TEXAS STATE Soil & Water CONSERVATION BOARD

Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2023 Workplan 23-04

SUMMARY PAGE						
Title of Project	Pond Creek Watershed Characterization for Future WPP Development					
Project Goals	• Characterize the watershed by gathering tabular and spatial data to identify potential sources of pollution in the watershed contributing to water quality impairments and related issues • Conduct stakeholder education programs to prepare community for future WPP development					
Project Tasks	(1) Project Administration; (2) Quality Assurance; (3) Public Outreach, Education, Information, (4) Watershed Characterization – Data Evaluation					
Measures of Success	• Aggregation and analysis of existing data • Characterization of causes and sources of impairments • Education events to inform stakeholder about water quality • Estimated Source Loadings					
Project Type	Implementation ( ); Education ( ); Planning (X); Assessment ( ); Groundwater ( )					
Status of Waterbody on *2022 Texas Integrated Report*	Segment ID 1242F	Parameter of Impairment or Concern Bacteria	Category 5c			
Project Location (Statewide or Watershed and County)	Project Cities: Rosebud Project Counties: Falls, Milam, Bell					
Key Project Activities	Hire Staff ( ); Surface Water Quality Monitoring ( ); Technical Assistance ( ); Education (X); Implementation ( ); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning (X); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
2022 Texas NPS Management Program Reference	• Component 1: LTG 1, 2, 6, 7, 8 • Component 1: STG 1A, 1C, 3A, 3B, 3D, 3G • Component 2, 3, 7					
Project Costs	Federal	$83,669	Non-Federal	$55,779	Total	$139,448
Project Management	• Texas A&M AgriLife Research, Texas Water Resources Institute					
Project Period	September 1, 2023 – August 31, 2025					

Part I – Applicant Information

Applicant							
Project Lead	Edward C Rhodes						
Title	Research Specialist II						
Organization	Texas A&M AgriLife Research, Texas Water Resources Institute						
E-mail Address	edward.rhodes@ag.tamu.edu						
Street Address	1001 Holleman Dr. E, MS 2118						
City	College Station	County	Brazos	State	Texas	Zip Code	77840-2118
Telephone Number	979-314-2355	Fax Number					

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 In	Provide project oversight, QA/QC, public education, and outreach, conduct data collection, analysis, and characterization for a future watershed-based plan.

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 *Texas Coastal NPS Pollution Control Program*; or (g) the *Texas Groundwater Protection Strategy*?				Yes		No	X
If yes, identify the document.	N/A						
If yes, identify the agency/group that developed and/or approved the document.	N/A			Year Developed	N/A		

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2022 IR	Size (Acres)
Pond Creek	120701010401 - …0405	1242F	5c	146,758

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: *2022 Texas Integrated Report*, Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.

Impairments (2022 Integrated Report)

Segment 1242F: Pond Creek: Perennial stream from the confluence with the Brazos River in Milam County upstream to the headwaters 0.18 km north of F 935 in Bell County

Assessment Unit	Impairment	Category	Year Listed
1242F_01	*bacteria*	*5c*	*2010*

Potential Sources: Unknown

Project Narrative

Problem/Need Statement

The Pond Creek Watershed covers parts of Bell, Falls, and Milam counties, connecting directly to the Brazos River. It is listed as impaired for bacteria (*E.* coli) on the 2022 *Texas Integrated Report*, having first been listed in 2010. Water quality in Pond Creek currently exceeds recreational use standards and, as a result, a Recreational Use Attainability Analysis was conducted in 2012. The report shows that primary contact recreation occurs "frequently" on the waterbody (Tables 4 & 7: https://www.tceq.texas.gov/assets/public/waterquality/standards/ruaa/brazos5/Brazos5Report.pdf) indicating that standards will not change. In regard to the bacteria impairments, common sources of bacteria result from OSSFs, permitted outfalls, livestock, and wildlife amongst others.

