Texas State Soil and Water Conservation Board
Clean Water Act §319(h) Nonpoint Source Grant Program
FY2011 Workplan 11-06

SUMMARY PAGE						
Title of Project	Water Quality Monitoring in the Geronimo Creek Watershed and Facilitation of the Geronimo and Alligator Creeks Watershed Partnership					
Project Goals	• Generate data of known and acceptable quality for surface and ground water quality monitoring of main stem and tributary stations • Collect water quality data for use in assessing water quality improvement and progress in achieving restoration • Communicate water quality conditions to the public and the Partnership in order to support adaptive management and to expand public knowledge on Geronimo and Alligator Creeks water quality data • To conduct regular stakeholder meetings to encourage citizen participation, provide partners with updates on progress, and seek stakeholder input and recommendations on needed activities • Coordinate and conduct water resources and related environmental outreach/education efforts across the watershed					
Project Tasks	1) Project Administration 2) Quality Assurance 3) Support and Facilitation of WPP Implementation 4) Water Quality Data Collection and Analysis					
Measures of Success	• Data of known and acceptable quality are generated for surface water quality monitoring of main stem and tributary stations and groundwater monitoring of shallow wells from the Leona Aquifer • Water quality data is communicated to the public and the Partnership • Increased watershed stewardship among Geronimo Creek watershed stakeholders • Provide technical assistance to the Geronimo Creek Partnership • Evaluate progress toward achieving milestones and develop a draft addendum to the WPP • Maintain project webpage to communicate water quality data, provide information to stakeholders, and provide access to education and outreach resources					
Project Type	Implementation ( ); Education (X); Planning (X); Assessment (X); Groundwater ( )					
Status of Waterbody on *2008 Texas Water Quality Inventory and 303(d) List*	Segment ID 1804A	Parameter Bacteria nitrate-nitrogen	Category 5c CN			
Project Location (Statewide or Watershed and County)	Geronimo Creek Watershed in Guadalupe and Comal Counties					
Key Project Activities	Hire Staff ( ); Surface Water Quality Monitoring (X); Technical Assistance ( ); Education (X); Implementation ( ); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning (X); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
Texas NPS Management Program Elements	• Element1 LTGs 1, 2, 3, 6 • Element 1 STGs 1B, 1E, 3F • Element 3					
Project Costs	Federal	$292,421	Non-Federal	$191,435	Total	$483,856
Project Management	Guadalupe-Blanco River Authority					
Project Period	November 1, 2011 – October 31, 2013					

Part I – Applicant Information

Applicant							
Project Lead	Debbie Magin						
Title	Director of Water Quality Services						
Organization	Guadalupe-Blanco River Authority						
E-mail Address	dmagin@gbra.org						
Street Address	933 East Court Street						
City	Seguin	County	Guadalupe	State	TX	Zip Code	78155
Telephone Number	830-379-5822			Fax Number	830-372-2757		

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.
Guadalupe-Blanco River Authority (GBRA)	Provide project administration, coordination, water quality monitoring, data and analysis review and WPP development (Tasks 1-4).
Texas AgriLife Extension Service, Department of Soil and Crop Sciences (Extension)	Continue to work with stakeholders, partner agencies and organizations to obtain acceptance of a WPP by EPA and to facilitate implementation of the WPP (Task 3).

Part II – Project Information

Project Type							
Surface Water	X	Groundwater	X				
Does the project implement recommendations made in (a) a completed WPP, (b) an adopted TMDL, (c) an approved I-Plan, or (d) a Comprehensive Conservation and Management Plan developed under CWA §320?				Yes		No	X
If yes, identify the document.							
If yes, identify the agency/group that developed and/or approved the document.				Year Developed			

Watershed Information				
Watershed Name(s)	Hydrologic Unit Code (8 Digit)	Segment ID	305(b) Category	Size (Acres)
Geronimo Creek (including its tributary, Alligator Creek)	121000202	1804A	5c	44,152

Water Quality Impairment
Describe all known causes (pollutants of concern) of water quality impairments or concerns from any of the following sources: *2008 Texas Water Quality Inventory and 303(d) List*, draft *2010 Texas Integrated Report,* Clean Rivers Program Basin Summary/Highlights Reports or other documented sources.
Geronimo Creek is listed as impaired on the 2004 and 2006, 2008 303(d) Lists as well as the draft 2010 303(d) List due to bacterial contamination. The data from the period of record showed that the geometric mean for *E. coli* bacteria exceeded the stream standard. The geometric mean of Geronimo Creek based was 162 cfu/ 100 mL. The stream was not assessed in the 2008 assessment. The geometric mean of the *E. coli* data collected on Geronimo Creek between December 1, 2001 and November 30, 2008 (81 samples) and assessed in 2010 by TCEQ, was 160.9 organisms per 100 mL, slightly lower than reported in the 2006 assessment. The Clean Rivers Program Basin Highlights Reports for the Guadalupe River Basin since 2004 comment on the elevated nitrate-nitrogen concentrations, suggesting that the source appears to be groundwater seepage. The private wells that have been monitored in the area are shallow and have concentrations in excess of 20 mg/L.

