTRACT. After closure of the CONTRACT, any SURPLUS FUNDS will be unavailable for reimbursement.
10. GRANTEE must provide a final accounting of funds expended on the STUDY and return any SURPLUS FUNDS remaining after GRANTEE has submitted a final accounting to the EXECUTIVE ADMINISTRATOR.

ARTICLE V INTELLECTUAL PROPERTY

1. It is agreed that all works developed by GRANTEE and any subcontractors 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, material, data, drawings, studies, analyses, notes, plans, computer programs and codes, or other work products, whether final or intermediate, are the joint property of TWDB and GRANTEE. GRANTEE hereby conveys co-ownership of such works to TWDB as they are created in whole or part. If present conveyance is ineffective under applicable law, GRANTEE agrees to convey a co-ownership interest of such works to TWDB after creation and to provide written documentation of such conveyance upon request by TWDB. TWDB and GRANTEE each have full and unrestricted rights to use such works with no compensation obligation.
2. GRANTEE must include terms and conditions in all contracts or other engagement agreements with any subcontractors as are necessary to secure these rights and

protections and must require that subcontractors include similar such terms and conditions in any contracts or other engagements with their subcontractors.

3. To the extent allowed by law, GRANTEE must make all reports, drafts of reports, data, drawings, studies, analyses, models, notes, plans, computer programs and codes, or other work products, whether final or intermediate, available to the regional flood planning group applicable to the PROJECT AREA within a reasonable time after a request from the regional flood planning group.

ARTICLE VI AMENDMENT, TERMINATION, AND STOP ORDERS

1. This CONTRACT may be altered or amended by mutual written consent of the GRANTEE and the EXECUTIVE ADMINISTRATOR. This CONTRACT may be terminated by the EXECUTIVE ADMINISTRATOR at any time by written notice to GRANTEE. PROJECT schedule dates and deadlines as outlined in Section I, Article I may not be revised without written approval by TWDB and amendment to this CONTRACT. Upon receipt of such termination notice, GRANTEE must, unless the notice directs otherwise, immediately discontinue all work in connection with the performance of this CONTRACT and cancel all existing orders insofar as such orders are chargeable to this CONTRACT. GRANTEE must submit a statement showing in detail the work performed under this CONTRACT to the date of termination. TWDB will pay GRANTEE that proportion of the prescribed fee which applies to the work that is actually performed under this CONTRACT, less all payments that have been previously made. Thereupon, copies of all work accomplished under this CONTRACT must be delivered to TWDB.
2. The EXECUTIVE ADMINISTRATOR may issue a Stop Work Order to GRANTEE at any time. Upon receipt of such order, GRANTEE must discontinue all work under this CONTRACT and cancel all orders pursuant to this CONTRACT, unless the order directs otherwise. The GRANTEE may not resume work under this CONTRACT unless the EXECUTIVE ADMINISTRATOR issues a Restart Order. If the EXECUTIVE ADMINISTRATOR does not issue a Restart Order within 60 days after the Stop Work Order, this CONTRACT is terminated in accordance with the foregoing provisions.

ARTICLE VII SUBCONTRACTS

1. Each Subcontract entered into to perform required work under this CONTRACT must contain the following:
 - 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.

A clause stating the following: "Subcontractor agrees and acknowledges that tis subject to all applicable requirements of the master Contract between

GRANTEE and the Texas Water Development Board. Subcontractor adopts by reference the requirements of Article VII of the TWDB Contract for this Subcontract.”

All Subcontracts entered into to perform required work under this CONTRACT are also subject to the following requirements:

1. the Subcontract is subject to audit by the Texas State Auditor’s Office, and Subcontractor must cooperate with any request for information from the Texas State Auditor, as further described in Section II, Article X, Paragraph 1K;
2. payments under the Subcontract are contingent upon appropriation of funds by the Texas Legislature, as further described in Section II, Article X, Paragraph 1C;
3. ownership of data, materials and work papers, in any media, that is gathered, compiled, adapted for use, or generated by Subcontractor or GRANTEE will become data, materials and work owned by TWDB and Subcontractor will have no proprietary rights in such data, materials and work papers, except as further described in Section II, Article V;
4. Subcontractor must keep timely and accurate books and records of accounts according to Generally Accepted Accounting Principles;
5. Subcontractor is solely responsible for securing all required licenses and permits from local, state and federal governmental entities and solely responsible for obtaining sufficient insurance in accordance with the general standards and practices of the industry or governmental entity; and
6. Subcontractor is an independent contractor and-TWDB has no liability resulting from any failure of Subcontractor that results in breach of contract, property damage, personal injury or death.

ARTICLE VIII LICENSES, PERMIT, AND INSURANCE

1. For the purpose of this CONTRACT, GRANTEE will be considered an independent contractor (in accordance with Section II, Article X, Paragraph 2D) and therefore solely responsible for liability resulting from negligent acts or omissions. GRANTEE must obtain all necessary insurance that, in the judgment of GRANTEE and consistent with the standard practices of the industry or GRANTEE, is necessary to protect themselves, TWDB, and employees and officials of TWDB from liability arising out of this CONTRACT.
2. GRANTEE is solely and entirely responsible for procuring all appropriate licenses

and permits, which may be required by any competent authority for GRANTEE to perform the subject work.

ARTICLE IX SEVERABILITY

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) will be construed as severable from the remainder of this CONTRACT and will not affect the validity of all other provisions of this CONTRACT which will remain of full force and effect.