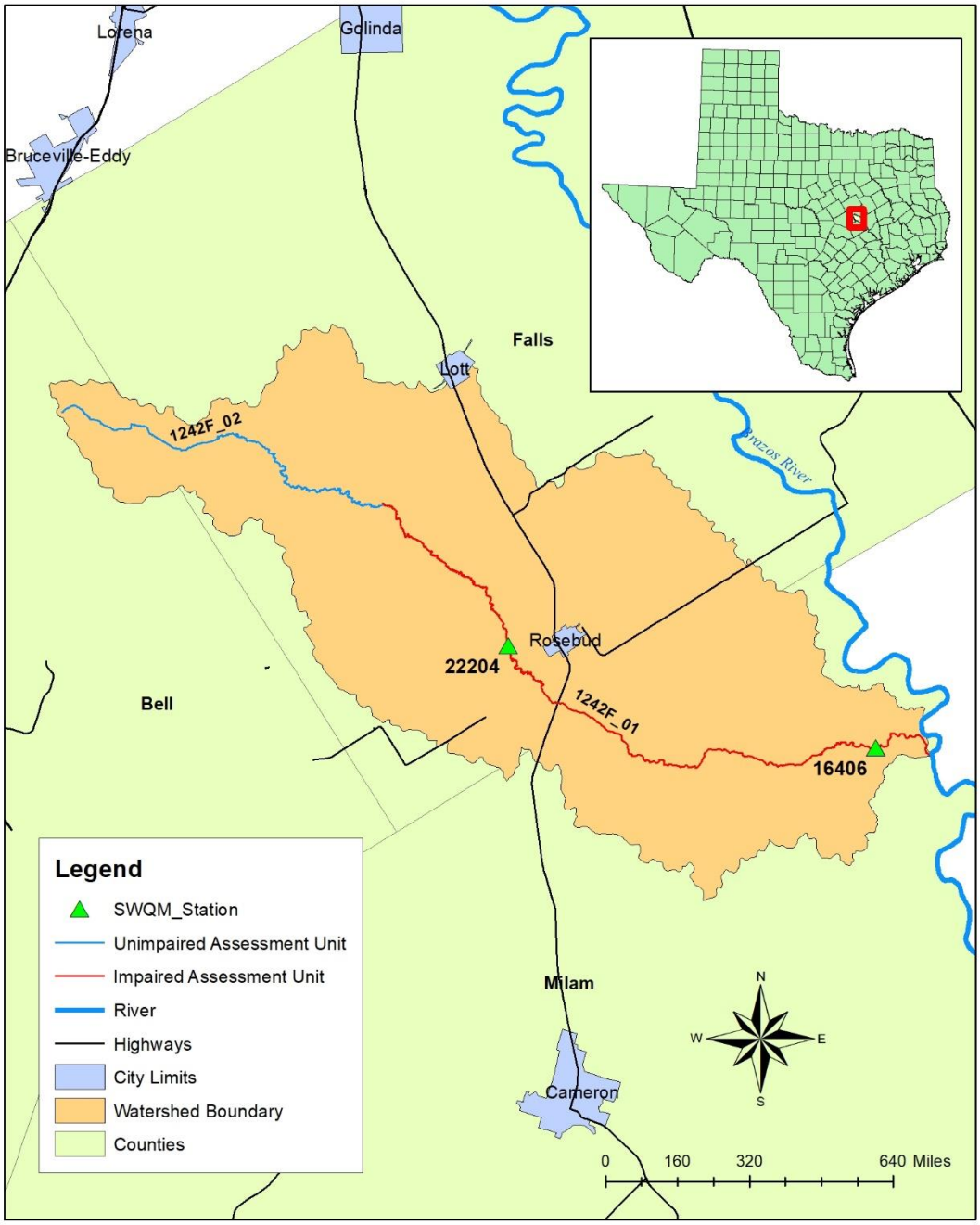
Due to the high instances of primary contact, stakeholder engagement is important to the implementation and success of water quality mitigation measures. A coordinated education program in the watershed stimulates broader understanding of water quality in the watershed and encourages future participation in stakeholder meetings.

Project Narrative

General Project Description (Include Project Location Map)

The Pond Creek Watershed covers 146,758 acres in central Texas within Bell, Falls, and Milam counties. Previous and ongoing projects in the Pond Creek Watershed have sought to fill in data gaps through monthly routine monitoring. This project will take the next step in the watershed management process by collating and analyzing available tabular and geospatial data to develop a characterization report of the Pond Creek Watershed. This will include potential sources of *E. coli*, as well as loadings and load duration curves (LDCs). Two public events will be held in the watershed to educate landowners about proper watershed functioning, as well as to inform them of the characterization report. Development of a watershed characterization report is critical to the future development of a WPP.

Pond Creek Watershed



Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	$20,081	Non-Federal	$13,387	Total	$33,468
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 1st of January, April, July and October. QPRs shall be distributed to all Project Partners.					
	Start Date	Month 01	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 01	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 01	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 01	Completion Date	Month 24		
Deliverables	• 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	Federal	$2,510	Non-Federal	$1,673	Total	$4,183
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 # 4 consistent with the most recent versions of *EPA Requirements for Quality Assurance Project Plans (QA/R-5)* and the *TSSWCB Environmental Data Quality Management Plan*. All monitoring procedures and methods prescribed in the QAPP shall be consistent with the guidelines detailed in the *TCEQ Surface Water Quality Monitoring Procedures, Volume 1: Physical and Chemical Monitoring Methods for Water, Sediment, and Tissue (RG-415)* and *Volume 2: Methods for Collecting and Analyzing Biological Assemblage and Habitat Data (RG-416)*. [Consistency with Title 30, Chapter 25 of the Texas Administrative Code, *Environmental Testing Laboratory Accreditation and Certification*, which describes Texas' approach to implementing the National Environmental Laboratory Accreditation Conference (NELAC) standards, shall be required where applicable.]					
	Start Date	Month 01	Completion Date	Month 06		
Subtask 2.2	TWRI will implement the approved QAPP. TWRI will submit revisions and necessary amendments to the QAPP as needed.					
	Start Date	Month 06	Completion Date	Month 24		
Deliverables	• 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 # 4					