Project Narrative

Problem/Need Statement

In 2007, the TSSWCB Regional Watershed Coordination Steering Committee, using established criteria, ranked Geronimo Creek in the top 3 watersheds for selection of WPP development. The TSSWCB project 08-06 entitled, *Development of a Watershed Protection Plan for Geronimo Creek,* was begun in June 2008. The project included water quality monitoring, water quality modeling and WPP development. The development of the WPP for Geronimo and Alligator Creeks has been a stakeholder driven process lead by Extension with support from the GBRA. The Geronimo and Alligator Creeks Watershed Partnership (the Partnership) Steering Committee includes local officials, land and business owners and citizens and is supported by state and federal agency partners. With technical assistance from project staff, the Steering Committee has identified issues that are of particular importance to the surrounding communities, and has contributed information on land uses and activities that has been helpful in identifying the sources of nutrient and bacterial impairments, and in guiding the development of the WPP.

Historical data identified the impairment for bacteria and a concern for nutrients. The water quality monitoring program attempted to fill gaps in the historical data but was severely hampered by the drought of 2008-09. Data collection in the project further verified that periodic elevations of *E. coli* levels continue to exist. Routine ambient water quality data is collected at one site (12576) by GBRA through the Clean Rivers Program (CRP). Through project 08-06, GBRA conducted an eighteen month water quality monitoring task that included an additional seven monthly routine ambient and six targeted stream sites on Geronimo and Alligator Creeks and three tributaries, and quarterly monitoring of two springs, three wells, and the single point source in the watershed

Currently, the Geronimo Creek WPP is under development and should be completed by the end of the calendar year 2011. As the WPP has not yet been completed and reviewed for consistency with the 9 elements, it is anticipated that WPP implementation funding through Clean Water Act §319(h) nonpoint source grants will not be requested until the FY2012 funding cycle, at the earliest. Therefore, this would result in a lapse in data collection efforts resulting in at least a 1-, if not 2-year, data gap in water quality data.

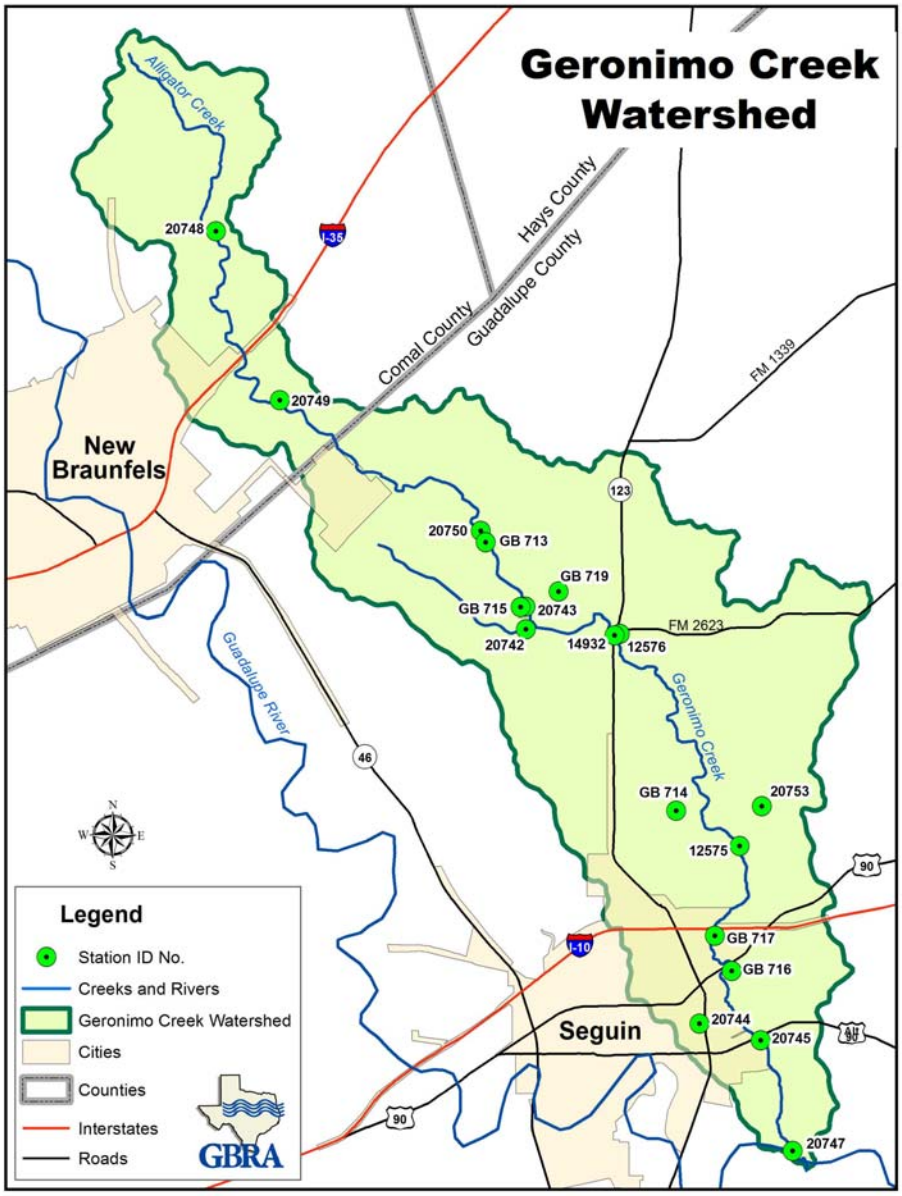
As a result, this 2-year project is warranted to provide for interim water quality data collection efforts. Maintaining an effective monitoring program will provide critical water quality data that will be used to judge the effectiveness of WPP implementation efforts and serve as a tool to quantitatively measure water quality restoration. This effort will continue stakeholder engagement through semi-annual newsletters, maintaining the project website, and hosting Partnership Steering Committee and work group meetings. Continuing these efforts is critical to effectively bridging the gap between projects that developed the Geronimo Creek WPP and beginning WPP implementation efforts.

