

**Funding Agreement for Edwards Aquifer Water Quality Protection from Catastrophic and Low to Mid-level Effects of Discharge of Hazardous and Polluting Materials from Contaminated Water Runoff during Emergency Response under the Proposition 1 Edwards Aquifer Protection Projects within Urbanized Areas of Bexar County's Recharge and Contributing Zones Program**

This Proposition 1 Edwards Aquifer Protection Projects within Urbanized Areas of Bexar County's Recharge and Contributing Zones Funding Agreement (Funding Agreement) is between the City of San Antonio (City), the San Antonio River Authority (River Authority), and Texas A&M University - San Antonio (Funding Recipient), collectively the "Parties." The Parties understand and agree that this Funding Agreement documents the roles and responsibilities of each of the Parties in the City's Proposition 1 Edwards Aquifer Protection Projects within Urbanized Areas of Bexar County's Recharge and Contributing Zones Program (Program). The Parties agree to comply with the terms of this Funding Agreement (Agreement).

**Background**

Proposition 1, the Edwards Aquifer Protection Venue Project, authorizes the City to continue the voter-approved watershed and preservation project initiated in 2000 and continued in 2005, 2010, and 2015. A 1/8 cent sales tax is projected to collect \$100 million for this project. Of the \$100 million projected to be collected pursuant to the 2015 authorization, \$90 million will continue to be used toward the purchase of conservation easements and acquisition of real estate interests over the sensitive recharge and contributing zones of the aquifer. The remaining \$10 million is dedicated for Program-funded projects that will protect and improve Edwards Aquifer water quality. The Funding Recipient's Edwards Aquifer Water Quality Protection from Catastrophic and Low to Mid-Level Effects of Discharge of Hazardous and Polluting Materials from Contaminated Water Runoff during Emergency Response (Project) has received both Conservation Advisory Board (CAB) and City of San Antonio City Council (Council) funding approval and is the subject of this Agreement. The primary Project goals are

- to develop and implement a training program for first responders on use of emergency response best management practices (BMPs) to reduce or eliminate discharge of runoff containing hazardous or polluting materials into the Edwards Aquifer such as would occur during accidental fire and fire caused by arson, flood, high wind, and explosion;
- to develop BMPs that will provide specific guidance during emergency response in the Edwards Aquifer recharge zone;
- to develop a Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies that will allow first responders to access site-specific aquifer protection guidance and information ranging from sensitive areas and abandoned wells to locations with on-site storage, production, and/or transport of hazardous materials in the Edwards recharge zone;
- to develop and deploy a protocol to assess the effectiveness of emergency response BMPs in real time and/or post-event; and

- to develop various materials to educate first responders and the public about the need for aquifer protection against hazardous materials during emergency response.

## **Funding**

The City has authorized and will contribute \$218,937 for the Project. The funding amount is documented by the detailed information in Exhibit A. All Parties acknowledge and agree that \$218,937 is the full amount authorized by this Funding Agreement, and no additional funds will be claimed by the Funding Recipient, unless this amount is modified through an amendment executed by all of the Parties.

In addition, within the term of this Agreement Funding Recipient will secure and provide to Project \$78,000 in in-kind contributions and \$10,000 in -annual management funding. Funding Recipient is solely responsible for managing and ensuring the tasks and deliverables associated with the in-kind contributions are delivered during the term of this Funding Agreement.

## **Agreement Term**

This Agreement shall be effective as of September 1, 2019 (the “Effective Date”) through and including February 28, 2021 (the “Term”). The Parties may extend this Agreement in writing for a mutually agreeable period.