Tasks, Objectives and Schedules						
Task 3	Public Outreach, Education, Information					
Costs	Federal	$12,550	Non-Federal	$8,367	Total	$20,917
Objective	To educate, engage, and gain stakeholder support for the characterization of the Pond Creek Watershed					
Subtask 3.1	Public Education – TWRI will host public education and outreach events in the project area once annually. Hosting these events requires providing coordination and logistical support even though the program itself is already supported through other sources of funding. Such events can include but should not be limited to: • Lone Star Healthy Streams • Texas Well Owner Network • Texas Watershed Stewards • Texas Riparian and Stream Ecosystem Education					
	Start Date	Month 01	Completion Date	Month 24		
Subtask 3.2	Meet with Key Stakeholders in the Watershed – TWRI will identify and meet with key stakeholders in the watershed to inform them of water quality issues. TWRI will participate in at least two key stakeholder meetings per year.					
	Start Date	Month 01	Completion Date	Month 24		
Subtask 3.3	Dissemination of Project Information – TWRI will inform the public about upcoming meetings and educational events, location of educational materials, status of ongoing projects, current water quality and how the public/stakeholders can address water quality issues. Activities may include, but are not limited to: • Project website (updated quarterly) • Public events (project information and presentations at events) as appropriate • Maintaining an email list for notifying stakeholders of activities and meetings • Public press releases TSSWCB must approve all announcements, letters and publications prior to distribution.					
	Start Date	Month 01	Completion Date	Month 24		
Deliverables	• Stakeholder group and public meeting agendas, minutes, sign-in sheets, and other available documentation (as necessary) • Disseminate project information through: o Project website (updated quarterly) o Public events (project information and presentations) o Email lists • Public press releases					

Tasks, Objectives and Schedules						
Task 4	Watershed Characterization – Data Evaluation					
Costs	Federal	$48,528	Non-Federal	$32,352	Total	$80,880
Objective	To collate data and information to identify the causes of water quality impairments and issues in the watershed and to identify the sources of pollution contributing to water quality impairments and issues.					
Subtask 4.1	Assemble Existing Data and Information – TWRI will gather existing data and information pertaining to water quality impairments and issues in the watershed. This data and information will, to the extent possible: • Support GIS analysis • Calculate LDCs • Describe relevant watershed characteristics • Identify causes and sources of water quality impairments and issues					
	Start Date	Month 06	Completion Date	Month 18		
Subtask 4.2	Analyze Existing Data and Information – TWRI will analyze the existing data and information and, to the extent possible, characterize water quality conditions, watershed conditions, and sources of pollution contributing to water quality impairments and issues. The analysis will: • Lead to an understanding of where and when water quality impairments and/or issues occur and what could be causing the impairments and issues • Allow for data and information to be assembled into a data inventory for the watershed. The data and information will be presented in appropriate formats including graphs, tables, and maps. (See EPA Handbook, Chapter 5)					
	Start Date	Month 06	Completion Date	Month 18		
Subtask 4.3	Flow Estimation – TWRI will compare qualitative streamflow estimation methods to determine the method best suited for estimating streamflow. An analysis of the comparison will be included in the Watershed Characterization Report.					
	Start Date	Month 06	Completion Date	Month 18		
Subtask 4.4	Watershed Characterization – Data Collection Report – TWRI will develop a report summarizing information developed under Task 4 to characterize the watershed and identify causes and sources of pollution. The report will be submitted for approval to the TSSWCB project manager.					
	Start Date	Month 18	Completion Date	Month 24		
Deliverables	• Draft and Final Watershed Characterization Report					

Project Goals (Expand from Summary Page)

To address the concerns and impairments most efficiently, the watershed must be characterized to identify potential causes and sources. It is a goal of this project to identify existing data and identify data gaps for characterization. To gain public support of the project, TWRI will facilitate a stakeholder group (if determined to be appropriate) and identify objectives and goals needed for the watershed planning process. This will also include hosting public education events where stakeholders will be educated on water quality and mitigation strategies. Ultimately, it is the goal of this project to accomplish Element A and initiate Element B of EPAs Nine Elements for Watershed Plans found in the Handbook for Developing Watershed Plans to Restore and Protect our Waters.

