Texas State Soil and Water Conservation Board
Section 319(h) Nonpoint Source Program
FY 2007 Project 07-14

NONPOINT SOURCE SUMMARY PAGE for the CWA, Section 319(h) Agricultural/Silvicultural Nonpoint Source Program						
Title of Project:	Agricultural NPS Remediation in the Cedar Creek Reservoir Watershed					
Project Goals/Objectives:	The project's goal is to reduce nutrient and sediment loading to Cedar Creek Reservoir by implementing BMPs on crop and pasture lands. The objectives are to encourage BMP implementation by providing landowners with technical and financial assistance through the Kaufmann-Van Zandt SWCD and educational programs through Texas Cooperative Extension. Effectiveness of BMPs will be assessed by TAES.					
Project Tasks:	1) Develop and Implement Water Quality Management Plans 2) Verify BMP Effectiveness 3) Provide Water Quality Education 4) Coordinate Project Activities and Reporting					
Measures of Success:	• 20 WQMPs implemented in the Cedar Creek Reservoir Watershed • Landowners provided with accurate, technically sound information for reducing the potential for nonpoint source pollution and maintaining and improving water quality in the Cedar Creek Watershed • Project participation at events and meetings will be documented by TCE. Success will be measured by the number of individual landowners the project reaches • Pre- and post- assessment surveys will gauge knowledge learned • Follow-up surveys will be used to gage implementation of BMPs					
Project Type:	Statewide (); Watershed Implementation/Education (X); Watershed Planning/Assessment (); Watershed Protection (X)					
Status of Water Body: 2004 Water Quality Inventory and 303(d) List	Segment ID: Cedar Creek Reservoir (0818)	Parameter: pH	Category: 5c			
Project Location:	Cedar Creek Watershed of North Central Texas including portions of Henderson, Kaufman, Rockwall and Van Zandt Counties (map attached)					
Key Project Activities:	Hire Staff (X); Monitoring (X); Regulatory Assistance ( ); Technical Assistance (X); Education (X); Implementation (X); Demonstration (X); Other ( )					
NPS Management Program Elements:	Long-Term Goal Objectives • Support the implementation of strategies defined in Watershed Protection Plans • Increase overall public awareness of NPS issues and prevention activities Short-Term Goal One – Data Collection and Assessment • Conduct monitoring to determine effectiveness of Watershed Protection Plans and BMPs Short-Term Goal Two – Implementation • Implement Watershed Protection Plans developed to restore and maintain water quality Short-Term Goal Three – Education • Enhance existing outreach programs • Administer programs to educate citizens about water quality • Expedite development of technology transfer activities • Conduct outreach through CRP, TCE, SWCDs, and others Milestones • Implement voluntary actions in the watershed and adjust BMP implementation based on follow-up verification monitoring of effectiveness					
Project Costs:	Federal:	$736,619	Non-Federal Match:	$483,147	Total:	$1,219,766
Project Management:	• Kaufman-Van Zandt Soil and Water Conservation District • Texas Agricultural Experiment Station					
Project Period:	September 1, 2007 – August 31, 2010					

Part I – Applicant Information

Co-Applicant							
SWCD Project Lead	Roy D. Deen						
Title	Chairman						
Organization	Kaufman-Van Zandt Soil and Water Conservation District No. 505						
E-mail Address	kaufmanvanzandtswcd@tx.nacdnet.org						
Street Address	8620 FM 741						
City	Forney	County	Kaufman	State	TX	Zip Code	75126
Telephone Number	972.552.5254			Fax Number			

Co-Applicant							
TAES Project Lead	Frank Gilstrap						
Title	Resident Director & Professor Texas A&M Dallas Agricultural Research and Extension Center						
Organization	Texas Agricultural Experiment Station (TAES)						
E-mail Address	f-gilstrap@dallas.tamu.edu						
Street Address	17360 Coit Road						
City	Dallas	County	Dallas	State	TX	Zip Code	75252
Telephone Number	972.231.5362			Fax Number	972.952.9216		

Project Partners	
Names	Roles & Responsibilities
Kaufman-Van Zandt SWCD	Responsible for the supervision of the technician. Responsible for developing and implementing WQMPs within the Cedar Creek Watershed. Responsible for the tracking of soils tests funded through the project. Responsible for tracking the implementation of WQMPs. Responsible for providing necessary project information for quarterly reports and Final Report.
TSSWCB	Project oversight. Responsible for technical review and certification of WQMPs. Work with and assist as needed, the SWCD in the implementation and development of WQMPs. Also assist the SWCD in inventorying current BMPs and land use practices and the implementation of WQMPs.
NRCS	Work with and assist as needed, local SWCD in the implementation and development of WQMPs
Texas Agricultural Experiment Station	Verify BMP effectiveness, oversee project quality assurance, and assist with education program
Texas Cooperative Extension	Provide water quality education in the watershed
Tarrant Regional Water District	Provide financial and other assistance to landowners implementing WQMPs in the Cedar Creek watershed
Texas Water Resources Institute	Coordinate project activities and reporting

