Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY 2021 Workplan 21-08

SUMMARY PAGE						
Title of Project	Implementation of the Mid and Lower Cibolo Creek Watershed Protection Plan					
Project Goals	• Deliver educational programs and materials to stakeholders • Identify potential funding sources and work to secure BMP Implementation funding • Maintain public engagement through meetings, mailings, and newsletters					
Project Tasks	(1) Project Administration; (2) Engagement, Support, and Facilitation of WPP Implementation					
Measures of Success	• Successful delivery of educational programs • Dissemination of mailings • Implementation of BMPs in the watershed • Stakeholder involvement and feedback					
Project Type	Implementation (X); Education ( ); Planning ( ); Assessment ( ); Groundwater ( )					
Status of Waterbody on *2020 Texas Integrated Report*	Segment ID	Parameter of Impairment or Concern	Category			
	1902_01	bacteria	5b			
	1902_02	bacteria	5b			
	1902_03	bacteria, impaired fish community	5b, CN			
	1902_04	nitrate	CS			
	1902_05	nitrate, total phosphorus	CS, CS			
	1902C_01	bacteria, depressed dissolved oxygen, total phosphorus	5b, 5c, CS			
	1902A_01	bacteria, total phosphorus	CN, CS			
	1902A_03	bacteria, nitrate, total phosphorus	CN, CS, CS			
	1902A_04	bacteria, nitrate, total phosphorus	CN, CS, CS			
	1913_01	nitrate, total phosphorus	CS, CS			
	1913_02	nitrate, total phosphorus	CS, CS			
	1902B_01	ammonia, nitrate, total phosphorus	CS, CS, CS			
Project Location (Statewide or Watershed and County)	Mid and Lower Cibolo Creek watershed in Guadalupe, Wilson, Bexar, Karnes, and Comal counties					
Key Project Activities	Hire Staff ( ); Surface Water Quality Monitoring ( ); Technical Assistance ( ); Education (X); Implementation (X); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning ( ); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
2017 Texas NPS Management Program Reference	• Component 1: LTG Objectives 1, 2, 3, 6, 7, 8 STG 2 Objectives A, B, D; STG 3 Objectives A, B, D, G • Component 2 • Component 3 • Component 4 • Component 5					
Project Costs	Federal	$168,310	Non-Federal	$112,206	Total	$280,516
Project Management	• Texas A&M AgriLife Research					
Project Period	November 17 , 2021 – November 30, 2025					

Part I – Applicant Information

Applicant							
Project Lead	Dr. Lucas Gregory						
Title	Assistant Director and QA Specialist						
Organization	Texas Water Resources Institute						
E-mail Address	LFGregory@ag.tamu.edu						
Street Address	579 John Kimbrough, 2260 TAMU						
City	College Station	County	Brazos	State	TX	Zip Code	77843
Telephone Number	979-845-7869			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 will execute implementation of the Mid and Lower Cibolo Creek Watershed Protection Plan through coordination with local stakeholders. TWRI will also facilitate education and outreach activities in the watershed.
San Antonio River Authority (SARA)	SARA will assist in implementation efforts in the Mid and Lower Cibolo Creek Watershed. SARA will help facilitate education and outreach activities and share outreach materials throughout the watershed.

Part II – Project Information

Project Type							
Surface Water	X	Groundwater					
Does the project implement recommendations made in: (a) a completed WPP; (b) an adopted TMDL; (c) an approved I-Plan; (d) a Comprehensive Conservation and Management Plan developed under CWA §320; (e) the *Texas Coastal NPS Pollution Control Program*; or (f) the *Texas Groundwater Protection Strategy*?				Yes	X	No	
If yes, identify the document.	Mid and Lower Cibolo Creek Watershed Protection Plan						
If yes, identify the agency/group that developed and/or approved the document.	TWRI, SARA, TSSWCB			Year Developed	2017		

Watershed Information				
Watershed or Aquifer Name(s)	Hydrologic Unit Code (12 Digit)	Segment ID	Category on 2020 IR	Size (Acres)
Mid Cibolo Creek	121003040304 121003040301 121003040302 121003040305 121003040303	1913	CS	**27,764.88**
Lower Cibolo Creek	121003040405 121003040403 121003040402 121003040404 121003040401	1902	5b, 5c	**349,379.09**

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: *2020 Texas Integrated Report,* Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.