Measures of Success (Expand from Summary Page)

Overall, this project will be successful when stakeholders have contributed to a consensus decision of goals, objectives, and indicators for addressing the water quality issues in the watershed. Additionally, this project will be successful when the watershed has been characterized through data aggregation and analysis efforts, identifying potential causes and sources of impairments, and loadings have been calculated. Progress will be reported in quarterly progress reports and results will be provided in a final task report.

2022 Texas NPS Management Program **Reference (Expand from Summary Page)**
Components, Goals, and Objectives
Component 1: Explicit short- and long-term goals, objectives … that protect surface and groundwater. o LTG 1: Focus NPS abatement efforts, implementation strategies, and available resources in watersheds identified as impacted by nonpoint source pollution o LTG 2: Support the implementation of state, regional and local programs to prevent NPS pollution through assessment, implementation, and education. o LTG 6: Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approaches to manage nonpoint source pollution. o LTG 7: Increase overall public awareness of NPS issues and prevention activities o LTG 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 o STG 1: Data Collection and Assessment: coordinate with appropriate federal, state, regional, and local entities…. Where additional information may be needed o Objective A: Identify surface water bodies … that need additional information to characterize non-attainment of designated uses and water quality standards o Objective C: Conduct special studies to determine sources of NPS pollution and gain information to target water quality planning and BMP implementation. o STG 3: Education: Conduct education and technology transfer activities to help increase awareness of NPS pollution and prevent activities contributing to the degradation of water bodies, including aquifers, by NPS pollution o Objective A: Enhance existing outreach programs at the state, regional and local levels to maximize the effectiveness of NPS education o Objective B: Administer programs to educate citizens about water quality and their potential role in causing NPS pollution o Objective D: Conduct outreach through the CRP, SWCDs, and others 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. o 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 to appropriate state, …, regional and local entities, private sector groups and federal agencies.
Component 3: Balanced approach that emphasizes both state-wide nonpoint source programs and on-the-ground management of individual watersheds.
Component 7: Manage and implement the NPS program efficiently and effectively, including necessary financial management.

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				
Federal	$	83,669	% of total project	60%
Non-Federal	$	55,779	% of total project	40%
Total	$	139,448	Total	100%

Category	Federal	Non-Federal	Total
Personnel	$ 47,188	$ 14,423	$ 61,611
Fringe Benefits	$ 17,579	$ 4,263	$ 21,842
Travel	$ 488	$ 0	$ 488
Equipment	$ 0	$ 0	$ 0
Supplies	$ 500	$ 0	$ 500
Contractual	$ 0	$ 0	$ 0
Construction	$ 0	$ 0	$ 0
Other	$ 7,000	$ 0	$ 7,000
Total Direct Costs	$ 72,755	$ 18,686	$ 91,441
Indirect Costs (≤ 15%)	$ 10,914	$ 37,093	$ 48,007
Total Project Costs	$ 83,669	$ 55,779	$ 139,448

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 47,188	Research Specialist II: $58,627 annually, 4.0 mo. - $20,385 TBD Program Manager: $78,614 annually, 0.5 mo. - $3,351 TBD Quality Assurance: $75,000 annually, 0.5 mo. - $3,197 TBD Research Associate: $60,000 annually, 4 mo. - $20,255 *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.)
Fringe Benefits	$ 17,579	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. *(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.)
Travel	$ 488	6 Trips to watershed for meetings/trainings @ state mileage rate est. @ 130 mi/trip
Equipment	$ 0	N/A
Supplies	$ 500	Misc project supplies Supplies for stakeholder meetings (handouts, signs, sign in sheets, pens, markers)
Contractual*	$ 0	N/A
Construction	$ 0	N/A
Other	$ 7,000	ENVI GIS License - $1,000 Facility Rental Fees - $400 Press Releases - $1,400 Communications Report Editing - $600 Communications Website Maintenance - $3,600
Indirect	$ 10,914	Indirect costs are calculated at 15% of total federal direct costs per the RFP limitation. $72,755 * 0.15 = $10,914

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 14,423	Associate Director: $103,721 annually, 1.6 mo. (6.65% per year) - $14,423 *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.)
Fringe Benefits	$ 4,263	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. *(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.)
Travel	$ 0	N/A
Equipment	$ 0	N/A
Supplies	$ 0	N/A
Contractual*	$ 0	N/A
Construction	$ 0	N/A
Other	$ 0	N/A
Indirect	$ 37,093	Indirect costs (IDC) on the matching funds are calculated at Texas A&M AgriLife Research's negotiated IDC rate of 52.5% for years 1 and 2 of modified total direct costs (MTDC), which includes personnel, fringe, travel, supplies, other and up to $25,000 of each subaward. $18,686 * 0.525 = $9,810 Unrecovered IDC is calculated at 52.5% - 15% = 37.5% of MTDC for years 1 and 2. $72,755 * 0.375 = $27,283