## **Limitations (as applicable)**

In developing the spatial database, the Project will review non-digital records of potential locations of sensitive karst features, field verification where appropriate, and integration into an interoperable database. This activity is expected to be resource intensive, but quantifying the amount of effort needed to complete this activity is difficult without actually conducting the activity. An objective of this activity is to leverage work by using as much existing information as possible, but problems with interoperability of data and other unknown factors may require additional technical expertise that Edwards Aquifer Authority (“EAA”) staff may not have. Addressing incompatibility of data in large data sets can be very resource intensive and may require specialized expertise. In advance of conducting this Project it is difficult to determine if problems with interoperability of data will be encountered. Resources to assist EAA staff in this work are available through Texas A&M University – San Antonio and The Texas A&M University System, through the Texas A&M Engineering Experiment Station’s Texas Center for Applied Technology, with a data management center located in San Antonio. To address the possibility of needing specialized technical support or additional time for this activity, \$50,000 in contingency funding (“Contingency Funds”) has been included in the budget. Prior to Funding Recipient’s performance of any activities that may qualify for use of Contingency Funds, Funding Recipient will be required to submit a written request to City and River Authority detailing the activity or activities to be performed, the associated budget and anticipated completion date for City and River Authority’s review and approval.

If any of the above limiting factors occur, the Parties will work together in good faith and where reasonable to revise the scope of the Project so as to achieve the Project objectives. If the revised scope is not approved by all Parties, any of the Parties may elect to terminate this

Agreement, and the Parties shall have no further obligations to each other, except for those rights and obligations accrued by the Parties prior to the termination.

While there is no limiting factor on developing emergency response BMPs through this Project, the nature of emergency response and safety considerations may limit the ability of first responders to effectively employ any one or all BMPs in any particular circumstance. This is why proposed review and continual update of BMPs may improve usability and effectiveness over time and beyond the term of the Project and Agreement.

It is also noted that, while not a limitation that can be addressed by the Project, in connection with development of the assessment protocol, evaluations or studies on effectiveness of the Emergency Response BMPs and their use by First Responders will be greatly influenced by safety considerations, site-specific factors, and time of event, as well as by the unpredictable nature of emergency response location, timing, geographic location, topography, proximity of stormwater features and EA sensitive areas, hazardous materials present, nature of emergency response, and inherent hazards. This is the nature of emergencies of the type contemplated by this Project and is not under the control of Project partners, emergency responders, or the City.

#### **City of San Antonio Acknowledges and Agrees**

1. Funding Recipient will be responsible for the work to be conducted under the Project.
2. River Authority will serve as project manager and administrator of the Project.
3. Funding Recipient will submit invoices for payment directly to City, with a copy sent concurrently to River Authority, to the following addresses:

**City of San Antonio**  
Phillip Covington  
Special Projects Manager  
Edwards Aquifer Protection Program  
Parks and Recreation Department  
PO Box 839966  
San Antonio, Texas 78283  
(210) 207-3003  
[phillip.covington@sanantonio.gov](mailto:phillip.covington@sanantonio.gov)

**San Antonio River Authority**  
Karen Bishop  
Senior Supervisor  
Stormwater Unit  
Environmental Sciences Department  
100 E. Guenther  
San Antonio, Texas 78204  
(210) 302-3642  
[kbishop@sara-tx.org](mailto:kbishop@sara-tx.org)

4. Funding shall be paid directly to the Funding Recipient after River Authority verification of performance of work in accordance with the payment schedule attached as Exhibit B and the completion of Funding Recipient's Project schedule, attached as Exhibit C. Payment to Funding Recipient will be made to the following address:

Sharon Otholt  
Texas A&M University - San Antonio  
One University Way  
San Antonio, Texas 78224

### **River Authority Acknowledges and Agrees**

1. River Authority will serve as project manager and administrator of the Project.
2. River Authority is responsible to the City to ensure quality and timely implementation of Project components and future monitoring of aquifer protection and improvement projects funded through the Project.
3. Upon receipt of invoices and appropriate supporting documentation, River Authority will coordinate payment to the Funding Recipient in a timely manner per Exhibits A and B.