ARTICLE X GENERAL TERMS AND CONDITIONS

1. GENERAL TERMS

- A. **Disaster Recovery Plan.** Upon request of TWDB, GRANTEE must provide descriptions or copies of its business continuity and disaster recovery plans.
- B. **Dispute Resolution.** The dispute resolution process provided for in Texas Government Code Chapter 2260 must be used to attempt to resolve any dispute arising under this CONTRACT.
- C. **Excess Obligations Prohibited/No Debt Against the State.** This CONTRACT is subject to termination or cancellation without penalty to TWDB, either in whole or in part, subject to the availability of state funds.
- D. **False Statements.** If GRANTEE signs its application with a false statement or it is subsequently determined that GRANTEE has violated any of the representations, guarantees, warranties, certifications or affirmations included in its application, GRANTEE will be in default under the CONTRACT and TWDB may terminate or void the CONTRACT.
- E. **Force Majeure.** Neither GRANTEE nor TWDB will be liable to the other for any delay in or failure of performance of any requirement contained in this CONTRACT caused by force majeure. The existence of such causes of delay or failure will 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, fires, explosions, hurricanes, floods, failure of transportation 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.
- F. **Governing Law and Venue.** This CONTRACT is governed by and construed in accordance with the laws of the State of Texas, without regard to the conflicts of

law provisions. The venue of any suit arising under this CONTRACT is fixed in any court of competent jurisdiction in Travis County, Texas, unless the specific venue is otherwise identified in a statute which directly names or otherwise identifies its applicability to TWDB.

- G. **Applicable Laws.** In consideration of the performance of the mutual agreements set forth in this CONTRACT, the GRANTEE, by and through its designated and authorized representatives agrees to implement the PROJECT in compliance with all state and federal laws and regulations that may be applicable; Texas Water Code, Chapter 15, Subchapters F and I; 31 Texas Administrative Code Chapter 355; and TWDB Guidance.
- H. **Remedies.** TWDB has all remedies available in law or equity, including remedies available under Texas Water Code §§ 6.114 and 6.115.
- I. **Indemnification.** TO THE EXTENT ALLOWED BY LAW, GRANTEE AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE STATE OF TEXAS AND TWDB, AND/OR THEIR OFFICERS, AGENTS, EMPLOYEES, REPRESENTATIVES, CONTRACTORS, ASSIGNEES, AND/OR DESIGNEES FROM ANY AND ALL LIABILITY, ACTIONS, CLAIMS, DEMANDS, OR SUITS, AND ALL RELATED COSTS, ATTORNEY FEES, AND EXPENSES ARISING OUT OF, OR RESULTING FROM ANY ACTS OR OMISSIONS OF RESPONDENT OR ITS AGENTS, EMPLOYEES, SUBCONTRACTORS, ORDER FULFILLERS, OR SUPPLIERS OF SUBCONTRACTORS IN THE EXECUTION OR PERFORMANCE OF THE CONTRACT AND ANY PURCHASE ORDERS ISSUED UNDER THE CONTRACT. THE DEFENSE MUST BE COORDINATED BY GRANTEE WITH THE OFFICE OF THE TEXAS ATTORNEY GENERAL WHEN TEXAS STATE AGENCIES ARE NAMED DEFENDANTS IN ANY LAWSUIT, AND RESPONDENT MAY NOT AGREE TO ANY SETTLEMENT WITHOUT FIRST OBTAINING THE CONCURRENCE FROM THE OFFICE OF THE TEXAS ATTORNEY GENERAL. GRANTEE AND TWDB AGREE TO FURNISH TIMELY WRITTEN NOTICE TO EACH OTHER OF ANY SUCH CLAIM.
- J. **Public Information Act.** GRANTEE understands that TWDB will comply with the Texas Public Information Act, Texas Government Code Chapter 552, as interpreted by judicial rulings and opinions of the Attorney General of the State of Texas. Information, documentation and other material in connection with this CONTRACT may be subject to public disclosure pursuant to the Texas Public Information Act. In accordance with Texas Government Code § 2252.907, GRANTEE is required to make any information created or exchanged with the State pursuant to this CONTRACT, and not otherwise excepted from disclosure under the Texas Public Information Act, available in a format that is accessible by the public at no additional charge to the State.
- K. **State Auditor's Right to Audit.** The state auditor may conduct an audit or investigation of any entity receiving funds from the state directly under the CONTRACT or indirectly through a subcontract under the CONTRACT The

acceptance of funds directly under the CONTRACT or indirectly through a subcontract under the CONTRACT acts as acceptance of the authority of the state auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds. Under the direction of the legislative audit committee, an entity that is the subject of an audit or investigation by the state auditor must provide the state auditor with access to any information the state auditor considers relevant to the investigation or audit.

- L. **National Flood Insurance Program.** The appropriate entities within the PROJECT AREA must currently enforce and continue to enforce floodplain management standards at least equivalent to National Flood Insurance Program minimum standards and may exceed the National Flood Insurance Program minimum standards.
- M. **Investment and Collateralization of Public Funds.** Grant proceeds are public funds and, as such, these proceeds shall be held at a designated state depository institution or other properly chartered and authorized institution in accordance with the Public Funds Investment Act, Government Code, Chapter 2256, and the Public Funds Collateral Act, Government Code, Chapter 2257.

2. STANDARDS OF PERFORMANCE

- A. **Personnel.** GRANTEE must assign only qualified personnel to perform the services required under this CONTRACT. GRANTEE is responsible for ensuring that any Subcontractor utilized also assigns only qualified personnel. Qualified personnel are persons who are properly licensed to perform the work and who have sufficient knowledge, skill 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.** GRANTEE must provide the services and deliverables in accordance with applicable professional standards. GRANTEE represents and warrants that it is authorized to acquire Subcontractors with the requisite qualifications, experience, personnel and other resources to perform in the manner required by this CONTRACT.
- C. **Procurement Laws.** GRANTEE must engage in competitive procurements for work on the Project. All purchases for goods, services, or commodities made with funds provided under this CONTRACT must comply with State and local procurement and contracting laws.
- D. **Party Relationship.** Both the GRANTEE and TWDB, in the performance of this CONTRACT, 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 will not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

- E. **Proprietary and Confidential Information.** GRANTEE warrants and represents that any information that is proprietary or confidential and is received by GRANTEE from TWDB or any governmental entity will not be disclosed to third parties without the written consent of TWDB or applicable governmental entity, whose consent will not be unreasonably withheld.
- F. **Contract Administration.** TWDB will designate a project manager for this CONTRACT. The project manager will serve as the point of contact between TWDB and GRANTEE. TWDB's project manager will supervise TWDB's review of GRANTEE'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.
- G. **Nepotism.** GRANTEE must comply with Texas Government Code Chapter 573 by ensuring that no officer, employee or member of GRANTEE's governing body votes or confirm the employment of any person related within the second degree of affinity or the third degree of consanguinity to any member of the governing body or to any other officer or employee authorized to employ or supervise such person. This prohibition does not prohibit the employment of a person who has been continuously employed for a period of two years prior to the election or appointment of the officer, employee or governing body member related to such person in the prohibited degree.
- H. **Open Meetings.** GRANTEE must comply with Texas Government Code Chapter 551, which requires all regular, special or called meetings of governmental bodies to be open to the public, except as otherwise provided by law.

