

Texas State Soil and Water Conservation Board
State Nonpoint Source Grant Program
FY 2023 Workplan 23-55

SUMMARY PAGE			
Title of Project	La Nana Bayou WPP Implementation		
Project Goals	<ul style="list-style-type: none"> Facilitate implementation of the La Nana Bayou WPP Connect and engage with stakeholders on current and future WPP implementation Train educators and SFASU graduate students on citizen community science and the La Nana Bayou WPP management measures Continue water quality monitoring efforts 		
Project Tasks	(1) Project Administration; (2) Quality Assurance; (3) Surface Water Quality Monitoring; (4) Education, Outreach, and Community Citizen Science		
Measures of Success	<ul style="list-style-type: none"> Number of contact hours from educational programs Online outreach metrics (website visits, clicks on digital media materials, etc.) Collection and analysis of water quality data 		
Project Type	Implementation (X); Education (X); Planning (); Assessment (X); Groundwater ()		
Status of Waterbody on 2022 Texas Integrated Report	<u>Segment ID</u> 0611B	<u>Parameter of Impairment or Concern</u> Bacteria Nitrate Total Phosphorus	<u>Category</u> 5b CS CS
Project Location (Statewide or Watershed and County)	Project County: Nacogdoches Project City: Nacogdoches		
Key Project Activities	Hire Staff (); Surface Water Quality Monitoring (x); Technical Assistance (); Education (x); Implementation (x); BMP Effectiveness Monitoring (); Demonstration (); Planning (); Modeling (); Bacterial Source Tracking (); Other ()		
2022 Texas NPS Management Program Reference	<ul style="list-style-type: none"> Component 1: LTG Obj. 1, 2, 3, 6, 7, 8 STG 1 Obj. B, E; STG 2 Obj. A, D; STG 3 Obj. A, B, D, G Component 2 Component 3 Component 5 Component 6 Milestones: Priority Watershed Level Milestones (Ch. 2): Stakeholder Participation, Water Quality Monitoring 		
Project Costs	Total	\$ 136,667	
Project Management	<ul style="list-style-type: none"> Texas A&M AgriLife Research, Texas Water Resources Institute 		
Project Period	May 16, 2023 – April 30, 2025		

Part I – Applicant Information

Applicant							
Project Lead		Dr. Lucas Gregory					
Title		Associate Director					
Organization		Texas A&M AgriLife Research, Texas Water Resources Institute					
E-mail Address		LFGregory@ag.tamu.edu					
Street Address		1001 Holleman Dr. E., 2118 TAMU					
City	College Station	County	Brazos	State	TX	Zip Code	77843
Telephone Number	979-314-2361			Fax Number	979-845-0662		

Project Partners	
Names	Roles & Responsibilities
Texas State Soil and Water Conservation Board (TSSWCB)	Provide state oversight and management of all project activities and ensure coordination of activities with related projects and TCEQ.
Texas A&M AgriLife Research, Texas Water Resources Institute (TWRI)	Provide project oversight and administration; QAPP development and implementation; assist with water quality monitoring site selection; data management and submission; participate in any public meetings and disseminate education materials to stakeholders; coordinate watershed education events; provide technical assistance to other project partners.
Angelina & Neches River Authority (ANRA)	Provide stakeholder facilitation assistance and conduct water quality monitoring; assist with QAPP development and implementation.
Stephen F. Austin State University – Arthur Temple College of Forestry (SFASU)	Conduct water quality monitoring efforts; assist with QAPP development and implementation.