### **Funding Recipient Acknowledges and Agrees**

1. Work to be conducted by Funding Recipient will be under the direct supervision of Principal Investigator, Rudolph Rosen, Ph.D, an employee of the Funding Recipient. If, for any reason, Dr. Rosen is unable to continue to serve as Principal Investigator and a successor acceptable to all Parties is not available, any Party may terminate this Agreement.
2. Beginning the month after the Project's commencement, Funding Recipient shall provide status reports to the City through the River Authority on the first Friday monthly. Said status report shall include Project activity toward milestones in the prior month and shall note any changes to the schedule of deliverables, if any, including any delays in meeting major tasks, milestones, and deliverables.
3. Funding Recipient shall use reasonable efforts to produce the following deliverables:
  - a. Training curriculum, program, and educational materials for 12-hour, 2-day course for first responders on reducing or eliminating emergency runoff into the Edwards Aquifer recharge zone
  - b. Delivery of said training course to first responders
  - c. Emergency response BMPs tailored for the Edwards Aquifer recharge zone
  - d. Evaluation of course curriculum, BMPs, and associated materials
  - e. Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies providing essential guidance and site-specific information about recharge zone locations
  - f. Emergency response BMP effectiveness assessment protocol
  - g. Integration of assessment protocol into regular EAA sampling/monitoring programs
  - h. Video providing first responders and public easily understood information about sensitivity of karst recharge zone and need for aquifer protection against hazardous materials during emergency response
  - i. General outreach and education materials
  - j. Workshop on emergency response experiences and practices in karst watersheds
  - k. Workshop proceedings report.
  - l. Final Project report
4. Funding Recipient shall use reasonable efforts to answer the following questions:

- a. What are the new BMPs and/or new applications of existing BMPs necessary to protect the Edwards Aquifer recharge zone from emergency response-generated runoff?
  - b. What additional equipment is needed by first responders to control emergency response contaminated water runoff in the Edwards recharge zone?
  - c. What are the results of this Project in protecting the Edwards Aquifer recharge zone from catastrophic and low- to mid-level pollution due to fire response?
  - d. What similar programs and projects for emergency responders are underway in karst aquifers elsewhere?
5. The Project's major milestones are completion of the following:
  - a. Training curriculum and program for First Responders on use of Emergency Response BMPs, instruction on use of containment tools and supplies, and how to use the Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies. Provide training to an initial group of First Responders.
  - b. Best Management Practices (Emergency Response BMPs for Karst Aquifers) for use in the EA recharge zone that will provide specific guidance to and be the basis for training of First Responders on actions that may be taken and on use of measures to protect the aquifer from contamination from emergency response water runoff.
  - c. "Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies."
  - d. Emergency Response BMP effectiveness assessment protocol and integration of assessment of aquifer contaminant/pollution reduction due to employment of emergency response BMPs into regular EAA sampling/monitoring programs for aquifer water quality.
  - e. Workshop/conference on emergency response experiences and practices in karst watersheds to validate, improve, maintain, and share activities of the Project among water quality protection professionals.
6. Funding Recipient shall use reasonable efforts to complete the following major tasks:
  - a. Training curriculum, program, and educational materials for First Responders on use of Emergency Response BMPs, instruction on use of containment tools and supplies, and how to use the Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies.
    - i. Task 1: Develop 12-hr, 2-day course curriculum and program materials, including BMPs under 6(b) below.
    - ii. Task 2: Conduct First Responder training for Stations 1 and 34.
    - iii. Task 3: Seek and support efforts to secure additional funding to continue training for up to five additional years upon Project completion.
    - iv. Task 4: Update and adjust course curriculum as needed for future trainings based on initial application if possible within the term of this Agreement.