3. **AFFIRMATIONS AND CERTIFICATIONS**

- A. **Antitrust Affirmation.** GRANTEE represents and warrants that, in accordance with Texas Government Code § 2155.005, neither GRANTEE nor any firm, corporation, partnership, or institution represented by GRANTEE, or anyone acting for such a firm, corporation, partnership, or institution has (1) violated any provision of the Texas Free Enterprise and Antitrust Act of 1983, Chapter 15 of the Texas Business & Commerce Code, or the federal antitrust laws; or (2) communicated directly or indirectly the contents of the proposal resulting in this CONTRACT to any competitor or any other person engaged in the same line of business as GRANTEE.
- B. **Child Support Obligation Affirmation.** Under Texas Family Code § 231.006, GRANTEE certifies that the individual or business entity named in this

CONTRACT is not ineligible to receive the specified grant, loan or payment, and acknowledges that this CONTRACT may be terminated and payment may be withheld if this certification is inaccurate.

- C. **Dealings With Public Servants.** Pursuant to Texas Government Code § 2155.003, GRANTEE represents and warrants that it has not given, offered to give, nor intends to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the goods or services being supplied.
- D. **Debts and Delinquencies Affirmation.** GRANTEE agrees that any payments due under the CONTRACT will be applied towards any debt or delinquency that is owed to the State of Texas.
- E. **E-Verify Program.** GRANTEE certifies that for contracts for services, GRANTEE will utilize the U.S. Department of Homeland Security’s E-Verify system during the term of the CONTRACT to determine the eligibility of: (1) all persons employed by GRANTEE to perform duties within Texas; and (2) all persons, including Subcontractors, assigned by GRANTEE to perform work pursuant to the CONTRACT within the United States of America.
- F. **Entities that Boycott Israel.** Pursuant to Texas Government Code § 2270.002, GRANTEE certifies that either (1) it meets one of the exemption criteria under § 2270.002; or (2) it does not boycott Israel and will not boycott Israel during the term of the CONTRACT resulting from this solicitation. GRANTEE must state any facts that make it exempt from the boycott certification.
- G. **Excluded Parties.** GRANTEE certifies that it is not listed on the federal government’s terrorism watch list as described in Executive Order 13224.
- H. **Executive Head of a State Agency Affirmation.** In accordance with Texas Government Code § 669.003, relating to contracting with the executive head of a state agency, GRANTEE certifies that it is not: (1) the executive head of TWDB; (2) a person who at any time during the four years before the date of this CONTRACT was the executive head of TWDB; or (3) a person who employs a current or former executive head of TWDB.

If § 669.003 applies, the GRANTEE must provide the following information:

Name of Former Executive: _____
Name of State Agency: _____
Date of Separation from State Agency: _____
Position with Respondent: _____
Date of Employment with Respondent: _____

- I. **Financial Participation Prohibited.** Pursuant to Texas Government Code § 2155.004(a), GRANTEE certifies that neither GRANTEE nor any person or entity represented by GRANTEE has received compensation from TWDB or any agency of the State of Texas for participation in the preparation of the specifications or solicitation on which this CONTRACT is based. Under Texas Government Code § 2155.004(b), GRANTEE certifies that the individual or business entity named in this CONTRACT is not ineligible to receive the specified CONTRACT and acknowledges that this CONTRACT may be terminated and payment withheld if this certification is inaccurate.
- J. **Foreign Terrorist Organizations.** GRANTEE represents and warrants that it is not engaged in business with Iran, Sudan, or a foreign terrorist organization, as prohibited by Texas Government Code § 2252.152.
- K. **Human Trafficking Prohibition.** Under Texas Government Code § 2155.0061, GRANTEE certifies that the GRANTEE is not ineligible to receive the specified CONTRACT and acknowledges that this CONTRACT may be terminated and payment withheld if this certification is inaccurate.
- L. **Lobbying Prohibition.** GRANTEE represents and warrants that TWDB's payments to GRANTEE and GRANTEE's receipt of appropriated or other funds under the CONTRACT are not prohibited by Texas Government Code §§ 556.005 or 556.0055, related to the prohibition on payment of state funds to a lobbyist or for lobbying activities.
- M. **No Conflict of Interest.** GRANTEE represents and warrants that the provision of goods and services or other performance under this CONTRACT will not constitute an actual or potential conflict of interest or reasonably create an appearance of impropriety. GRANTEE also represents and warrants that, during the term of this CONTRACT, GRANTEE will immediately notify TWDB, in writing, of any existing or potential conflict of interest relative to the performance of the CONTRACT.
- N. **Prior Disaster Relief Declaration.** Texas Government Code §§ 2155.006 and 2261.053 prohibit state agencies from accepting a response or awarding a contract that includes proposed financial participation by a person who, in the past five years, has been convicted of violating a federal law or assessed a penalty in connection with a contract involving relief for Hurricane Rita, Hurricane Katrina, or any other disaster, as defined by Texas Government Code § 418.004, occurring after September 24, 2005. Under Texas Government Code §§ 2155.006 and 2261.053, GRANTEE certifies that the individual or business entity named in this CONTRACT is not ineligible to receive the specified CONTRACT and acknowledges that this CONTRACT may be terminated and payment withheld if this certification is inaccurate.
- O. **Suspension and Debarment.** GRANTEE certifies that it and its principals are

not suspended or debarred from doing business with the state or federal government as listed on the State of Texas Debarred Vendor List maintained by the Texas Comptroller of Public Accounts and the System for Award Management (SAM) maintained by the General Services Administration.