Part II – Project Information

Project Type							
Surface Water	X	Groundwater					
Does the project implement recommendations made in: (a) a completed WPP; (b) an accepted WPP; (c) an adopted TMDL; (d) an approved I-Plan; (e) a Comprehensive Conservation and Management Plan developed under CWA §320; (f) the <i>Texas Coastal NPS Pollution Control Program</i> ; or (g) the <i>Texas Groundwater Protection Strategy</i> ?				Yes	X	No	
If yes, identify the document.		La Nana Bayou Watershed Protection Plan					
If yes, identify the agency/group that developed and/or approved the document.		TWRI/TCEQ		Year Developed	2023		

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2022 IR	Size (Acres)
La Nana Bayou	120200050102	0611B	5b, CS, NC, NS	53,269

Water Quality Impairment		
Describe all known causes (i.e., pollutants of concern) and sources (e.g., agricultural, silvicultural) of water quality impairments or concerns from any of the following sources: <i>2022 Texas Integrated Report</i> , Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.		
<u>Impairments</u>		
SegID 0611B, AUID 0611B_01: From the confluence with Angelina River (SegID 0611), upstream to State Loop 224 in City of Nacogdoches.		
<u>Parameter</u>	<u>Category</u>	<u>Year</u>
Bacteria	5b	2000
SegID 0611B, AUID 0611B_02: From the upstream side of State Loop 224 upstream to FM 18789 in City of Nacogdoches.		
<u>Parameter</u>	<u>Category</u>	<u>Year</u>
Bacteria	5b	2000
SegID 0611B, AUID 0611B_03: From the upstream side of FM 1878 in City of Nacogdoches upstream to confluence with Banita Creek.		
<u>Parameter</u>	<u>Category</u>	<u>Year</u>
Bacteria	5b	2000
<u>Concerns</u>		
SegID 0611B		
<u>Parameter</u>	<u>Level of Concern</u>	

Bacteria NS

0611B_01: From the confluence with Angelina River (SegID 0611), upstream to State Loop 224 in City of Nacogdoches.

0611B_02: From the upstream side of State Loop 224 upstream to FM 18789 in City of Nacogdoches.

0611B_03: From the upstream side of FM 1878 in City of Nacogdoches upstream to confluence with Banita Creek.

<u>Parameter</u>	<u>Level of Concern</u>
Nitrate	CS

0611B_01: From the confluence with Angelina River (SegID 0611), upstream to State Loop 224 in City of Nacogdoches.

<u>Parameter</u>	<u>Level of Concern</u>
Total Phosphorus	CS

0611B_01: From the confluence with Angelina River (SegID 0611), upstream to State Loop 224 in City of Nacogdoches.