The goal of this project is to obtain acceptance of the stakeholder-driven WPP for the Geronimo Creek watershed which satisfies the EPA's nine element guidance.

Project Narrative

General Project Description

Extension and GBRA will continue coordination with all key stakeholder groups (cities, counties, agricultural groups, local businesses, HOAs, etc.) and partner agencies (NRCS, SWCDs, TCEQ, etc.) in preparation of full implementation as outlined in the WPP. Extension and GBRA will assist governmental and non-governmental organizations in the Geronimo Creek watershed with identification and acquisition of resources to enable WPP implementation.



Extension will facilitate and coordinate education and outreach activities in the watershed to promote public participation and implementation of the WPP. This will include active use of local media outlets to communicate project planning efforts and activities, contributions to the project website, development and/or dissemination of factsheets and other educational resources, and coordination of local meetings and educational events

The sampling program will be continued in this project by retaining 7 routine monthly sites and thirteen targeted sites. The monitoring program will collect additional data, look for trends and fill data gaps identified in project 08-06. GBRA will continue to monitor the routine ambient monitoring location monthly under the CRP. Two new sites on Geronimo Creek will replace two routine/targeted sites included in project 08-06 that were determined to be ineffective due to lack of flow or proximity to other sites. One of the sites will be located at Geronimo Creek at IH10 in order to collected routine and targeted monitoring downstream of the Oak Village North Subdivision that has been known for failing septic systems and where the City of Seguin is expanding the city's wastewater collection system. The second site to be added will be on Highway 90 and near the Seguin Outdoor Learning Center (SOLC).

A comprehensive watershed approach was used to focus on the most significant potential sources of agricultural NPS pollution contributing to the current impairments, while at the same time looking ahead at potential future sources of pollution from urban and suburban growth. The outcomes of the 08-06 project included data in the form of load allocations and watershed models developed in partnerships with local stakeholders and have benefited the local governmental entities as they formulate master plans and storm water management strategies. Recommended best management practices that were identified by the steering committee, work groups and partner agencies will be prioritized for implementation. An important benefit or outcome of this project will be the identification of

implementation strategies that get ahead of growth so that it can be directed in an environmentally-safe and community-accepted direction. Through a subcontract from GBRA, Extension will continue to work with stakeholders and partner agencies and organizations to obtain acceptance of a WPP by EPA and to facilitate implementation of the WPP for the Geronimo and Alligator Creeks watersheds.