ARTICLE XI CORRESPONDENCE

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

For **TWDB:**

Contract Issues:

Texas Water Development Board
Attention: Flood Planning
P.O. Box 13231
Austin, Texas 78711-3231
Email: floodplanning@twdb.texas.gov

Payment Request Submission:

Texas Water Development Board
Attention: Outlays and Escrows
P.O. Box 13231
Austin, Texas 78711-3231
Email: outlays@twdb.texas.gov

Physical Address:

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

For the **GRANTEE:**

Contract Issues:

Name David Zwernemann
CompanyAddress
Williamson County Engineer's
Office
3151 SE Inner Loop
City State ZIP
Georgetown, TX 78626
Email:
dzwernemann@wilco.org

Payment Request Submission:

Name Tomika Lynce
CompanyAddress
Williamson County Auditor's
Office
710 S. Main Street, Suite 301
City State ZIP
Georgetown, TX 78626
Email: tomika.lynce@wilco.org

Physical Address:Building

Name Williamson County
Courthouse
Street Address
405 Martin Luther King St
City State ZIP
Georgetown, TX 78626-4901

IN WITNESS WHEREOF, the parties have caused this CONTRACT to be duly executed in multiple counterparts, each of which shall be deemed to be an original.

WILLIAMSON COUNTY

By: _____

Name: Bill Gravell Jr.

Title: County Judge

Date: _____

TEXAS WATER DEVELOPMENT BOARD

By: _____

Name: Jeff Walker

Title: Executive Administrator

Date: _____

EXHIBIT A

DETAILED DESCRIPTION OF THE PROJECT SERVICE AREA

Project Service Area

The proposed Project area includes nine HUC-10 watersheds in Williamson County and portions of Burnet, Lampasas, Bell, Milam, Lee and Bastrop Counties.

Detailed hydraulic analysis is proposed throughout Williamson County to identify where flood risk is greatest and to evaluate structural and non-structural mitigation strategies. Beyond the limits of Williamson County, available leverage data will be used to: conduct hydrology to evaluate the impacts (peak flow and volumes) of Atlas 14 rainfall; assess potential upstream or downstream adverse impacts of mitigation strategies; identify opportunities for regional detention; and evaluate watershed-wide floodplain management strategies and regulations.

a. Identification of Watersheds

The proposed Williamson County Atlas 14 Floodplain Mapping project includes planning and hydrologic analysis of nine HUC-10 watersheds in accordance with the Category 1 requirement to “conduct planning of entire watersheds no smaller than Hydrologic Unit Code 10-digit (HUC-10)”. As presented in Table 1 below, these HUC-10 watersheds fall within three major drainage basins including the Salado Creek basin in the north, the San Gabriel basin in the central portion of the county, and the Brushy Creek basin in the south.

Table 1. Study Watersheds

Basin / HUC-10 Watershed Number	HUC-10 Watershed Name
Salado Creek Basin	
1207020305	Stillhouse Hollow Lake-Lampasas River
1207020304	Salado Creek
1207020401	Upper Little River
San Gabriel Basin	
1207020501	North Fork San Gabriel River
1207020502	South Fork San Gabriel River
1207020503	Berry Creek
1207020505	Granger Lake-San Gabriel River
Brushy Creek Basin	
1207020504	Turkey Creek-Brushy Creek
1207010201	Middle Yegua Creek

b. Map of Watersheds

Beyond the limits of Williamson County, the Brazos River Authority Flood Protection Study hydrologic models will be leveraged, to conduct an updated Atlas 14 hydrologic analysis of each HUC-10-watershed listed in Table 1 to a hydrologic confluence near the Milam County boundary. Milam County will conduct hydrologic analysis within their jurisdiction. The Texas Water Development Board Lampasas Base Level Engineering study will be leveraged to complete the assessment of Williamson County in the Stillhouse Hollow Lake-Lampasas River (#1207020305) HUC-10 watershed. These watersheds are displayed below in Figure 1.