Sources
SegID 0611B

AUID 0611B_01

E.coli

Point sources: Unknown

Non-point sources: Unknown

Nitrate

Point sources: Unknown

Non-point sources: Unknown

Total Phosphorus

Point sources: Unknown

Non-point sources: Unknown

AUID 0611B_02

E.coli

Point sources: Municipal point source discharges

Non-point sources: Unknown

AUID 0611B_03

E.coli

Point sources: Unknown

Non-point sources: Unknown

Project Narrative

Problem/Need Statement

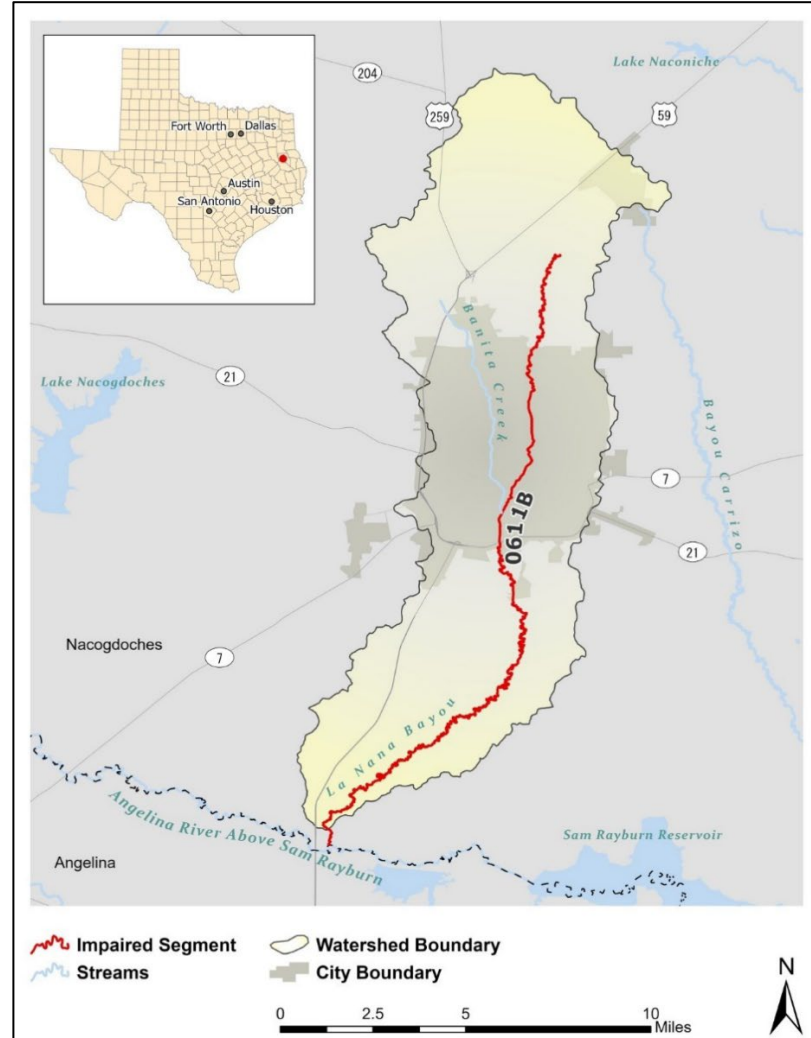
The La Nana Bayou Watershed is a 53,269-acre watershed in east Texas in Nacogdoches County with a mixture of urban and rural land uses. The city of Nacogdoches is the heart of the watershed, covering the middle, around 25% of it, in developed land use, while suburban communities, livestock production, and forestry make up most of the surrounding rural area. The bayou is a 32-mile freshwater stream that begins north of Nacogdoches until its confluence with the Angelina River at the southernmost part of the county.

La Nana Bayou is divided into three assessment units that are used to incrementally evaluate water quality in the stream. Routine water quality monitoring led to La Nana Bayou being initially included on the Texas 303(d) list in 2000 due to elevated bacteria and currently the three AUs are still listed due to not meeting their primary contact recreation standard designation. There are also concerns for elevated nitrogen and total phosphorus concentrations in the downstream segment of the bayou. ANRA currently monitors the bayou quarterly through the Clean Rivers Program (CRP). TWRI, ANRA, and SFASU developed a watershed characterization report in 2019 which led to the ongoing TCEQ Project No. 582-21-10120, *La Nana Bayou Watershed Protection Plan (WPP) Development*. The final WPP is under review by TCEQ.

These projects have allowed a productive relationship to develop between the project team, the city of Nacogdoches, Nacogdoches County, and the administration of SFASU due to a common goal of seeing La Nana Bayou and Banita Creek protected and restored for the benefit of the community. Stakeholders are ready to see and be a part of tangible actions that will help La Nana Bayou meet water quality standards for primary contact recreation.

Project Narrative

General Project Description (Include Project Location Map)



The project team will facilitate effective implementation of the La Nana Bayou WPP by providing technical expertise and support to watershed residents that are looking forward to working on the opportunities presented in the WPP. Education and outreach activities will detail the importance of achieving water quality standards in La Nana Bayou and the value of adopting BMPs. The project team will also provide support to stakeholders by identifying potential funding sources and developing proposals to ensure the future sustainability of project activities.

TWRI will conduct at least one La Nana Bayou watershed-specific “train-the-trainer” TEKS-aligned workshop for Nacogdoches K-12 educators on citizen and community science (CCS) projects to be used in their classrooms, based on the TSSWCB-funded ACCESS program. Additionally, TWRI will work with SFASU to lead at least one lab training activity for undergraduate and graduate students at SFASU on routine water quality sampling, GIS for CCS (i.e. using StoryMaps for sharing information), and water quality analysis which will introduce students to the ongoing work in the watershed.