Proposed Monitoring Locations				
Station ID	Lat_dd	Long_dd	Task	Description
20744	29.576231	-97.943592	Targeted	Bear Creek at East Walnut Street near Seguin, TX
20753	29.628294	-97.925756	Targeted	Unnamed tributary at Laubach Road (CR 108) near Seguin, TX
14932	29.669657	-97.966174	Routine/Targeted	Geronimo Creek at SH 123 near Geronimo, TX
GB719	29.680122	-97.981597	Spring	Geronimo Creek headwater spring near Geronimo, TX
20742	29.671272	-97.990778	Routine/Targeted	Geronimo Creek at Huber Road near Geronimo, TX
20743	29.676511	-97.990778	Routine/Targeted	Alligator Creek at Huber Road, near Geronimo, TX
GB713	29.693906	-98.002008	Spring	Alligator Creek Headwater Spring near Geronimo, TX
20750	29.694806	-98.003058	Targeted	Alligator Creek at Barbarosa Road (CR 107A) near Geronimo, TX
20749	29.726645	-98.058403	Targeted	Alligator Creek at FM 1101 near New Braunfels, TX
20748	29.767258	-98.075817	Targeted	Alligator Creek at FM 1102 near New Braunfels, TX
20745	29.657329	-97.601895	Routine/Targeted	Geronimo Creek at Hwy 90A in Seguin
GB717	29.599128	-97.939456	Routine/Targeted	Geronimo Creek at IH10 near Seguin
GB716	29.590611	-97.934800	Routine/Targeted	Geronimo Creek at Hwy 90 (Seguin Outdoor Learning Center)
20747	29.545408	-97.918178	Routine/Targeted	Geronimo Creek at Hollub Lane
GB715	29.676419	-97.992131	Well	Water well near Alligator Creek, Huber Road
GB714	29.627383	-97.949522	Well	Water well near Geronimo Creek at Laubach Road
12576	29.670000	-97.964720	Routine(CRP)/Targeted	Geronimo Creek at Haberle Road (CRP)
12575	29.618800	-97.932000	Targeted	Geronimo Creek at FM 20

Tasks, Objectives and Schedules						
Task 1	Project Administration					
Costs	Federal	$0	Non-Federal	$30,838	Total	$30,838
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	GBRA 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 15th of January, April, July and October. QPRs shall be distributed to all project partners and posted to the project website.					
	Start Date	Month 1	Completion Date	Month 24		
Subtask 1.2	GBRA 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	GBRA 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. GBRA 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	GBRA will continue to host and maintain a website (http://geronimocreek.org/) to serve as a public clearinghouse for all project- and watershed-related information. All presentations, documents and results will be posted to this website. The website will serve as a means to disseminate information to stakeholders and the general public. Extension shall contribute content matter for the website as appropriate.					
	Start Date	Month 1	Completion Date	Month 24		
Deliverables	• Quarterly progress reports in electronic format • Reimbursement Forms and necessary documentation in hard copy format • Lists of action items from project coordination meetings • Project webpage					

Tasks, Objectives and Schedules						
Task 2	Quality Assurance					
Costs	Federal	$0	Non-Federal	$6,079	Total	$6,079
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	GBRA 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.* Consistent 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. 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)*.					
	Start Date	Month 1	Completion Date	Month 3		
Subtask 2.2	GBRA will implement the approved QAPP. GBRA will submit revisions and necessary amendments to the QAPP as needed.					
	Start Date	Month 4	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	Support and Facilitation of WPP Implementation					
Costs	Federal	$176,766	Non-Federal	$116,106	Total	$292,872
Objective	To facilitate continued stakeholder engagement in the watershed planning process as a shift is made to ensure successful implementation of the WPP					
Subtask 3.1	Extension will continue to employ a Geronimo Creek Watershed Coordinator to engage and facilitate the Geronimo Creek Watershed Partnership. In coordination with GBRA, the Watershed Coordinator will be responsible for the general oversight and coordination of all project activities, be responsible for reporting requirements and directing educational activities, and serve as the primary conduit for interaction with landowners, citizens, and entities to facilitate the implementation of the WPP. The Watershed Coordinator shall successfully complete (or have already completed) the Texas Watershed Planning Short Course. The Watershed Coordinator shall participate in Texas Watershed Coordinator Roundtables and the TSSWCB Southeast and South Central Texas Regional Watershed Coordination Steering Committee meetings, as necessary.					
	Start Date	Month 1	Completion Date	Month 24		
Subtask 3.2	Extension will facilitate public participation and stakeholder involvement in the watershed planning process, specifically by facilitating meetings of the Partnership Steering Committee (at least quarterly) and Work Groups (as needed) to provide regular updates on the status of monitoring efforts, progress in identifying implementation funding, and movement towards water quality restoration and seek input and recommendations on needed activities. Extension will coordinate meetings, secure meeting locations, prepare and disseminate meeting notices and agendas. Meeting summaries will be prepared and posted to the project website. The WC will provide counties, cities and other partners with updates on progress of implementation of the WPP, if they are unable to regularly attend Partnership Steering Committee meetings.					
	Start Date	Month 1	Completion Date	Month 24		
Subtask 3.3	Extension will assist governmental and non-governmental organizations (i.e., responsible parties in the Geronimo Creek WPP) in identification and acquisition of resources (financial and technical) to enable WPP implementation. Extension will actively seek and pursue funding opportunities and work with partners to develop grant proposals. The WC 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 24		
Subtask 3.4	Extension will 1) evaluate and track progress toward achieving milestones established in the WPP; and, 2) work with GBRA to assess water quality data collected through the Clean Rivers Program, this project, and other data collection efforts in relation to achieving load reductions. Extension will develop, publish, print, and distribute to stakeholders, a biennial addendum to the Geronimo Creek WPP that describes modifications/updates to goals and milestones, explains new understandings of sources and cause of water quality issues, documents success in achieving goals and milestones, and success in achieving water quality improvement and load reductions. As the WPP will be published in fall 2011, this draft biennial addendum would most appropriately be published in fall 2013. This draft biennial addendum will function as the Final Report for this project.					
	Start Date	Month 1	Completion Date	Month 24		
Subtask 3.5	Extension will coordinate education and outreach activities as identified in the Geronimo Creek WPP. GBRA will make presentations on the Geronimo Creek Partnership and WPP and general NPS pollution information to local schools and community organizations. Extension will support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by AgriLife Extension, USDA-NRCS, and/or SWCDs for the Geronimo Creek watershed.					
	Start Date	Month 1	Completion Date	Month 24		
Subtask 3.6	GBRA will include information about this project in GBRA newsletters (e.g., *River Run*) and Clean Rivers Program publications regarding progress to implement the Geronimo Creek WPP. GBRA will solicit content matter for these publications from Project Partners as appropriate.					
	Start Date	Month 1	Completion Date	Month 24		