2013 San Antonio River Basin Clean Rivers Program Basin Summary Report
http://www.sara-tx.org/public_resources/library/documents/water_quality_monitoring/2013BSR-web.pdf

Ammonia, Nitrite, Ortho-phosphorus, and Total phosphorus could be the result of wastewater treatment plant discharge; low flows and natural weathering and leaching of sedimentary rocks, soils, and salt deposits; runoff of inadvertent over-application of fertilizers; and organic matter carried to the stream with stormwater runoff.

Causes of *E. coli* impairment can be attributed to sewer breaks and overflows, poorly maintained septic systems, stormwater runoff from livestock operations, and wildlife.

Impairments

SegID 1902: Lower Cibolo Creek: From the confluence with the San Antonio River in Karnes County to a point 100 meters (110 yards) downstream of IH-10 in Bexar/Guadalupe County

Parameter Category Year
Bacteria 5b 2004

1902_01: Lower 5 miles of segment
1902_02: From 5 miles upstream of confluence with the San Antonio River to FM 541
1902_03: From FM 541 to confluence with Clifton Branch

SegID 1902C: Clifton Branch: From the confluence of the Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale.

Parameter Category Year
Bacteria 5c 2014

1902C_01: From the confluence of Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale

Parameter Category Year
Depressed dissolved oxygen 5c 2014

1902C_01: From confluence of the Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale

Concerns

SegID 1902: Lower Cibolo Creek: From the confluence with the San Antonio River in Karnes County to a point 100 meters (110 yards) downstream of IH-10 in Bexar/Guadalupe County

Parameter Level of Concern
Impaired fish community CN

1902_03: From FM 541 to confluence with Clifton Branch

Parameter Level of Concern
Nitrate CS

1902_04: From confluence with Clifton Branch to the confluence with Elm Creek
1902_05: Upper end of segment

Parameter Level of Concern
Total Phosphorus CS

1902_05: Upper end of segment

SegID 1902A: Martinez Creek: Perennial stream from the confluence with Escondido Creek upstream to Binz-Engleman Road

Parameter Level of Concern
Bacteria CN

1902A_01: From confluence with Cibolo Creek to confluence with Salatrillo Creek
1902A_03: From confluence with Escondido Creek to about 1.9 miles downstream of IH-10
1902A_04: From approximately 1.1 km downstream of FM 1516 to Binz-Engleman Road

Parameter Level of Concern
Nitrate CS

1902A_03: From confluence with Escondido Creek to about 1.9 miles downstream of IH-10
1902A_04: From approximately 1.1 km downstream of FM 1516 to Binz-Engleman Road

Parameter Level of Concern
Total Phosphorus CS

1902A_01: From confluence with Cibolo Creek to confluence with Salatrillo Creek
1902A_03: From confluence with Escondido Creek to about 1.9 miles downstream of IH-10
1902A_04: From approximately 1.1 km downstream of FM 1516 to Binz-Engleman Road

SegID 1902C: Clifton Branch: From the confluence of the Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale

Parameter Level of Concern
Depressed dissolved oxygen CS

1902C_01: From the confluence of Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale

Parameter Level of Concern
Total phosphorus CS

1902C_01: From the confluence of Lower Cibolo Creek upstream to the headwater 0.6 miles upstream of Wilson CR 424 north of Stockdale

SegID 1913: Mid Cibolo Creek: From a point 100 meters (110 yards) downstream of IH-10 in Bexar/Guadalupe County to the Missouri-Pacific Railroad bridge west of Bracken in Comal County

Parameter Level of Concern
Nitrate CS

1913_01: From 100 M downstream of IH-10 up to unnamed tributary approximately 0.3 miles upstream of Weir Road, Bexar County, Texas
1913_02: From the confluence with unnamed tributary approximately 0.3 miles upstream of Weir Road, Bexar County, Texas up to 100 meters upstream of the Cibolo Creek Municipal WWTP

Parameter Level of Concern
Total phosphorus CS

1913_01: From 100 M downstream of IH-10 up to unnamed tributary approximately 0.3 miles upstream of Weir Road, Bexar County, Texas
1913_02: From the confluence with unnamed tributary approximately 0.3 miles upstream of Weir Road, Bexar County, Texas up to 100 meters upstream of the Cibolo Creek Municipal WWTP.