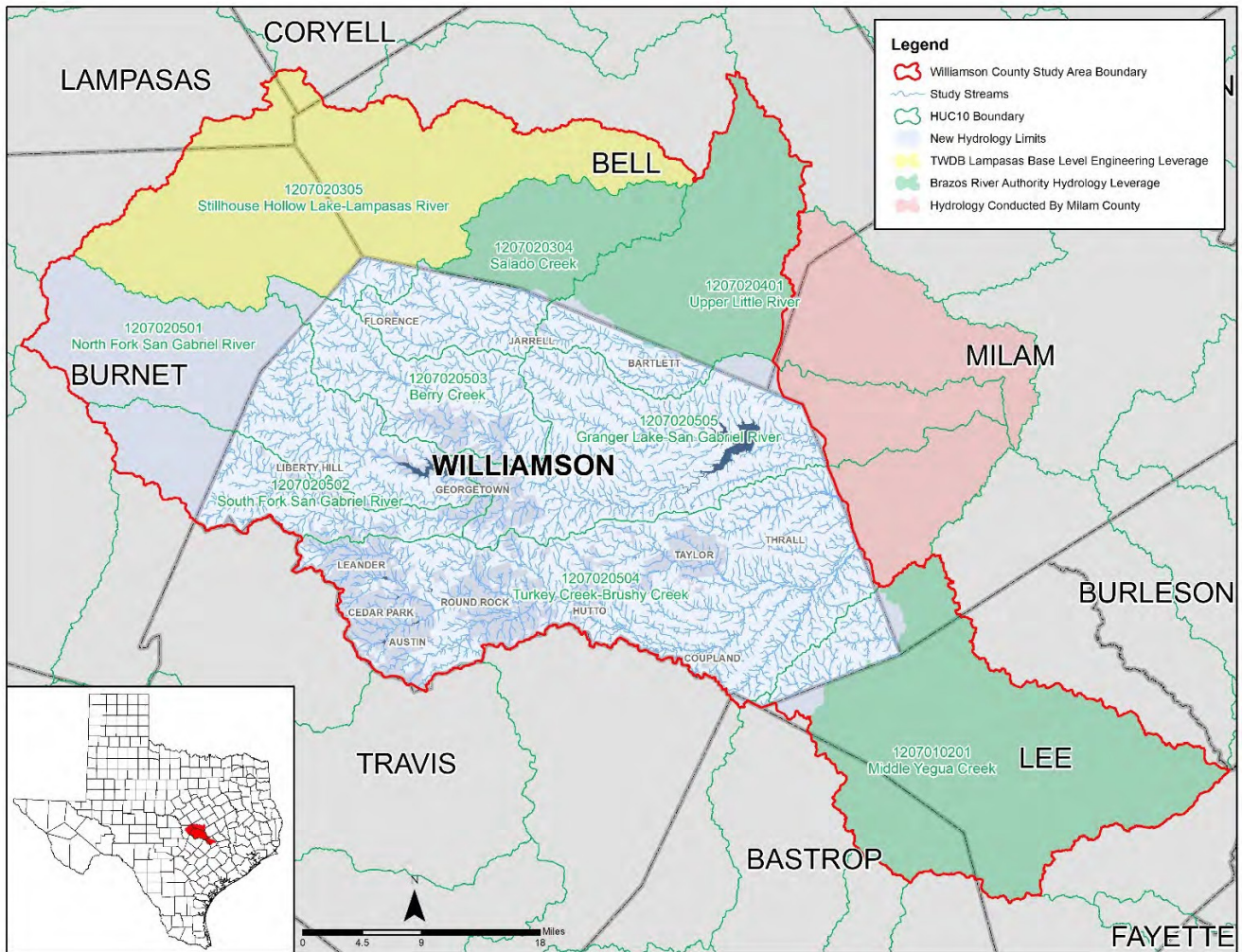


Figure 1. Study Watersheds

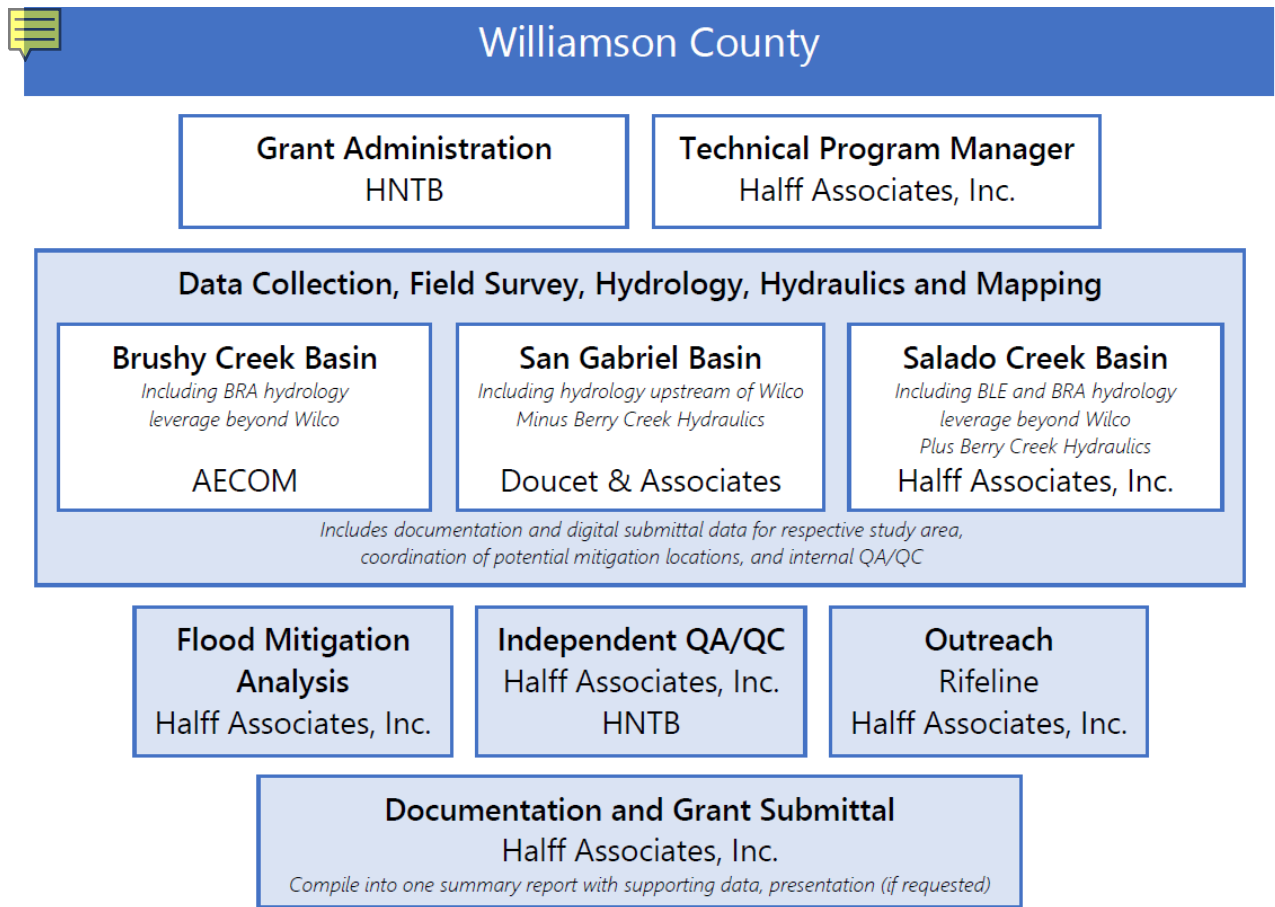
Exhibit A Pages 4 of 7 - 7 of 7
Intentionally Omitted