Additional water quality monitoring data will be collected to expand the existing CRP monitoring schedule once an approved monitoring QAPP is secured. ANRA and SFASU will conduct routine monitoring at one of the CRP sites eight times per year (complementing the existing quarterly events) along La Nana Bayou plus at least one additional site on Banita Creek, which is not currently monitored. Additionally, SFASU will monitor monthly at 20 sites along La Nana Bayou and Banita Creek, collecting grab samples for *E. coli* analysis, which will provide higher resolution geographical data to track bacteria loading by land use. The anticipated monitoring schedule will provide one year of consecutive monthly water quality data at 22 total sites in the watershed. This information will benefit stakeholders by helping accurately prioritize resource allocation and support adaptive project implementation.

Tasks, Objectives and Schedules			
Task 1	Project Administration		
Costs	Total	\$ 19,134	
Objective	To effectively administer, coordinate, and monitor all work performed under this project including technical and financial supervision, and preparation of status reports.		
Subtask 1.1	TWRI will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 1 st of December, March, June and September. QPRs shall be distributed to all Project Partners.		
	Start Date	Month 1	Completion Date Month 24
Subtask 1.2	TWRI will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.		
	Start Date	Month 1	Completion Date Month 24
Subtask 1.3	TWRI will host coordination meetings or conference calls, at least quarterly, with Project Partners to discuss project activities, project schedule, communication needs, deliverables, and other requirements. TWRI will develop lists of action items needed following each project coordination meeting and distribute to project personnel.		
	Start Date	Month 1	Completion Date Month 24
Subtask 1.4	TWRI will develop a Final Report that summarizes activities completed and conclusions reached during the project and discusses the extent to which project goals and measures of success have been achieved.		
	Start Date	Month 1	Completion Date Month 24
Deliverables	<ul style="list-style-type: none"> • QPRs in electronic format • Reimbursement Forms and necessary documentation in hard copy format • Final Report in electronic and hard copy formats 		

Tasks, Objectives and Schedules			
Task 2	Quality Assurance		
Costs	Total	\$ 6,833	
Objective	To develop data quality objectives (DQOs) and quality assurance/control (QA/QC) activities to ensure data of known and acceptable quality are generated through this project.		
Subtask 2.1	TWRI will develop a QAPP for activities in Task 3 consistent with the most recent versions of <i>EPA Requirements for Quality Assurance Project Plans (QA/R-5)</i> and the <i>TSSWCB Environmental Data Quality Management Plan</i> . All monitoring procedures and methods prescribed in the QAPP shall be consistent with the guidelines detailed in the <i>TCEQ Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, Sediment, and Tissue (RG-415)</i> and <i>Volume 2: Methods for Collecting and Analyzing Biological Assemblage and Habitat Data (RG-416)</i> . [Consistency with Title 30, Chapter 25 of the Texas Administrative Code, <i>Environmental Testing Laboratory Accreditation and Certification</i> , which describes Texas' approach to implementing the National Environmental Laboratory Accreditation Conference (NELAC) standards, shall be required where applicable.]		
	Start Date	Month 1	Completion Date
Subtask 2.2	TWRI will implement the approved QAPP. TWRI will submit revisions and necessary amendments to the QAPP as needed.		
	Start Date	Month 3	Completion Date
Deliverables	<ul style="list-style-type: none"> QAPP approved by TSSWCB and EPA in both electronic and hard copy formats Approved revisions and amendments to QAPP, as needed Data of known and acceptable quality as reported through Task 3 		