- b. Best Management Practices (Emergency Response BMPs for Karst Aquifers) for use in the EA recharge zone to provide specific guidance basis for training of First Responders on actions that may be taken and on use of measures to protect the aquifer from contamination from emergency response water runoff.
  - i. Task 5: Review existing BMPs for fire response.
  - ii. Task 6: Adapt or develop BMPs to address the unique nature of protecting water quality in urbanized Bexar County.
  - iii. Task 7: Provide SAFD and Bexar County HazMat with review.
  - iv. Task 8: Incorporate Emergency Response BMPs into the first responder training curriculum.
  - v. Task 9: Support First Responders' use of BMPs during Emergency Response.
  - vi. Task 10: Update BMPs, if applicable, as a result of study of effectiveness and use by First Responders, and after the workshop on emergency response experiences and practices in karst watersheds.
- c. Develop "Edwards Aquifer Water Quality Protection Information Base and User-Friendly Interface for First Responders and Fire Emergencies."
  - i. Task 11: Assemble non-digital records for review and begin records review and verification.
  - ii. Task 12: Complete design of the database, user-friendly interface, and inventory of map, software, and hardware needed to complete this Project activity.
  - iii. Task 13: Build database and user-friendly interface, initiate testing and get user feedback as development proceeds.
  - iv. Task 14: Work with TEEX to include use of the database and user-friendly interface in the training curriculum.
  - v. Task 15: Gather user feedback and update database and user-friendly interface.
- d. Emergency Response BMP effectiveness assessment protocol and integrate assessment of aquifer contaminant/pollution reduction due to employment of emergency response BMPs into regular EAA sampling/monitoring programs for aquifer water quality.
  - i. Task 16: Develop study protocol upon completion of emergency response BMPs and review of the First Responder training curriculum.
  - ii. Task 17: Where possible, Study Emergency Response BMP effectiveness on reducing impact on aquifer water quality in urbanized Bexar County from hazardous materials in runoff.
  - iii. Task 18: Continue this work on an event-by-event basis as an in-kind long-term contribution to the Project.
- e. Education and Information Support
  - i. Task 19: Develop video script and identify location of production sites.
  - ii. Task 20: Film and edit video.

- iii. Task 21: Complete video production and make available for TEEEX training curriculum.
  - iv. Task 22: Leverage and link outreach and educational materials into the EAA's and partners' regular outreach and education feeds to websites, Twitter, and news throughout Project timeline and after it is completed.
  - v. Task 23: Continue education and information support during and after Project activity ends as an in-kind long-term contribution to the Project.
- f. Hold a workshop on emergency response experiences and practices in karst watersheds to validate, improve, maintain, and share activities of the Project among water quality protection professionals.
  - i. Task 25: Initiate work on planning for arrangements, agenda, invitees, and timeline.
  - ii. Task 26: Issue workshop announcement and invitation.
  - iii. Task 27: Hold workshop.
  - iv. Task 28: Complete and publish workshop report.
- 7. The City may rescind the funding in whole or in part if milestones and/or major tasks are missed without providing City with appropriate notice and justification, and alternative plans and timeline or the Project falls significantly behind schedule, except in cases of force majeure.
- 8. Funding Recipient has a sixty calendar-day grace period from agreed Project end date to complete the Final Report, subject to force majeure.
- 9. Funding Recipient may request an extension in writing up to fifteen business days before the original Project end date.
- 10. Any decisions regarding the extension to the Project end date shall be made by the River Authority in coordination with the City.
- 11. The River Authority shall review and approve the Final Report in writing to verify the project has met the requirements under this Agreement prior to final payment.
- 12. Funding Recipient is aware that presentations may be requested by the River Authority, the City, the CAB, San Antonio City Council, or other governing or advisory bodies associated with the Project.
- 13. Funding Recipient agrees to be reasonably available for presentations and/or to provide materials for such presentations to the best of its ability.
- 14. Funding Recipient shall acknowledge the City's support in any signage placed at Project site, or in any news releases or other publications, including educational and training materials, relating to the work performed under this Funding Agreement.
- 15. News releases or similar statements intended for the public media to be released during the term of this Funding Agreement and that will describe comprehensive details about the Project must be sent to the River Authority for review *before* they are sent to any outside party. Failure to send any news or publication release describing comprehensive details about the Project to the River Authority for review shall not result in a breach of this Funding Agreement.