EXHIBIT B
SCOPE OF WORK

Williamson County
 Atlas 14 Floodplain Mapping Project
Detailed Scope of Work

a. Project Organization

Williamson County is the overall project owner and manager of the project. The County will utilize HNTB as an extension of their staff to manage and administer the grant. The County and HNTB will designate Halff Associates, Inc. as the Technical Program Manager (TPM). To ensure a consistent product, the TPM will provide technical guidance and establish technical standards for terrain, field survey and hydrologic & hydraulic modeling methodologies. The organizational chart below provides an overview of the proposed Williamson County Atlas 14 Floodplain Management project implantation.



b. Watershed Flood Protection Needs

The proposed planning of the Williamson County Atlas 14 Floodplain Mapping project will enhance the County's Hazard Mitigation Plan and Interjurisdictional Community Flood Protection Plan by establishing a modernized standard to assess flood risk. This new standard will ensure the technical data is: consistent (one topographic source, uniform methodology utilizing best available science such as the latest LiDAR, land cover data, NOAA Atlas 14 rainfall data, etc.), and defensible (validated with historical data) throughout the watersheds that drain across the County. The project ultimate goals are to identify, quantify and communicate flood risks, as well as, establish regional strategies to promote a flood resilient Williamson County. Given the scale of the planning area, flood mitigation alternatives will be assessed based on risk and need to minimize the public's vulnerability to flooding and preserve equity across the County. Potential projects will also be evaluated for a range of storm frequencies to ensure no adverse impacts to downstream and adjacent properties. To ensure communication and transparency, the project will include a series of stakeholder meetings as well as public meetings to gather input throughout the duration of the project.

c. Scope of Work

1) Project Management/Coordination

This effort includes both internal project management as well as coordination with Williamson County and other participating stakeholders. Specific tasks include:

- a) Perform general project management activities including task leadership, progress reporting, QA/QC management, and invoicing.
- b) Plan and facilitate six (6) coordination meetings with project stakeholders (Williamson County, TWDB, local, and state partners) throughout the duration of the project.
- c) Plan and facilitate three (3) public meetings including a project kickoff, a flood risk review meeting at the conclusion of the modeling and mapping tasks, and a mitigation meeting at the conclusion of the mitigation analysis task.

2) Data Collection

This effort includes a variety of tasks aimed at gathering information relevant to the modeling and planning process. Specific tasks include:

- a) Terrain Development – Obtain the most current LiDAR (2015 & 2017) information and develop seamless Digital Elevation Models (DEMs) for modeling and mapping tasks.
- b) General Collection – Compile available GIS datasets, current land use maps, soil maps, cultural resource maps and materials, environmental resource maps and materials, digital orthophotography, prior planning studies (including Letters of Map Revision), and other information relevant to the Williamson County watersheds. Where appropriate, incorporate planning studies and survey data from other participating stakeholders.
- c) Historical Information – Obtain historical gage data from the USGS, NWS, UBCWCID, and BRA. Where available, obtain historical flood records such as high-water marks, flood extents, and photos.
- d) Field Survey – Obtain field survey of dams, bridges/culverts, and channel cross-sections as necessary for new detailed study reaches consistent with FEMA standards. Field survey shall be obtained using a Texas State Plane coordinate system (US foot), NAD 83, 2011 adjustment and horizontal datum, NAVD 88 vertical datum, and geoid consistent with the LiDAR controls. Existing detail study data will be leveraged to optimize survey efforts.
- e) Field Reconnaissance – Conduct field reconnaissance of the approximate study streams within Williamson County at roadway crossing within the public right-of-way. Site visits will consist of gathering field measurements, structure dimensions, site conditions, photos, and a field sketch.

3) Hydrologic Analysis

This effort includes updating prior planning studies and developing new hydrologic analysis to reflect current conditions in the county. Detailed hydrology will be conducted within 1,380 square miles in Williamson County supplemented with leverage hydrology totaling 1,110 square miles beyond the county boundary. Milam County will be conducting hydrology on 320 square miles to complete hydrologic analysis on the remainder of the HUC-10 watersheds. Williamson County hydrologic analysis shall include evaluation of the existing condition 2-, 10-, 25-, 50-, 100-, and 500-year frequency events using the latest version of HEC-HMS. Specific tasks include:

- a) Update of Prior Studies – Update prior hydrologic analysis using Atlas 14 rainfall data, current

LiDAR, and land use conditions.

- i) Revise drainage area boundaries based on new terrain information and sub-divide basins where appropriate for analysis of study streams.
 - ii) Convert the prior hydrologic models to the latest version of HEC-HMS.
 - iii) Update hydrologic loss parameters, hydrograph transform, and timing parameters to achieve consistent results with the prior studies.
 - iv) Update storage tables, routing curves, and compute revised discharges. The Modified-Puls storage-discharge relationships will be based off the updated hydraulic models in Task 4.
- b) Conduct New Analysis – Consistent with the analysis and updates noted above, conduct new hydrologic analysis using Atlas 14 rainfall data, current LiDAR, and land use conditions.
 - c) Model Calibration / Validation – Verify modeling results using historical events, gage statistics, prior studies, and/or adjacent watershed studies. Two historical events will be evaluated for comparison of runoff along detailed study reaches with gage information.