Project Narrative

Problem/Need Statement

The 2020 303(d) List identifies the Lower Cibolo Creek (Segment 1902) as exceeding the contact recreation criterion for *E. coli* bacteria. It has been listed as impaired since 2004. To address the high bacteria levels, as well as low levels of depressed dissolved oxygen present in the watershed, a WPP was developed and accepted in August 2020. This plan includes the impaired segments as well as surrounding tributaries that have several water quality concerns. The ultimate water quality goal for this segment is to reduce bacterial concentrations to within acceptable risk levels for the stream to meet the Primary Contact Recreation Standard 1. (https://www.sara-tx.org/public_resources/library/documents/water_quality_monitoring/2013BSR-web.pdf).

The Mid Cibolo and Lower Cibolo Creek have seen increased development in the residential sector as well as increased activity because of hydraulic fracturing activity in the Eagle Ford Shale formation. With this increased development, it is important that the plan being developed to protect the watershed's creeks and streams continue to be supported and implemented to protect the biological and riparian resources in the Mid and Lower Cibolo Creek watershed.

To ensure the overall success of the WPP from development to implementation, education and outreach programs will occur throughout the watershed. Programs such as the Texas Watershed Stewards, Introduction to Septic Systems for homeowners and Texas Riparian and Stream Ecosystem Education have been performed during the WPP development process in the watershed. These education programs allow stakeholders to gain knowledge on water quality issues in the area and what can be done to mitigate water quality impacts. Education and outreach will continue to play a crucial role during implementation of the WPP.

Coordinating the delivery of these programs and tracking the successful implementation of the WPP requires a concerted effort. Continued support for the implementation of the Mid and Lower Cibolo Creek WPP is important because strong connections have been started with locals who live and work in the watershed. We have an engaged stakeholder group, and need to maintain these connections with the community to keep them actively interested in WPP implementation. This will provide greater fluidity from planning to implementation, increasing the likelihood for adoption of BMPs discussed in the WPP.

Project Narrative

General Project Description (Include Project Location Map)

TWRI will continue working with key stakeholders and partner agencies to facilitate implementation outlined in the watershed-based plan. TWRI will serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate WPP implementation. TWRI will coordinate with the general stakeholder group to seek input and recommendations on needed activities and educational programs in the watershed and continue to support WPP implementation efforts. TWRI will continue to assist stakeholders to implement management measures to improve water quality and acquire resources to enable implementation and work with state and federal agencies, as appropriate, to bring technical and financial assistance to the watershed.

Education and outreach were identified as a key component of WPP success to continue to educate stakeholders on management strategies that can reduce NPS pollution and will be a focus of this project. Outreach and education coordination efforts by TWRI will facilitate and support public participation by private individuals and local officials during implementation. TWRI will develop publications, factsheets, website content, short videos and other materials to

promote and communicate watershed pollution prevention efforts. Additionally, TWRI will coordinate and conduct water resources education and outreach efforts across the watershed, organizing educational programs such as the Riparian and Stream Ecosystem Training, Lone Star Healthy Streams, Texas Watershed Stewards and Texas Well Owner Network and various other programs identified in subtask 3.6.

The *Coordinating Implementation of the Watershed Protection Plan for Mid and Lower Cibolo Creek* project #19-52 engaged a local stakeholder group to implement portions of the Mid and Lower Cibolo Creek WPP that was accepted by EPA in August 2020. The WPP identifies implementable best management practices that are based on the goals of water quality improvement and watershed protection.

The outcomes of the project will include continuing to work with local stakeholders to identify areas for implementation activities discussed in the WPP. This will be accomplished by targeted meeting with stakeholders in the watershed and continuing to deliver educational programs and distribute outreach materials throughout the watershed with the goal to help improve water quality. An important benefit of the project is the identification of implementation strategies that get ahead of growth so that it can be directed in an environmentally safe and community-accepted direction.