16. Funding Recipient is aware that media interviews may be requested and/or coordinated by the City or the River Authority as a result of this Project. Funding Recipient will reasonably cooperate to respond to these media requests.
17. Funding Recipient grants the City and the River Authority, their representatives and employees the right to take photographs, videos, and other forms of media of the awarded Project.
18. Funding Recipient authorizes the City and the River Authority, their assigns and transferees to copyright, use and publish photographs, videos, and other forms of media in print and/or electronically that are produced by the City and/or the River Authority for this Project.
19. Funding in the amount of \$218,937 shall be paid by the City to the Funding Recipient after River Authority verification of satisfactory performance of work in accordance with the funding schedule attached as Exhibit B and the completion of the Funding Recipient's project schedule, attached as Exhibit C.
20. For the term of this Agreement, at any time during normal business hours and as often as City may deem necessary, upon three-days written notice, Funding Recipient shall make all of its records pertaining to this Agreement available to City or any of its authorized representatives, and shall permit City or any of its authorized representatives to audit, examine, and make excerpts and/or copies of same.
21. Funding Recipient agrees and represents that it will cooperate with City and River Authority, at no charge to the City or River Authority, to satisfy, to the extent required by law, any and all requests for information received by City or River Authority under the Texas Public Information Act or related laws pertaining to this Agreement.
22. Funding Recipient shall not transfer, pledge or otherwise assign this Agreement, any interest in and to same, or any claim arising thereunder, without first procuring the written approval of City. Any attempt at transfer, pledge or other assignment shall be *void ab initio* and shall confer no rights upon any third person.

### **No Third Party Rights**

1. This Agreement is not intended, nor shall it be construed, to create any third party beneficiary rights in any person who is not a party hereto, unless otherwise expressly herein provided.
2. Nothing in this Agreement shall be deemed or construed by the Parties hereto, or any third party, to create the relationship of principal and agent, partners, joint venturers or any other similar such relationship between the parties hereto. It is understood and agreed that no provision contained herein, nor any acts of the Parties hereto, creates a relationship other than the relationship of independent contracting entities.

### **Publication and Academic Rights**

Funding Recipient's Principal Investigator has the right to publish or otherwise publicly disclose information gained in the course of the Project under this Agreement. Funding Recipient will, however, submit any prepublication material to City for review and comment at least fifteen (15)



working days prior to planned submission for publication. City will notify Funding Recipient of any objections within ten (10) working days of receipt. Funding Recipient shall have final authority to determine the scope and content of any publications. Funding Recipient shall acknowledge the City's contribution, and describe in any publications, the scope and nature of City's contribution accurately and appropriately.

### **Ownership of Materials and Documents**

Funding Recipient retains ownership of all intellectual property that Funding Recipient develops under this Agreement. Funding Recipient grants to City an irrevocable, royalty-free, non-transferable, nonexclusive license to use, reproduce, display, and perform any data and deliverables delivered under this Agreement.

### **Equipment**

Funding Recipient shall retain title to all equipment and structures purchased and/or fabricated by it with funds provided under this Agreement.

### **Liability**

As government entities, each party hereby expressly acknowledge that they are governed by the Texas Tort Claims Act, which is located in Chapter 101 of the Texas Civil Practice and Remedies Code, and nothing in this Agreement shall be construed as a waiver by either of the Parties of any of the immunities and protections from liability included therein or otherwise provided by law.

### **No Warranties**

City and River Authority acknowledge that due to the factors described in the Limitations section of this Agreement, the Project outcome is inherently uncertain and unpredictable. Funding Recipient therefore makes no warranties as to: the conduct, completion, success, or particular results of the Project; the condition, ownership, merchantability, or fitness for a particular purpose of any Project results or deliverable; whether the use of any Project results or deliverable will infringe any intellectual property right of a third party; or any other matter related to the Project. Funding Recipient disclaims the warranties of merchantability and fitness for a particular purpose and all other implied warranties.

### **Force Majeure**

For purposes of this Agreement, "Force Majeure Event" means, with respect to a party, any event or circumstance, whether or not foreseeable, that was not caused by that party (other than a strike or other labor unrest that affects only that party, an increase in prices or other change in general economic conditions, a change in law, or an event or circumstance that results in that party's not having sufficient funds to comply with an obligation to pay money) and any consequences of that event or circumstance. If a Force Majeure Event prevents a party from complying with any one or more obligations under this Agreement, that inability to comply will not constitute breach if (1) that party uses reasonable efforts to perform those obligations, (2) that party's inability to perform those obligations is not due to its failure to (a) take reasonable