Tasks, Objectives and Schedules				
Task 3	Support and Facilitation of WPP Implementation			
Subtask 3.7	Extension will develop, publish, and distribute 4 semi-annual newsletters that are designed to keep landowners and entities informed of ongoing WPP implementation activities, including water quality data collection and progress toward achieving milestones in the WPP. The newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed. Extension will solicit content matter for the newsletters from project partners as appropriate.			
	Start Date	Month 1	Completion Date	Month 24
Subtask 3.8	Extension will facilitate communication with stakeholders in order to engage the public and affected entities in WPP implementation. Extension will utilize all appropriate communication mechanisms including direct mail, e-mail, the project website, and mass media (print, radio, television). Extension will develop and disseminate general project informational materials, including, but not limited to, flyers, brochures, letters, factsheets, news releases, and other appropriate promotional publications. Extension will develop and utilize a listserv (e.g., http://listserv.tamu.edu/) to facilitate direct discussion between stakeholders. Extension will explore the appropriate use of social media (i.e., Facebook) as a stakeholder communication mechanism for this watershed. Extension will solicit content matter for educational materials from project partners as appropriate.			
	Start Date	Month 1	Completion Date	Month 24
Subtask 3.9	Extension will make deliberate efforts to increase awareness of the WPP and secure implementation support thereof from county and municipal governments throughout the watershed.			
	Start Date	Month 1	Completion Date	Month 24
Subtask 3.10	Extension will maintain a spreadsheet of watershed stakeholders and affected parties for use in engaging the public in the watershed planning process. The spreadsheet will be added to based upon previous efforts of Extension in TSSWCB project 08-06. The spreadsheet will represent a diverse cross section of Geronimo Creek landowners, citizens, local businesses, 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 24
Subtask 3.11	Extension will attend and participate in other public meetings as appropriate in order 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 Rivers Program Basin Steering Committee and Coordinated Monitoring, local soil and water conservation districts (SWCDs), groundwater conservation districts and other appropriate meetings of critical watershed stakeholder groups.			
	Start Date	Month 1	Completion Date	Month 24
Deliverables	• Notices, agendas, meeting materials, attendance lists, and summaries from Partnership meetings • Documentation of resource opportunities identified, applied for, and resources obtained to support plan implementation • Draft Biennial Addendum to WPP • Stakeholder contact list, updated as needed • List of other meetings attended and dates with brief summary of topics discussed and action needed included in QPRs • Information included in Clean Rivers Program materials • 4 Semi-annual newsletters developed and distributed to stakeholders • Educational and promotional materials, as developed and disseminated, including press releases, and functioning listserv			