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	$20,197	Non-Federal	$13,465	Total	$33,662
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 1	Completion Date	Month 48		
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 48		
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 48		
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 48		
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	Engagement, Support, and Facilitation of WPP Implementation					
Costs	Federal	$168,310	Non-Federal	$112,207	Total	$280,517
Objective	To facilitate continued stakeholder engagement in the watershed planning process to ensure successful implementation of the WPP and track implementation.					
Subtask 2.1	TWRI will assist governmental and non-governmental organizations (i.e. responsible parties in the WPP) in the identification and acquisition of resources (financial and technical) to enable WPP implementation. TWRI will actively seek and pursue funding opportunities and work with partners to develop grant proposals. TWRI will work with state and federal agencies, as appropriate, to bring technical and financial resources to the watershed.					
	Start Date	Month 1	Completion Date	Month 48		
Subtask 2.2	TWRI will facilitate communication with stakeholders to engage the public and affected entities in implementation. TWRI will use all appropriate communication mechanisms including direct mail, email, and a project website. TWRI will develop and disseminate general project informational materials, including, but not limited to flyers, letters, factsheets, news releases, and other appropriate promotional publications. TWRI will work to produce online materials such as short videos, infographics and other materials that can be sent through social media to engage stakeholders in between meetings and increase reach around the watershed.					
	Start Date	Month 1	Completion Date	Month 48		

Subtask 2.3	TWRI will attend and participate in other public meeting, as appropriate, to communicate project goals, activities, and accomplishments to affected parties. Such meetings may include, but are not limited to, city councils, county commissioners' courts, Clean River Program Basin Steering Committee and Coordinated Monitoring, local Soil and Water Conservation Districts (SWCDs), and other appropriate meetings of critical watershed stakeholder groups.			
	Start Date	Month 1	Completion Date	Month 48
Subtask 2.4	TWRI will 1) evaluate and track progress toward achieving milestones established in the WPP; and 2) assess water quality data collected through the Clean Rivers Program and other data collection to track efforts in relation to achieving load reductions.			
	Start Date	Month 1	Completion Date	Month 48
Subtask 2.5	TWRI will facilitate public participation and stakeholder involvement in the watershed, specifically by facilitating Watershed Coordination Committee (twice per year) and work group (as needed) meetings to provide regular updates on progress to implement the WPP, identify implementation funding, status of monitoring efforts, and progress towards sustaining and improving water quality. Input and recommendations on needed activities will be sought. TWRI will coordinate meetings, secure locations, and prepare and disseminate meeting notices and agendas. Meeting summaries will be prepared and posted to the project website. TWRI will provide all interested and responsible parties with implementation updates.			
	Start Date	Month 1	Completion Date	Month 48
Subtask 2.6	TWRI will develop and distribute an annual newsletter designed to keep landowners and entities informed regarding ongoing implementation activities including progress toward achieving milestones in the WPP. The newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed.			
	Start Date	Month 1	Completion Date	Month 48
Subtask 2.7	TWRI will maintain a list of watershed stakeholders and affected parties for engaging the public in the implementation process. The database created and used during the WPP development process will be added to as needed. The database will represent a cross section of watershed landowners, citizens, local and regional governmental entities and elected officials, state and federal agencies, and environmental and special interest groups.			
	Start Date	Month 1	Completion Date	Month 48
Subtask 2.8	TWRI will coordinate education and outreach activities as identified in the implementation plan. TWRI will make presentations on general NPS pollutions to community organizations as well as support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by Texas A&M AgriLife Extension Service, USDA-NRCS, and/or SWCD's in the watershed.			
	Start Date	Month 1	Completion Date	Month 48