measures to protect itself against events or circumstances of the same type as that Force Majeure Event or (b) develop and maintain a reasonable contingency plan to respond to events or circumstances of the same type as that Force Majeure Event, and (3) that party complies with its obligations under this paragraph. If a Force Majeure Event occurs, the noncomplying party shall promptly notify the other party of occurrence of that Force Majeure Event, its effect on performance, and how long the noncomplying party expects it to last. Thereafter the noncomplying party shall update that information as reasonably necessary. During a Force Majeure Event, the noncomplying party shall use reasonable efforts to limit damages to the other party and to resume its performance under this Agreement.

### **Insurance**

To the extent authorized by the Texas Constitution and the laws of the State of Texas, the Funding Recipient, at its own expense, shall provide and maintain, during the term of this Agreement, either insurance, with or without retention, or a self-insurance program.

### **Notices**

Any notice required by this Agreement shall be given by prepaid, first class, certified mail, return receipt requested, or by a recognized overnight courier, address as follows:

<b>In the case of City:</b>	<b>In the case of River Authority:</b>	<b>In the case of Funding Recipient</b>
Phillip Covington	Karen Bishop	Michael O'Brien, Ph.D.
Special Projects Manager	Senior Supervisor	Provost and VP for Academic Affairs
Edwards Aquifer Protection Program	Stormwater Unit	
Parks and Recreation Department	Environmental Sciences Dept.	Texas A&M University - San Antonio
PO Box 839966	100 E. Guenther Street	One University Way
San Antonio, Texas 78283	San Antonio, Texas 78204	San Antonio, TX 78224
(210) 207-3003	(210) 302-3642	(512) 671-0054
<a href="mailto:phillip.covington@sanantonio.gov">phillip.covington@sanantonio.gov</a>	<a href="mailto:kbishop@sara-tx.org">kbishop@sara-tx.org</a>	<a href="mailto:rudym.rosen@tamusa.edu">rudym.rosen@tamusa.edu</a>

## **COMPLIANCE WITH SMALL, MINORITY AND WOMAN-OWNED BUSINESS ENTERPRISES POLICY, NON-DISCRIMINATION AND EQUAL EMPLOYMENT OPPORTUNITY POLICY**

Funding Recipient is hereby advised that it is the policy of the City of San Antonio that Small, Minority or Woman-owned Business Enterprises (SMWBE) shall have the maximum practical opportunity to participate in the performance of public contracts. Funding Recipient further agrees that Funding Recipient will abide by all applicable terms and provisions of City's Non-Discrimination Policy, City's Small, Business Economic Development Advocacy (SBEDA) Policy and City's Equal Opportunity Affirmative Action Policy, these policies being available in City's Department of Economic Development, Division of Internal Review and the City Clerk's Office.

The City has applied the following contract-specific Affirmative Procurement Initiative to this contract: None (Waiver approved 4/18/2019).

### **Termination**

The Parties, with or without cause, may elect to terminate this Agreement by providing sixty (60) days written notice to the other Parties. Termination of this Agreement shall not affect the rights and obligations of the Parties accrued prior to the termination. Upon termination, City shall pay Funding Recipient for all reasonable expenses incurred or committed to be expended as of the effective termination date. Any provisions of this Agreement which by their nature extend beyond termination shall survive such termination.

### **Amendment**

This Funding Agreement supersedes all prior agreements and understandings between the Parties regarding the Project and may only be changed by written amendment signed by all three of the Parties.

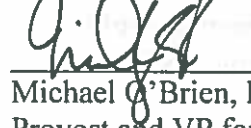
This Agreement shall be governed by, construed and enforced in accordance with the internal laws of the State of Texas.