Tasks, Objectives and Schedules						
Task 4	Water Quality Data Collection and Analysis.					
Costs	Federal	$115,655	Non-Federal	$38,412	Total	154,067
Objective	To collect water quality data in the Geronimo Creek watershed so a continuous data record can be maintained during the interim when the Geronimo Creek WPP is developed and when implementation of the WPP begins					
Subtask 4.1	GBRA will conduct routine ambient monitoring at seven sites once per month, collecting field, conventional, flow and bacteria parameter groups. The QAPP developed in Task 2 will precisely identify the sites. The sampling period extends over 21 months. The number of samples planned for collection through this subtask is 147. Currently, routine ambient monitoring is conducted monthly at one station by GBRA (12576) through the Clean Rivers Program. Sampling through this subtask will complement existing routine ambient monitoring regimes such that routine water quality monitoring is conducted monthly at eight sites in the Geronimo Creek watershed. GBRA's Regional Laboratory will conduct sample analyses. Field parameters are pH, temperature, dissolved oxygen and conductance. Conventional parameters are total suspended solids, turbidity, sulfate, chloride, nitrate nitrogen, ammonia nitrogen, total kjeldahl nitrogen, chlorophyll-a, pheophytin, total hardness, and total phosphorus. Flow parameters are flow collected by gage, electric, mechanical or Doppler, including severity. Bacteria parameter is *E. coli* enumerated using USEPA Method 1603.					
	Start Date	Month 4	Completion Date	Month 24		
Subtask 4.2	GBRA will conduct routine ambient monitoring at six sites once per quarter year, collecting field, conventional, flow and bacteria parameter groups; specific parameters are defined in Subtask 4.1. The QAPP developed in Task 2 will precisely identify the sites. The sampling period extends over seven seasons. The number of samples planned for collection through this subtask is 42. Spatial and seasonal variation will be captured in these snapshots of watershed water quality. GBRA's Regional Laboratory will conduct sample analyses.					
	Start Date	Month 4	Completion Date	Month 24		
Subtask 4.3	GBRA will conduct biased flow monitoring at fourteen sites once per season under wet conditions, collecting field, conventional, flow and bacteria parameter groups; specific parameters are defined in Subtask 4.1. These sites shall be the same as the sites for routine ambient monitoring described in subtasks 4.1-4.2. If a storm event was captured under routine monitoring in subtasks 4.1-4.2, a separate biased flow sample will not be collected under this subtask. The QAPP developed in Task 2 will precisely identify the sites. The sampling period extends over seven seasons. The number of samples planned for collection through this subtask is 98. Spatial, seasonal and meteorological variation will be captured in these snapshots of watershed water quality. GBRA's Regional Laboratory will conduct sample analyses.					
	Start Date	Month 4	Completion Date	Month 24		
Subtask 4.4	GBRA will conduct routine groundwater monitoring at up to four sites (e.g., two spring and two wells) once per quarter year, collecting field, conventional, flow and bacteria parameter groups; specific parameters are defined in Subtask 4.1. The QAPP developed in Task 2 will precisely identify the sites. The sampling period extends over seven quarters. The number of samples planned for collection through this subtask is 28. GBRA's Regional Laboratory will conduct sample analyses.					
	Start Date	Month 4	Completion Date	Month 24		
Subtask 4.5	GBRA will transfer monitoring data from activities in subtasks 4.1-4.4 to TSSWCB for inclusion in the TCEQ SWQMIS at least quarterly. Data will be transferred in the correct format using the TCEQ file structure along with a completed Data Summary, as described in the most recent version of the *TCEQ Surface Water Quality Monitoring Data Management Reference Guide*. GBRA will post data from monitoring activities collected in subtasks 4.1-4.4 to the project website in a timely manner. GBRA will submit Station Location Requests to TCEQ, as needed, to obtain TCEQ station numbers for new monitoring sites. Data Correction Request Forms will be submitted to TSSWCB whenever errors are discovered in data already reported. All monitoring data files, data summary reports and data correction request forms will also be provided to Extension. GBRA will input monitoring regime, as detailed in the QAPP, into the TCEQ CMS.					