4) Hydraulic Analysis and Mapping

This effort includes updating prior studies and developing new hydraulic analysis to reflect current conditions in the county. Hydraulic analysis shall include evaluation of the existing land use condition 2-, 10-, 25-, 50-, 100-, and 500-year frequency events using the latest version of HEC-RAS. All hydraulic analysis will include one-dimensional (1D), steady-state modeling. Specific tasks include:

- a) Update of Prior Studies – Update prior hydraulic analysis using Atlas 14 rainfall discharge, current LiDAR, and land use conditions. Hydraulic updates shall be performed on 925 detailed study stream miles.
 - i) Extend and adjust hydraulic cross-section alignment where appropriate for analysis of study streams and incorporation of Atlas 14 rainfall data.
 - ii) Convert the prior hydraulic models to the latest version of HEC-RAS.
 - iii) Update hydraulic parameters such as bank station placement, Manning's roughness coefficients, ineffective and blocked flow areas to achieve consistent results with the prior studies.
 - iv) Incorporate structure data using field survey and field measurements as appropriate.
 - v) Compute revised water surface elevation profiles using peak frequency discharges computed in Task 3.
- b) Conduct New Analysis – Consistent with the analysis and updates noted above, conduct new hydraulic analysis using Atlas 14 discharges, current LiDAR, and land use conditions. New hydraulic analysis shall be performed on 625 detailed study stream miles and 1,350 limited detail study stream miles.
- c) Model Calibration / Validation – Verify modeling results using historical events, gage elevations, and/or prior studies. Two historical events will be evaluated for comparison of high-water marks and flood extents along detailed study reaches with historical records.
- d) Floodplain Mapping and Depth Grids – Generate floodplain mapping, water surface elevation and depth grids for the existing condition 100-year and 500-year frequency events along detailed study reaches. Generate floodplain mapping, water surface elevation and depth grids for the existing condition 100-year frequency event along limited detail study reaches.

5) Conceptual Flood Mitigation Analysis

This effort includes identification and evaluation of areas susceptible to flooding as evidenced by the updated flood risk information developed in Tasks 3 and 4. Evaluate up to six (6) conceptual flood mitigation alternatives to reduce identified flooding impacts. Specific tasks include:

- a) Mitigation Measures – Consider independent and combined structural alternatives (such as detention, channel improvements, and crossing improvements) and non-structural alternatives (such as regulations, property buyouts, and structure elevations). Flood mitigation alternatives will be evaluated based upon the technical feasibility, resulting risk reduction benefits, cost effectiveness, and the viability that the proposed alternative can be implemented.
- b) Mitigation Analysis – Develop hydrologic and hydraulic modeling to support each of the six (6) conceptual alternatives. The mitigation analysis will seek a 100-year level of service; however, a lower level of service may be provided where the 100-year solution is cost-prohibitive. Results of the modeling and associated flood risk information will be utilized to quantify project benefits.
- c) Cost Estimates – Develop conceptual probable cost estimates (including probable construction and materials, installation, permitting, and engineering estimates) for the six (6) conceptual alternatives being analyzed. Typically, TxDOT unit costs are used for alternative cost estimates. A cost contingency will be applied to represent the uncertainty in the cost estimate at this level of analysis.
- d) Benefit Cost Analysis – Perform a simplified Benefit Cost Analysis (BCA) to evaluate the existing damages as well as the value of the proposed benefits of the recommended solution. This simplified BCA analysis provides a comparison of the existing condition hydrology and hydraulic data compared to the proposed condition hydrology and hydraulic data. This data, combined with specific data regarding people, property, and infrastructure at risk, results in an estimated savings (avoided damages) from implementation of the recommended solution.

6) Quality Assurance / Quality Control

This effort includes a multi-level approach to ensure all project goals are met, critical/technical issues are addressed, and high-quality products are delivered in a timely fashion. Independent QA/QC will be conducted in offices other than where production work is performed.

7) Documentation and Deliverables

This effort includes preparation of a Flood Protection Planning report that provides a thorough explanation of all procedures, assumptions, special considerations, comparisons, checkpoints, independent QA/QC, and planning results. Specific tasks include:

- a) Documentation – Prepare report documenting the study approach, data collection, field survey and reconnaissance, hydrologic analysis, hydraulic analysis, modeling results, mitigation analysis and mitigation recommendations including conceptual estimates of probable cost, and benefit-cost analysis.
- b) Digital Deliverables – Prepare supporting information including computation spreadsheets, hydrologic models, hydraulic models, and supporting geospatial data. A digital copy of the report will also be provided.

EXHIBIT C

TASK AND EXPENSE BUDGETS

TASK BUDGET

TASK	DESCRIPTION	AMOUNT
1	General Management	\$450,000
2	Data Collection	\$1,568,750
3	Hydrologic Analysis	\$1,556,213
4	Hydraulic Analysis and Mapping	\$4,617,864
5	Conceptual Flood Mitigation Analysis	\$270,000
6	Quality Assurance / Quality Control	\$786,358
7	Documentation and Deliverables	\$50,000
TOTAL		\$9,299,185

EXPENSE BUDGET

CATEGORY	AMOUNT
Salaries & Wages ¹	\$0.00
Fringe ²	\$0.00
Travel ³	\$0.00
Other Expenses ⁴	\$0.00
Subcontract Services	\$9,299,185.00
Overhead ⁵	\$0.00
Profit	\$0.00
TOTAL	\$9,299,185.00

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

² 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.

³ Travel is limited to the maximum amounts authorized for state employees by the General Appropriations Act, Tex. Leg. Regular Session, 2017, Article IX, Part 5, as amended or superseded

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

⁵ 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 complete. Graphics should remain within the 1-inch page margins of the template (6 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. Cole Nussbaumer Knaflic’s website *Storytelling With Data* also provides freely accessible resources for designing infographics and data visualizations (<http://www.storytellingwithdata.com/blog>). 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 and is the minimum resolution for all situations. 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 Use of Figures, Graphics, and Photographs

Figures, photographs, and tables need to be your own unless you have written permission from the creator, publisher, or copyright holder that allows us to reprint them (we will need a copy of this permission for copyrighted material our records). All figures and photographs must cite the source in the legend, and include whether the material is in the public domain, used under a Creative Commons License (<https://creativecommons.org/licenses/>), or used with permission of the copyright holder. Use caution when using any figures or photographs taken off the Internet or from newspapers or magazines—these sources may be subject to copyright and must be cited properly and/or used by permission.

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 Cambria.

%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.

4.0 Citations and references

It is important to give credit for all external sources referenced in your report. 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 <https://pubs.usgs.gov/unnumbered/7000088> (a link to the chapter "Preparing references for Survey reports," p. 234-241, is found at <https://pubs.usgs.gov/unnumbered/7000088/sta28.pdf>). 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.