*[Remainder of Page Intentionally Left Blank. Signatures on Following Page.]*

**Funding Recipient**

Date: 5/9/19

Signed by:

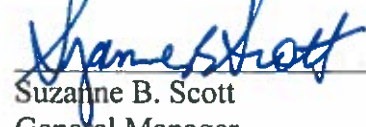


Michael O'Brien, Ph.D.  
Provost and VP for Academic Affairs

**San Antonio River Authority**

Date: 5/15/19

Signed by:



Suzanne B. Scott  
General Manager  
San Antonio River Authority

Approved as to form:



Director of Legal Services

**City of San Antonio**

Date: \_\_\_\_\_

Attest:



City Clerk

Date: \_\_\_\_\_

Signed by:



Xavier D. Urrutia  
Director, Parks and Recreation  
City of San Antonio

Approved as to form:



City Attorney

# Exhibit A

## Project Budget

### OVERALL PROJECT BUDGET SUMMARY

Develop a training curriculum and program for First Responders on the Emergency Response BMPs, use of containment tools and supplies, and how to use the Edwards Aquifer Water Quality Protection Interface for First Responders and Fire Emergencies. Provide training to an initial group of First Responders.

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
Design and develop a 12-hour interactive face-to-face First Responder training course incorporating best management practices for preventing hazardous materials in runoff from polluting the aquifer	\$ 40,000								
First Responder Training for 30 people: Stations 1 and 34	\$ 14,800								\$ 54,800
Direct Costs	\$ 54,800								\$ 54,800
Indirect Cost (19.9% of first \$25,000 of subcontractor)	\$ 4,975								\$ 4,975
Sub-Total	\$ 59,775								\$ 59,775

Develop Best Management Practices (Emergency Response BMPs for Karst Aquifers) for use in the EA recharge zone that will provide specific guidance to and be the basis for training of First Responders on actions that may be taken and on use of measures to protect the aquifer from contamination from emergency response water runoff.

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
Development, review, revision, and management of Emergency Response BMP formation activities			\$ 7,500						
Staff support and expertise in the development, review, revision of Emergency Response BMPs					\$ 5,000				
Long-term review, evaluation, revision, and improvement of Emergency Response BMPs (Long-term annual contribution)					\$ 2,000				
Direct Costs			\$ 7,500						\$ 7,500
Indirect Cost (19.9% negotiated federal rate for off-campus work)			\$ 1,493						\$ 1,493
Sub-Total			\$ 8,993						\$ 8,993
Sub-Total In-kind Contribution					\$ 5,000				\$ 5,000
Sub-Total Long-Term Annual Maintenance/Management					\$ 2,000				\$ 2,000

Develop an "Edwards Aquifer Water Quality Protection Information Base and Interface for First Responders and Fire Emergencies."

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
Technical expertise/support on development of an integrated map-based information system, interoperability of databases, and user interface (Contingency)			\$ 50,000						
Software and map products			\$ 18,000						
Update sensitive karst features database, review non-digital records, conduct field verifications			\$ 20,000		\$ 15,000				
Staff expertise to build an integrated map-based information system, work on interoperability of databases, and build of a user interface					\$ 15,000				
Long-term review, evaluation, revision, and improvement of karst features database (Long-term annual contribution)					\$ 1,000				
Direct Costs			\$ 88,000						\$ 88,000
Indirect Cost (19.9% negotiated federal rate for off-campus work)			\$ 15,920						\$ 15,920
Sub-Total			\$ 103,920						\$ 103,920
Contingency			\$ 50,000						\$ 50,000
Sub-Total In-kind Contribution					\$ 16,000				\$ 16,000
Sub-Total Long-Term Annual Maintenance/Management					\$ 3,000				\$ 3,000

Develop an Emergency Response BMP effectiveness assessment protocol and integrate assessment of aquifer contaminant/pollution reduction due to employment of emergency response BMPs into regular EAA sampling/monitoring programs for aquifer water quality.