Tasks, Objectives and Schedules				
Task 4	Water Quality Data Collection and Analysis.			
	Start Date	Month 4	Completion Date	Month 24
Subtask 4.6	GBRA will develop a final Assessment Data Report summarizing water quality data collected through Task 4. The Report shall, at a minimum, provide an assessment of water quality with respect to effectiveness of BMPs implemented and a discussion of interim short-term progress in achieving the Geronimo Creek WPP water quality goals. GBRA will summarize the results from Task 4 in the GBRA's Clean Rivers Program Basin Highlights Report and Basin Summary Report. GBRA will provide updates on the results and activities of Task 4 to the Steering Committee.			
	Start Date	Month 4	Completion Date	Month 24
Deliverables	• Station Location Request Forms (as needed) in electronic format • Monitoring data files and Data Summary in electronic format • Data correction request forms (as needed) in electronic format • Monitoring data updates posted to the project webpage • Summary of findings from monitoring activities included in GBRA CRP BHR and BSR in both electronic and hardcopy formats • Final Assessment Data Report in both electronic and hard copy formats			

Project Goals (Expand from Summary Page)
• Generate data of known and acceptable quality for surface and ground water quality monitoring (routine ambient, targeted watershed, and spring flow) of main stem and tributary stations for field and conventional parameters, flow, and bacteria; and, groundwater monitoring of two shallow wells from the Leona Aquifer for conventional and bacteria parameters • Support the implementation of the Geronimo Creek WPP by collecting water quality data for use in evaluating the effectiveness of BMPs, and in assessing water quality improvement and progress in achieving restoration • Communicate water quality conditions to the public and to the Partnership on project results and activities in order to support adaptive management of the Geronimo Creek WPP and to expand public knowledge on Geronimo and Alligator Creeks water quality data • Facilitate the Geronimo Creek Partnership and foster coordinated assistance activities between the Cities, Counties, GBRA, TSSWCB, local SWCDs, and NRCS by providing a local presence in the Geronimo and Alligator Creeks Watershed. • Conduct Partnership meetings and Work Group meetings to provide updates on progress, seek stakeholder input and recommendations on needed activities, and encourage citizen participation. • Support and facilitate the Partnership in identifying management measures to improve water quality, developing proposals to acquire funding for implementation of management measures, managing and tracking implementation projects as well as facilitating education programs in order to encourage adoption of BMPs. • Work with state and federal agencies, as appropriate, to bring technical and financial resources to the Geronimo Creek watershed. • Track and document implementation efforts to assess progress toward achieving milestones established in the WPP. • Coordinate and conduct water resources and related environmental outreach/education efforts across the watershed, by developing publications, website content to promote and communicate watershed efforts, and by organizing training programs.

Measures of Success (Expand from Summary Page)
• Provide technical assistance to the Partnership through identification and acquisition of resources, seek and pursue funding opportunities, and develop grant proposals • Evaluate progress toward achieving milestones in the WPP and publish an addendum to the Geronimo Creek WPP that describes modifications/updates to goals and milestones, documents success in achieving goals and milestones and success in achieving water quality improvement and load reductions • Data of known and acceptable quality are generated for surface water quality monitoring (routine ambient, targeted watershed, and spring flow) of main stem and tributary stations on Geronimo Creek for field and conventional parameters, flow, and bacteria and for groundwater monitoring of shallow wells from the Leona Aquifer for conventional and bacteria parameters • Water quality data is used to evaluate progress in implementing the Geronimo Creek WPP and achieving water quality restoration • Water quality data is communicated to the public and the Partnership in a timely fashion • Increased watershed stewardship among Geronimo Creek watershed stakeholders • Increased knowledge of citizens, landowners and agricultural producers of management measures identified in WPP through outreach and educational efforts including training programs • Development and distribution of 4 semi-annual newsletters to watershed stakeholders via direct mail, e-mail, and the project website to maintain contact with Geronimo and Alligator Creek stakeholders and keep them engaged in the transition from the WPP development to WPP implementation • Continued operation and maintenance of the project website to announce relevant activities, project updates and other activities relevant to the WPP development and implementation process

***2005 Texas Nonpoint Source Management Program* Reference (Expand from Summary Page)**
Goals and/or Milestone(s)
Element One – Explicit short- and long-term goals, objectives and strategies that protect surface and groundwater.
Long-Term Goal – To… restore water quality from NPS pollution through assessment, implementation, and education. • Objective A – Focus NPS abatement efforts, implementation strategies, and available resources in watersheds identified as impacted by nonpoint source pollution. • Objective C – Support the implementation of… programs to reduce NPS pollution, such as the implementation of strategies defined in… WPPs. Objective F – Increase overall public awareness of NPS issues and prevention activities.
Long-Term Goal Two – Support the implementation of state, regional, and local programs to prevent reduce NPS pollution through assessment, implementation and education. , such as the implementation of strategies defined in state-approved TMDL Implementation Plans and Watershed Protection Plans.
Long-Term Goal Three – Support the implementation of state, regional, and local programs to reduce NPS pollution, such as the implementation of strategies defined in… WPPs.
Long-Term Goal Six – Increase overall public awareness of NPS issues and prevention activities.
Short-Term Goal One – Data Collection and Assessment – Objective B – Ensure that monitoring procedures meet quality assurance requirements and are in compliance with EPA-approved TCEQ and/or TSSWCB Quality Management Plans.
Short-Term Goal One – Data Collection and Assessment – Objective E – Conduct monitoring to determine effectiveness of… WPPs, and BMP implementation…
Short-Term Goal Three – Education – Objective F – Implement public outreach and education to maintain and restore water quality in water bodies by NPS pollution.