<table>
<tr><td>Subtask 2.9</td><td colspan="4">TWRI will coordinate and conduct water resources and related environmental outreach/education efforts across the watershed, as identified in the WPP. TWRI will work to bring educational opportunities, both online and in person to the watershed to increase citizen awareness of NPS pollution and best management strategies to protect Cibolo Creek. Trainings will be offered to increase volunteer and citizen science work in the watershed as desired by local stakeholders. Programs that may be delivered in the watershed include, but are not limited to:
Healthy Lawns and Healthy Waters
Introduction to Septic Systems for Homeowners
Aerobic system operation and maintenance workshops for homeowners
Riparian management workshops for landowners and land managers
Texas Watershed Stewards Program
Texas Well Owner Network training and well screening
Feral Hog Management Workshop
Citizen Science Virtual Training
Texas Stream Team Training
San Antonio River Authority’s Watershed Wise program
TWRI will work with the entities that administer/fund these programs to try to direct delivery of these programs to the watershed, depending on priorities of those entities and programs.</td></tr>
<tr><td></td><td>Start Date</td><td>Month 1</td><td>Completion Date</td><td>Month 48</td></tr>
<tr><td>Deliverables</td><td colspan="4">Documentation of resource opportunities identified, applied for, and resources obtained to support plan implementation
Communication materials, as developed and disseminated, including flyers, letters, news releases, etc.
List of other meetings attended and dates with brief summary of topics discussed and action needed included in QPRs
Track implementation progress
Notices, agendas, meeting materials, attendance lists, and summaries from public meetings
Annual newsletter developed and distributed to stakeholders
Stakeholder contact list, updated as needed
Notices, agendas, meeting materials, attendance lists, and summaries from workshops, field tours, demonstrations, site tours, or educational events attended
Educational and promotional materials, as developed and disseminated</td></tr>
</table>

Project Goals (Expand from Summary Page)

1. Facilitate watershed stakeholders and foster coordinated assistance activities between cities, counties, TSSWCB, local SWCDs, and NRCS by providing a presence in the watershed.
2. Conduct public meetings to provide updates on progress, seek stakeholder input and recommendations regarding needed activities, and encourage citizen participation.
3. Support and facilitate stakeholders in implementing management measures identified in the WPP to improve water quality, developing proposals to acquire funding for implementation, and facilitating education programs to encourage adoption of BMPs.
4. Work with state and federal agencies, as appropriate, to bring technical and financial assistance to the watersheds.
5. Coordinate and conduct water resources education and outreach across the watershed by developing publications and website content to promote and communicate watershed efforts, and by organizing training programs.

Measures of Success (Expand from Summary Page)

Measures of success include:

1. Technical assistance provided to the watershed stakeholders through identification and acquisition of resources, funding opportunities pursued, and grant proposals developed.
2. Increased watershed stewardship among stakeholders.
3. Increased knowledge of citizens, landowners, and agricultural producers of management measures identified in the WPP through outreach and education efforts in the watershed.
4. Continued operation and maintenance of the project website to announce relevant activities, project updates, and other activities relevant to the WPP implementation process.

2017 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 nonpoint source pollution through assessment, implementation, and education. o Objective 1 – Focus nonpoint source abatement efforts, implementation strategies, and available resources in watersheds and aquifers identified as impacted by nonpoint source pollution. o Objective 2 – Support the implementation of state, regional, and local programs to prevent nonpoint source pollution through assessment, implementation, and education. o Objective 3 – Support the implementation of state, regional, and local programs to reduce nonpoint source pollution, such as the implementation of strategies defined in TMDL I-Plans, WPPs, and other water planning efforts in the state. o Objective 6 – Develop partnerships, relationships, memoranda of agreement, and other instruments to facilitate collective, cooperative approaches to manage nonpoint source pollution. o Objective 7 – Increase overall public awareness of nonpoint source issues and prevention activities. o 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 Goal Two – Implementation o Objective A – Work with regional and local entities to determine priority areas and develop and implement strategies to address nonpoint source pollution in those areas o Objective D – Implement TMDL I-Plans, WPPs, and other state, regional, and local plans developed to restore and maintain water quality in water bodies identified as impacted by nonpoint source pollution. • Short-Term Goal Three – Education o Objective B – Administer programs to educate citizens about water quality and their potential role in causing nonpoint source pollution. o Objective D – Conduct outreach through the CRP, AgriLife Extension, 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 nonpoint source pollution.
Component 2 – Working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities, private sector groups, and federal agencies.
Component 3 – Combination of statewide nonpoint source 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 their watersheds impaired by NPS… Progressively address these identified waters by conducting more detailed watershed assessments and developing watershed plans (e.g., WPPs or TMDLs and Implementation Plans), and then by implementing the plans.