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
EAA Development of study protocol					\$ 18,000				
Long-term sampling and study (Long-term annual contribution)					\$ 3,000				
Direct Costs									
Indirect Cost									
Sub-Total					\$ 18,000				\$ 18,000
Sub-Total In-kind Contribution					\$ 3,000				\$ 3,000

### Education and Information Support

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
Video production, editing			\$ 11,000						
Video project management, script development, support, review			\$ 2,500						
Travel			\$ 500						
Expert support for video, script, and questionnaire					\$ 2,000				
Long-term general outreach and educational materials (Long-term annual contribution)					\$ 3,000		\$ 1,000		
Direct Costs			\$ 14,000						\$ 14,000
Indirect Cost (19.9% negotiated federal rate for off-campus work)			\$ 3,582						\$ 3,582
Sub-Total			\$ 17,582						\$ 17,582
Sub-Total In-kind Contribution					\$ 2,000				\$ 2,000
Sub-Total Long-Term Annual Maintenance/Management					\$ 3,000		\$ 1,000		\$ 7,000

Hold a workshop on emergency response experiences and practices in karst watersheds to validate, improve, maintain, and share activities of the project among water quality protection professionals.

	TEEX		TAMU-SA/TWIST		EAA		EAC		TOTAL
	Requested	In-kind	Requested	In-kind	Requested	In-kind	Requested	In-kind	
General meeting support costs, room rentals, materials							\$ 5,500		
Report production and publication			\$ 4,500						
Arrangements, invitations, attendee support, and meeting management					\$ 5,000		\$ 5,000		
Direct Costs			\$ 4,500				\$ 5,500		\$ 10,000
Indirect Cost (19.9% negotiated federal rate for off-campus work)			\$ 896				\$ 3,095		\$ 3,991
Sub-Total			\$ 5,396				\$ 8,595		\$ 13,991
Sub-Total In-kind Contribution					\$ 5,000		\$ 5,000		\$ 10,000

Overall project management and administration

	TEEX		TAMU-SA/TWRST		EAA		EAC		TOTAL
	Requested	Inkind	Requested	Inkind	Requested	Inkind	Requested	Inkind	
Principal Investigator Time - Dr. Rudolph R. R. 1 Month Salary			\$ 13,304						
Fringe Benefits			\$ 3,942						
Direct Costs			\$ 17,246						\$ 17,246
Indirect Cost (19.9% negotiated federal rate for off-campus work)			\$ 3,432						\$ 3,432
Sub-Total			\$ 20,678						\$ 20,678

TOTALS

	TEEX		TAMU-SA/TWRST		EAA		EAC		GRAND TOTALS
	Requested	Inkind	Requested	Inkind	Requested	Inkind	Requested	Inkind	
Total Direct Costs	\$ 54,800		\$ 127,246				\$ 5,500		\$ 187,546
Total Indirect Cost	\$ 4,975		\$ 25,322				\$ 1,095		\$ 31,391
Total	\$ 59,775		\$ 152,568				\$ 6,595		\$ 218,937
Total Contingency			\$ 50,000						\$ 50,000
Total In-Kind Contribution						\$ 72,000		\$ 6,000	\$ 78,000
Total Long-Term Annual Maintenance/Management						\$ 9,000		\$ 1,000	\$ 10,000

GRAND TOTALS

Total Direct Costs	\$ 187,546
Total Indirect Cost	\$ 31,391
Total	\$ 218,937
Total Contingency	\$ 50,000
Total In-Kind Contribution	\$ 78,000
Total Long-Term Annual Maintenance/Management	\$ 10,000

## **Exhibit B**

### **Funding Schedule**

The schedule of payments will correspond with Funding Recipient's monthly requirement to provide status reports to the City on the first Friday of each month during the term of the Funding Agreement. The Funding Recipient will submit an itemized invoice of sufficient detail each month to determine work performed based on percentage completion of the tasks in each of the six (6) major task categories for which payment will be requested for work performed by the Funding Recipient or its subrecipient(s), and for each category of reimbursable expenses for the services provided. Major task categories are listed in Exhibit A along with the budget requested in each category. An accompanying status report will document progress on each of the major tasks.

Upon the River Authority's review and approval of invoices, the City shall remit payment to Funding Recipient within 30 days of receipt of invoice. The City shall reimburse the Funding Recipient for ninety-five percent (95%) of the total of each invoice submitted. Upon Funding Recipient's performance and completion of the Project and acceptance by the City and the River Authority, the City shall pay the retained five percent (5%) to the Funding Recipient.



## Exhibit C

### Project Schedule