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 <https://pubs.usgs.gov/unnumbered/7000088/sta28.pdf>.

10.0 Examples of figures

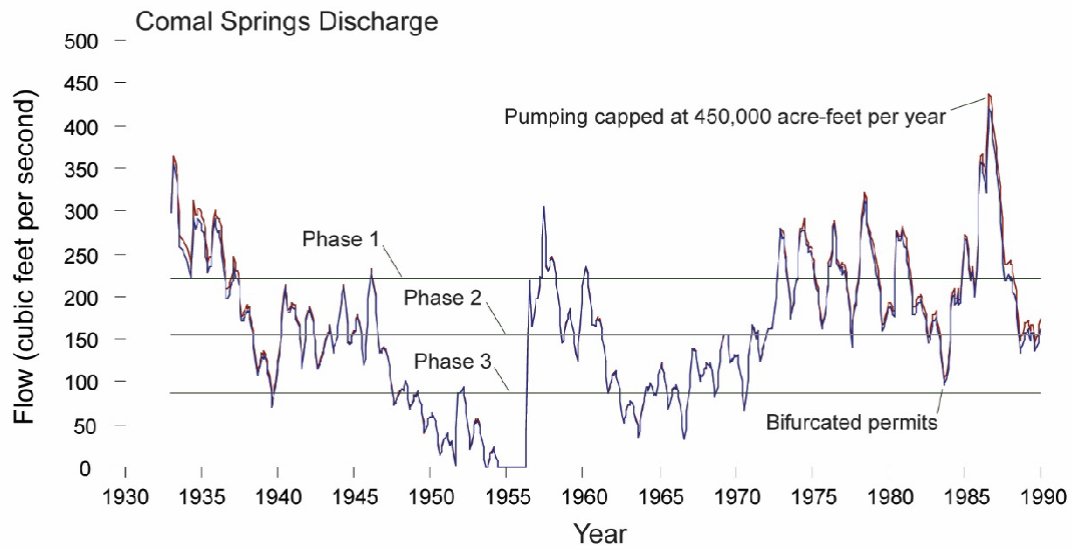


Figure 1. A sample figure showing only the information needed to help the reader understand the data. Font size for figure callouts or labels should never be less than 6 point.



Figure 2. A sample subject area map, giving the reader enough information to understand the location being discussed in this conference. For map figures, be sure to include a north arrow to orient the reader, a scale, and, if needed, a submap that places the figure in greater geographic context. Be sure that text is readable and that any citations listed on the figure or in the figure caption are included in the reference list. Font size should never be less than 6 point.

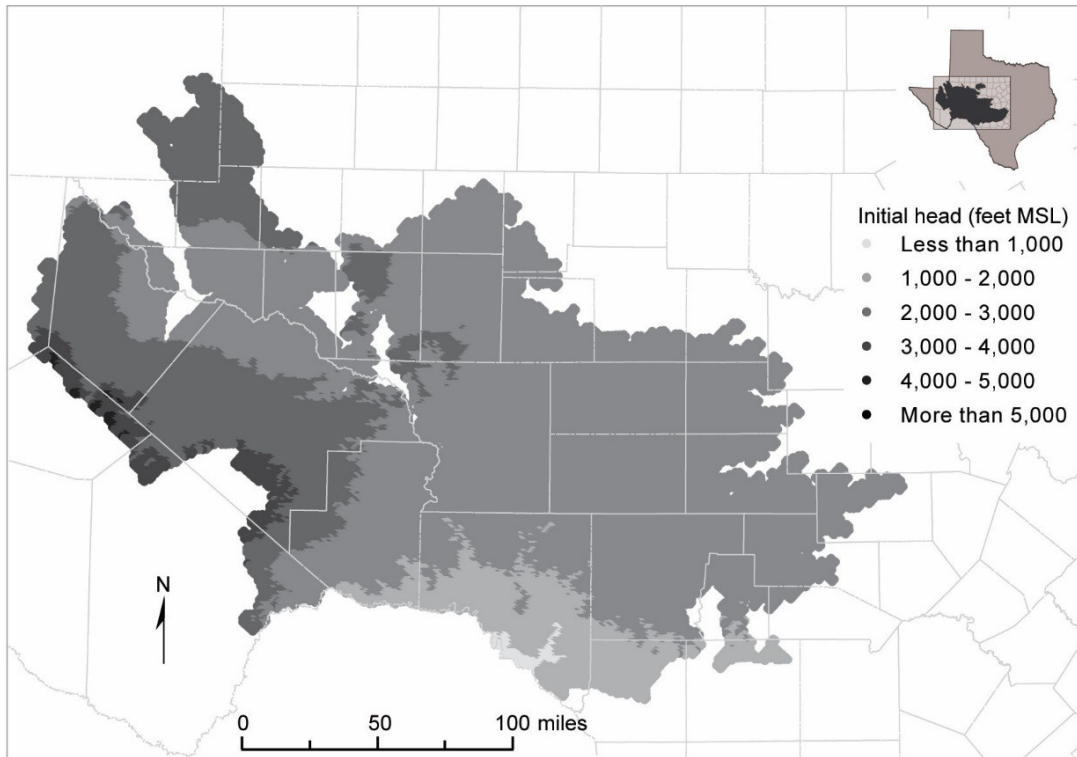


Figure 3. Initial hydraulic heads used in model simulations for layer 1. Note the use of grayscale shading to show differences.

EXHIBIT E

TWDB GUIDELINES FOR A PROGRESS REPORT

Texas Water Development Board Borrowers/Grantees are required by their contracts to provide Progress Reports according to the ***“Payment Request Schedule”***.

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 the period that this report covers (i.e. Progress Report 09/01/18 – 11/30/18)

In-Kind Services: (please include a value and description of any in-kind services provided during the reporting period)

Work Completed: (Explain what work has been done during the reporting period by Scope of Work task. Specify the dates of the reporting period and use active voice verbs to report progress made. Please include any updates on special conditions.)

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

ESCROW AGREEMENT