Tasks, Objectives and Schedules			
Task 3	Surface Water Quality Monitoring		
Costs	Total	\$ 56,034	
Objective	To collect surface water quality and flow data to better characterize impairing parameters within the watershed.		
Subtask 3.1	ANRA and SFASU will conduct routine water quality monitoring at least two sites in the watershed: one of the three CRP sites (Station IDs 10474, 16301, or 20792), and one additional site on Banita Creek (location TBD). Sampling will include routine field parameters (water temperature, pH, DO, specific conductance, instantaneous stream flow, days since last significant rainfall, flow severity, present weather, transparency, and total water depth). Water samples will be analyzed for Nitrate-N, Nitrite-N, Ammonia-N, Total Phosphorus, Chloride, Sulfate, Total Suspended Solids, and E. coli.		
	SFASU will collect water samples at 20 sites along La Nana Bayou and Banita Creek monthly. Water quality samples collected by SFASU will be analyzed for E. coli only by the ANRA Environmental Laboratory.		
	These sites will be identified in the monitoring QAPP prior to the start of monitoring.		
	Start Date	Month 3	Completion Date
Subtask 3.2	ANRA will manage and maintain water quality data and transfer properly formatted data to TCEQ for inclusion in SWQMIS on a quarterly basis. Data will be submitted electronically to the TCEQ Project Manager in the Event/Result file format described in the most current version of the Data Management Reference Guide (DMRG.) A completed Data Review Checklist and Data Summary will be submitted with each data submittal.		
	Start Date	Month 3	Completion Date
	Start Date	Month 3	Completion Date
	Start Date	Month 3	Completion Date

Subtask 3.3	TWRI will conduct a water quality data assessment to reveal trends in water quality over the course of the project. Assessment will include analysis of Nitrate-N, Total Phosphorus, and E. coli.		
	Start Date	Month 3	Completion Date
Month 3		Month 24	
Deliverables	<ul style="list-style-type: none"> • Documentation of sampling events (quarterly, with PRs) • All field notes and instrument calibration sheets from first sampling event (within 30 days of event) • SWQMIS Data Submissions (data summary and checklist, event and result files, and validator report) after successful upload into SWQMIS test environment (quarterly, with PRs) • Draft Monitoring and Data Assessment Report (with draft final report) • Final Monitoring and Data Assessment Report (with final report) 		

Tasks, Objectives and Schedules			
Task 4	Education, Outreach, and Community Citizen Science		
Costs	Total	\$ 54,666	
Objective	TWRI will host at least one La Nana Bayou watershed-specific “train-the-trainer” TEKS-aligned workshop for Nacogdoches K-12 educators on citizen and community science (CCS) projects to be used in their classrooms, based on the TSSWCB-funded ACCESS program, and lead at least one lab training activity for undergraduate and graduate students at SFASU on routine water quality sampling, GIS for CCS (i.e. using StoryMaps for sharing information), and water quality analysis which will introduce students to the ongoing work in the watershed.		
Subtask 4.1	Develop training materials based on the ACCESS program workshops and incorporate La Nana Bayou watershed-specific information, water quality, nonpoint source pollution, watershed protection, and other relevant topics. This may include presentations, posters, workbooks, and other helpful materials to promote the WPP.		
	Start Date	Month 1	Completion Date
Month 1		Month 12	
Subtask 4.2	Coordinate, market, and host at least one day-long training for teachers using ACCESS workshop materials and the supplemental La Nana Bayou materials in Nacogdoches.		
	Start Date	Month 3	Completion Date
Month 3		Month 21	
Subtask 4.3	Evaluate program effectiveness by conducting a post-training survey to assess program participant’s satisfaction, intentions to adopt training resources into their classrooms, and other feedback.		
	Start Date	Month 3	Completion Date
Month 3		Month 24	
Subtask 4.4	Develop lab training materials with professor to tailor materials to the course and include La Nana Bayou watershed-specific information, water quality, nonpoint source pollution, watershed protection, and other relevant topics.		
	Start Date	Month 1	Completion Date
Month 1		Month 12	
Subtask 4.5	Lead lab training activity at least once for SFASU students. Timing of WQ sampling will be coordinated with a routine water quality sampling trip so students can compare optical brightener test results with a NELAP-accredited lab analysis.		
	Start Date	Month 3	Completion Date
Month 3		Month 21	
Deliverables	<ul style="list-style-type: none"> • TEKS-aligned curriculum and workshop materials for teacher workshop and SFASU lab and StoryMap generated with CCS data • Advertisements for the teacher workshop • Documentation of educational contact hours for the teacher workshop and student lab • Documentation of feedback from workshop • Analysis of the CCS-collected data in comparison to the lab results 		