Part III – Financial Information

Budget Summary			
Federal	$ 292,421	% of total project	60%
Non-Federal	$ 191,435	% of total project (≥ 40%)	40%
Total	$ 483,856	Total	100%

Category	Federal	Non-Federal Match	Total
Personnel	$ 0	$ 40,595	$ 40,595
Fringe Benefits	$ 0	$ 15,386	$ 15,386
Travel	$ 500	$ 500	$ 1,000
Equipment	$ 0	$ 0	$ 0
Supplies	$ 2,700	$ 0	$ 2,700
Contractual	$ 176,766	$ 116,106	$ 292,872
Construction	$ 0	$ 0	$ 0
Other	$ 112,455	$ 8,610	$ 121,065
Total Direct Costs	$ 292,421	$ 181,197	$ 473,618
Indirect Costs (≤15%)	$ 0	$ 10,238	$ 10,238
Unrecovered Indirect	$ 0	$ 0	$ 0
Total Project Costs	$ 292,421	$ 191,435	$ 483,856

The TSSWCB CWA §319(h) NPS Grant Program has a 60/40% match requirement. The cooperating entity will be reimbursed 60% from federal funds and must contribute a minimum of 40% of the total costs to conduct the project. The 40% match must be from non-federal sources and should be described in the budget justification. Reimbursable indirect costs are limited to no more than 15% of total federal direct costs. The project budget generally covers a three year period.

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 0	N/A
Fringe Benefits	$ 0	N/A
Travel	$ 500	Mileage for sample collection at the federal rate of $0.51/mi.
Equipment	$ 0	N/A
Supplies	$ 2,700	Supplies for water quality monitoring
Contractual	$ 176,766	Texas AgriLife Extension Service
Construction	$ 0	N/A
Other	$ 112,455	Analyses of water quality monitoring samples described in Task 4.
Indirect	$ 0	N/A

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 40,595	• Director of Water Quality Services (0.06 FTE) • Water Quality Field Technicians (2 @ 0.3 FTE) • Website Administrator (0.01 FTE) • Administrative Assistant (0.01 FTE) • Education Coordinator (0.05 FTE)
Fringe Benefits	$ 15,386	Fringe calculated at 37.9% of non-federal personnel
Travel	$ 500	Mileage to project meetings at the federal rate of $0.51/mi.
Equipment	$ 0	N/A
Supplies	$ 0	N/A
Contractual	$ 116,106	Texas AgriLife Extension Service
Construction	$ 0	N/A
Other	$ 8,610	Clean Rivers Program monitoring at site 12576
Indirect	$ 10,238	Indirect calculated at 25.22% of non-federal Personnel

Contractual Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel	$ 88,892	• Extension Program Specialist (1 FTE) for 2 years • Program Director for 2 years at 0.1 FTE/year
Fringe Benefits	$ 21,818	Fringe benefits are calculated are calculated at a rate of 17.1% of salary to cover FICA, UCI, WCI, and retirement. An additional amount of $526/month (prorated by % FTE) is calculated for group medical insurance. These estimates are in accordance with the TAMUS Office of Budget and Accounting estimating procedures established for FY2010.
Travel	$ 8,000	Travel from College Station to the Geronimo Creek watershed on a monthly or more frequent basis for 2 years with periodic overnight stays at @ $.40/mile, $85 room night and $36/day per diem
Equipment	$ 0	N/A
Supplies	$ 7,250	General office supplies ($3,000); mailouts of project materials to stakeholder group ($4,250)
Contractual	$ 0	N/A
Construction	$ 0	N/A
Other	$ 27,750	Design and publication costs for an educational project brochure ($7,320) and for draft and final copies of the WPP ($17,250); computer ($1,500); cell phone service ($1,680)
Indirect	$ 23,056	15% of Total Direct Federal

Contractual Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel	$ 62,219	• Extension Specialist (0.2 FTE) • Extension Regional Program Director for the South (0.13 FTE) • County Extension Faculty (Guadalupe and Comal Counties) (2 x 0.14 FTE) per year
Fringe Benefits	$ 16,510	Fringe rate of 1.171 plus $526/month insurance
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	$ 20,469	26% of Total Direct Non-Federal
Unrecovered IDC	$ 16,908	11% of Total Direct Federal