Estimated Load Reductions Expected (Only applicable to Implementation Project Type)
Estimated load reductions will vary depending on implementation activities brought to watershed.

EPA State Categorical Program Grants – Workplan Essential Elements FY 2018-2022 EPA Strategic Plan Reference
Strategic Plan Goal – Goal 1 Core Mission: Deliver a cleaner, safer, and healthier environment for all Americans and future generations by carrying out the Agency's core mission.
Strategic Plan Objective – Objective 1.2 Provide for Clean and Safe Water to ensure waters are clean through improved water infrastructure and, in partnership with states and tribes, sustainably manage programs to support drinking water, aquatic ecosystems, and recreational, economic, and subsistence activities.

Part III – Financial Information

Budget Summary			
Federal	$ 168,310	% of total project	60%
Non-Federal	$ 112,206	% of total project	40%
Total	$ 280,516	Total	100%

Category	Federal	Non-Federal	Total
Personnel	$ 83,752	$ 33,629	$ 117,381
Fringe Benefits	$ 28,702	$ 7,622	$ 36,324
Travel	$ 7,872	$ 0	$ 7,872
Equipment	$ 0	$ 0	$ 0
Supplies	$ 1,400	$ 0	$ 1,400
Contractual	$ 0	$ 0	$ 0
Construction	$ 0	$ 0	$ 0
Other	$ 24,630	$ 0	$ 24,630
Total Direct Costs	$ 146,356	$ 41,251	$ 187,607
Indirect Costs (≤ 15%)	$ 21,954	$ 21,244	$ 43,198
Unrecovered IDC	$ 0	$ 49,711	$ 49,711
Total Project Costs	$ 168,310	$ 112,206	$ 280,516

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 83,752	TBD Program Manager: $64,970 annually @ 3 months (8.33% per year) – $16,728 TBD Research Specialist II: $55,278 annually @ 14.13 months (40% per year) – $67,024 *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.
Fringe Benefits	$ 28,702	Fringe for faculty and staff is calculated at 18.5% salary plus $771 per month. Fringe for students is calculated at 11% salary plus $558 per month. *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.
Travel	$ $ 7,872	Trips to educational programs, stakeholder meetings, and other implementation meetings around the watershed: 8 trips per year, 350 miles roundtrip @ 0.55 per mile for state vehicles. Resources are included for lodging and per diem for overnight travel. Per diem: state rate up to 24 days: $64 x 24 = $1,536 Lodging up to 12 nights: $ 143 x 12 = $ 1,716 Mileage: state rate up to 24 trips @ 350 miles per trip: 24 x 350 x 0.55 = $4,620
Equipment	$ 0	N/A
Supplies	$ 1,400	Office supplies ($285/yr for pens, paper, toner, etc.) and supplies for meetings and educational programs ($545, nametags, sandwich board signs, etc.)
Contractual*	$ 0	N/A
Construction	$ 0	N/A
Other	$ $24,630	Communications Team Services ($) ($14,558) Computer Resources ($1,872) Postage ($2,250) Software licenses ($750) Printing of outreach materials ($3,000) Facility rental ($2,200)
Indirect	$ 21,954	15% Total Direct Costs (TDC)

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 33,629	TWRI Director: $209,180 annually @ 1.82 months (5.05% per year) – $33,629 *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	$ 7,622	Fringe for faculty and staff is calculated at 18.5% salary plus $771 per month. Fringe for students is calculated at 11% salary plus $558 per month. *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.
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	$ 21,244	Texas A&M AgriLife Research's federally negotiated indirect cost rate (IDC) is 51.5% of modified total direct costs (MTDC). MTDC includes up to $25,000 of each subcontract and excludes tuition, facility rental and equipment over $5,000.
Unrecovered IDC	$ 49,711	Unrecovered IDC: 51.5% MTDC – 15% TDC - IDC on MTDC: $139,156 MTDC * 51.5% = $71,665 - IDC on TDC: $146,356 TDC * 15% = $21,954 Total Unrecovered IDC: $71,665 – $21,954 = $49,711