Project Goals (Expand from Summary Page)

- Facilitate and cultivate support to effectively implement the La Nana Bayou WPP through the continued coordination of watershed stakeholders, city and county representatives, TSSWCB, SWCDs, NRCS and others as appropriate. Track and document implementation of the WPP and convey this progress to watershed stakeholders, entities and agencies.
- Conduct periodic stakeholder meetings that provide updates on WPP implementation progress, to keep stakeholders engaged in efforts to implement the WPP and seek input from stakeholders on future implementation activities.
- Support future funding acquisition by working with local stakeholders, entities and agencies to identify specific funding needs, identify specific funding sources, and assist in efforts to acquire those funds.
- Engage with local educators and students to get them more involved in implementing the WPP through workshops.
- Continue monitoring water quality in the watershed.

Measures of Success (Expand from Summary Page)

- Documented educational contact hours from programs organized and hosted; and online outreach metrics such as unique visitors to the La Nana Bayou website, the StoryMap to be created by the CCS and student workshops, and clicks on digital media campaigns. Reported in QPRs.
- At least one newsletter to e-mail subscribers per year; provide project updates during education and outreach events at least twice per year. Reported in QPRs.
- Reported in QPRs as the number of proposals written and/or amount of additional funding secured.
- One year of consecutive monthly bacteria monitoring at up to 20 sites across the watershed and one year of consecutive monthly routine monitoring at two additional sites (one on La Nana Bayou and one on Banita Creek). Reported with SWQMIS data submittal and in QPRs.

2022 Texas NPS Management Program Reference (Expand from Summary Page)

Components, Goals, and Objectives

Component 1 – Explicit short- and long-term goals, objectives, and strategies to restore and protect surface and groundwater.

Long-Term Goal – Protect and restore water quality affected by NPS pollution through assessment, implementation, and education.

Objectives

- Objective 1 – Focus NPS abatement efforts, implementation strategies and available resources in watersheds identified as impacted by NPS pollution in the latest state approved Texas Water Quality Inventory and 303(d) List.
- Objective 2 – Support the implementation of state, regional and local programs to prevent NPS pollution through assessment, implementation, and education.
- Objective 3 - Support the implementation of state, regional, and local programs to reduce NPS pollution, such as the implementation of strategies defined in ... WPPs, and other water quality planning efforts in the state.
- Objective 6 – Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approaches to manage NPS pollution.
- Objective 7 – Increase overall public awareness of NPS issues and prevention activities.
- Objective 8 – Enhance public participation and outreach by providing forums for citizens and industry to contribute their ideas and concerns about the water quality management process.

Short-term Goals

Goal One – Data Collection and Assessment

- Objective B – Ensure that monitoring procedures meet quality assurance requirements and are in compliance with EPA-approved TSSWCB Quality Management Plans.
- Objective E – Conduct monitoring to determine effectiveness of ...WPPs, and BMP implementation.

Goal Two – Implementation

- Objective A – Work with regional and local entities to determine priority areas and develop and implement strategies to address NPS pollution in those areas.
- Objective D – Implement ... WPPs, and other state, regional, local plans developed to restore and maintain water quality in water bodies identified as impacted by NPS pollution.

Goal Three – Education

- Objective A – Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of NPS education.
- Objective B – Administer programs to educate citizens about water quality and their potential role in causing NPS pollution.
- Objective D – Conduct outreach through the CRP, SWCDs, and other partners to enable stakeholders and the public to participate in decision making and provide a more complete understanding of water quality issues and how they relate to each citizen.
- Objective G – Implement public outreach and education to maintain and restore water quality in water bodies impacted by NPS pollution.

Component 2 – Working partnerships and linkages with appropriate state, interstate, regional, and local entities, private sector groups, and federal agencies.

Component 3 – Combination of statewide NPS programs and on-the-ground projects achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs.

Component 5 – Identify waters and watersheds impaired by NPS pollution, as well as priority unimpaired waters, for protection. Establish a process to assign priorities and to progressively address identified watersheds by conducting more detailed watershed assessments, developing watershed plans ..., and then implementing the plans.

Component 6 – Implement all NPS program components required by CWA §319(b) and establish strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable.

Estimated Load Reductions Expected (Only applicable to Implementation Project Type)

While this project is implementing an integral part of the La Nana Bayou Watershed Protection Plan, expected load reductions cannot be quantified; however, loading reductions can be quantified through the adoption of BMPs that this project is promoting and from future observations of collected water quality data.

EPA State Categorical Program Grants – Workplan Essential Elements
 FY 2022-2026 EPA Strategic Plan Reference

Strategic Plan Goal – 5.0 Ensure Clean and Safe Water for All Communities

Strategic Plan Objective – 5.2 - Protect and Restore Waterbodies and Watersheds

This workplan supports Goal 5 (Ensure Clean and Safe Water for All Communities) and Objective 5.2 (Protect and Restore Waterbodies and Watersheds) by funding the Texas State and Soil Water Conservation Board's NPS Program for state and local planning, education, assessments, watershed restoration and protection, best management practices, and related water quality activities.

Part III – Financial Information

Budget Summary	
Category	Total
Personnel	\$ 42,393
Fringe Benefits	\$ 14,922
Travel	\$ 1,296
Equipment	\$ 0
Supplies	\$ 1,231
Contractual	\$ 49,999
Construction	\$ 0
Other	\$ 9,000
Total Direct Costs	\$ 118,841
Indirect Costs (≤ 15%)	\$ 17,826
Total Project Costs	\$ 136,667

Budget Justification (Texas Water Resources Institute)		
Category	Total Amount	Justification
Personnel	\$ 42,393	<p>Program Specialist III: \$76,400 annually, 2.25 mo. (9.39% per year) - \$15,000 Spark! Engineering Program Manager: \$71,303 annually, 0.61 mo (2.56% per year) - \$3,817 TBD Program Manager: \$71,467 annually, 1.3 mo. (5.44% per year) - \$7,894 Program Specialist II: \$60,000 annually, 3 mo. (12.5% per year) - \$15,682</p> <p>*named positions are budgeted with a 3% annual pay increase in all years; TBD positions and graduate students are budgeted with a 3% pay increase in years after year 1 *(Salary estimates are based on average monthly percent effort for the entire contract. Actual percent effort may vary more or less than estimated between months; but in aggregate, will not exceed total effort estimates for the entire project.) *cell phone allowances for project calls/emails during & after business hours & travel are occasionally factored into salaries & fringe, but again, will not exceed overall dollar amount.</p>
Fringe Benefits	\$ 14,922	<p>Fringe benefits are calculated at 18.9% * salary. For part-time and graduate research assistants, the fringe rate is 10.9%. Health insurance rates are at \$963/month for faculty/staff and \$560/month for students.</p> <p>*(Fringe benefits estimates are based on salary the estimates listed. Actual fringe benefits will vary between months coinciding with percent effort variations; but in aggregate, will not exceed the overall estimated total.) *cell phone allowances for project calls/emails during & after business hours & travel are occasionally factored into salaries & fringe, but again, will not exceed overall dollar amount.</p>
Travel	\$ 1,296	<p>Two trips per year for two people including one day each per diem and lodging at the GSA and state rates. The following itemizations are estimates and may fluctuate depending on the state rate and type of transportation: Per diem @ state rate per person per day - \$236 Lodging @ state rate per person per day - \$384 Mileage at the state rate or car rental - \$676</p>
Equipment	\$ 0	N/A
Supplies	\$ 1,231	Office supplies, additional meeting supplies, gasoline for car rental
Contractual	\$ 49,999	Angelina & Neches River Authority: \$35,157 Stephen F. Austin State University: \$14,842
Construction	\$ 0	N/A
Other	\$ 9,000	Communications and marketing: \$3,000 Teacher Workshop: \$3,000 SFASU Lab Workshop: \$3,000
Indirect	\$ 17,826	Indirect costs are calculated at 15% of total direct costs per the RFP limitation.

Budget Justification (Angelina & Neches River Authority)																																										
Category	Total Amount	Justification																																								
Personnel	\$ 13,949	CRP Coordinator: 42,600.69 annually 1.1 mo. (4.95% per year) – \$4,218 Laboratory Services Director/Quality Manager: 63,250 annually 0.48 mo. (2% per year) – \$2,652 Deputy General Manager/Data Manager: 83,458 annually 0.6 mo. (2.5% per year) – \$4,173 Lab Tech/Field Technician: 38,210.15 annually 0.76 mo. (3.187% per year) – \$2,436 Accounting Manager: 47,495.73 annually 0.11 mo. (0.495% per year) – \$470																																								
Fringe Benefits	\$ 3,906	Fringe rate is calculated at 28% of salaries																																								
Travel	\$ 331	Mileage at \$0.655 per mile for 42.1 miles, 12 times																																								
Equipment	\$ 0	N/A																																								
Supplies	\$ 0	N/A																																								
Contractual	\$ 0	N/A																																								
Construction	\$ 0	N/A																																								
Other	\$ 15,576	ANRA Lab analysis costs for: <i>E. coli</i> only sampling: 12 months, 20 sites Full suite of RT analysis: 12 months, 1 site Full suite of RT at one CRP site: 8 months, 1 site <table style="margin-left: 40px; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Cost</th> <th>QTY</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>E. coli enumeration</td> <td>\$38</td> <td>272</td> <td>\$10,336</td> </tr> <tr> <td>Ammonia-N</td> <td>\$35</td> <td>20</td> <td>\$700</td> </tr> <tr> <td>Total Phosphorus</td> <td>\$35</td> <td>20</td> <td>\$700</td> </tr> <tr> <td>Nitrate-N by EPA 300.0</td> <td>\$28</td> <td>20</td> <td>\$560</td> </tr> <tr> <td>Nitrite-N by EPA 300.0</td> <td>\$28</td> <td>20</td> <td>\$560</td> </tr> <tr> <td>Chloride by EPA 300.0</td> <td>\$28</td> <td>20</td> <td>\$560</td> </tr> <tr> <td>Sulfate by EPA 300.0</td> <td>\$28</td> <td>20</td> <td>\$560</td> </tr> <tr> <td>Total Suspended Solids</td> <td>\$25</td> <td>20</td> <td>\$500</td> </tr> <tr> <td>TKN</td> <td>\$55</td> <td>20</td> <td>\$1,100</td> </tr> </tbody> </table>		Cost	QTY	Total	E. coli enumeration	\$38	272	\$10,336	Ammonia-N	\$35	20	\$700	Total Phosphorus	\$35	20	\$700	Nitrate-N by EPA 300.0	\$28	20	\$560	Nitrite-N by EPA 300.0	\$28	20	\$560	Chloride by EPA 300.0	\$28	20	\$560	Sulfate by EPA 300.0	\$28	20	\$560	Total Suspended Solids	\$25	20	\$500	TKN	\$55	20	\$1,100
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Sulfate by EPA 300.0	\$28	20	\$560																																							
Total Suspended Solids	\$25	20	\$500																																							
TKN	\$55	20	\$1,100																																							
Indirect	\$ 1,395	Indirect rate is 10% of salaries.																																								

Budget Justification (Stephen F. Austin State University)		
Category	Total Amount	Justification
Personnel	\$ 7,665	Graduate Student @ 6 months per year, \$7,664.95
Fringe Benefits	\$ 2,316	Graduate Student fringe rate is calculated at 2% of salaries and \$180.27/mo.
Travel	\$ 865	12 sampling trips, 110 mi. at \$0.655 per mile
Equipment	\$ 0	N/A
Supplies	\$ 800	Additional monitoring supplies
Contractual	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 1,260	Doppler flow meter daily usage fee \$30/day for 12 days = \$360 YSI multi-probe daily usage fee \$75/day for 12 days = \$900
Indirect	\$1,936	Indirect costs are calculated at 15% of total direct costs per the RFP limitation.