Part II – Project Information

Project Type							
Surface Water	X	Groundwater					
Does the project implement recommendations made in a completed Watershed Protection Plan or approved TMDL Report or Implementation Plan?				Yes	X	No	
If yes, identify the document.	Cedar Creek Watershed Protection Plan						
If yes, identify the agency/group that developed and/or approved the document.	TAES and TRWD			Year Developed	2007		

Watershed Information				
Watershed Name(s)	Hydrologic Unit Code (8 Digit)	Segment ID	305 (b) Category	Size (Acres)
Cedar Creek Watershed	12030107	0818	5c	675,788

Project Narrative

Problem/Need Statement

Tarrant Regional Water District (TRWD) is one of the largest raw water suppliers in Texas, serving about 1.6 million people in ten counties in the Fort Worth area and its surroundings. With the growing urbanization, TRWD is expected to serve a projected population of 2.66 million in 2050. TRWD has contracts with 65 cities and is responsible for management of water resources in five major reservoirs in the Trinity River basin with a combined storage of 2,384,314 acre/feet. One of these reservoirs is Cedar Creek Reservoir which has a conservation capacity of 679,200 acre-feet.

TRWD has been concerned about the recent water quality issues caused by nonpoint source pollution sources in the watershed (see attached map). TRWD has conducted and paid for continuing monitoring at 10 tributary sites, 9 wastewater treatment facility discharge sites and 6 reservoir monitoring sites (see attached monitoring map) since 1989 in order to gage the water quality in the watershed. Nonpoint source pollution from agricultural runoff is reported to be a contributor to water quality impairment in the watershed. Excess nutrient loading to the reservoir has led to eutrophication, depletion of dissolved oxygen (DO), excess algal growth, and fish tissue contamination.

TRWD has made efforts to understand the mechanism of how pollutant loads reach the reservoir and the hydro-dynamics taking place within it. TRWD is working with the Texas Agricultural Experiment Station (TAES), Spatial Sciences Laboratory (SSL), and Texas Water Resources Institute (TWRI) to develop and use simulation models to identify potential contaminant sources, estimate the potential costs and benefits of BMPs to reduce contaminant loading, and develop plans to improve water quality. The culmination of this work, which is funded by the U.S. Environmental Protection Agency (EPA) and the Natural Resources Conservation Service (NRCS) through the North Central Texas Water Quality Project, is a Watershed Protection Plan (anticipated to be completed in September 2007). The purpose of the proposed project is to implement WPP recommendations concerning agricultural education and BMP implementation.

Project Narrative

General Project Description

This project will consist of the Kaufmann-Van Zandt SWCD, TSSWCB, USDA-NRCS, TAES, TCE, TWRI, and TRWD working together to implement agricultural BMPs and education programs in the Kaufmann-Van Zandt SWCD as recommended by the Cedar Creek Reservoir Watershed Protection Plan. The effectiveness of these programs will be evaluated by TAES. This project will work cooperatively with ongoing efforts in the watershed such as the North Central Texas Water Quality Project and the NRCS EQIP program.

Potential agricultural Best Management Practices to be implemented in the Cedar Creek Watershed and preliminary effectiveness of controlling Sediment, Nitrogen and Phosphorus from SWAT Modeling activities include:

Practice	% Sediment Reduction	% N Reduction	% P Reduction
Cropland BMPs			
Terrace (Practice #600)			
Contour Farming (Practice #330)	-16%	-7%	-17%
Crop Residue Management (Practice #329, 344, 345, 346) (Conventional till to No till)	-1%	+0.1%	+1.36%
Conversion of Cropland to Grass – Pasture Planting (Practice #512)	-28%	-18.5%	-35%
Grassed Waterway (Practice #412)			
Filter Strips (Practice #393)	-22%	-17%	-30%
Fertilizer/Nutrient Management (Practice #590) (25% reduction in Mineral P application in cropland)	0%	0%	-2%
Pasture and Rangeland BMPs			
Prescribed Grazing (Practice #528)	-8%	-15.6%	-5.6%
Fencing (Practice #382)			
Water Facility (Practice # 614)			
Fertilizer/Nutrient Management (Practice #590)			
Pasture Planting (Practice #512)	-8%	-15.6%	-5.6%
Range Planting (Practice #550)			
Grassed Waterways (Practice #412)			
Riparian Buffer Strips (Practice #390, 391)			
Channel BMPs			
On or Off Channel Water and Sediment Control Basin (Practice #638)	-48%	-14.3%	-16.5%
Channel Stabilization (Practice #584)			
Streambank and Shoreline Protection (Practice #580)			
Watershed BMPs			
Wetland Creation (Practice #658)			
Grade Stabilization Structures (Practice #410)			

In this project, technical assistance will be provided by the Kaufmann-Van Zandt SWCD and the TSSWCB Mount Pleasant Regional Office to landowners within the Cedar Creek Reservoir Watershed drainage area to develop and implement WQMPs within the watershed. A technician will be hired by the SWCD to provide 100% effort in developing and implementing WQMPs.

The local SWCD will determine which landowners receive technical and financial assistance for the development and implementation of WQMPs. Financial assistance will be prioritized by the local SWCD based on proximity to: 1) Cedar Creek Reservoir, 2) Kings Creek, and 3) Cedar Creek. High priority will also be given to the most cost effective and needed pollution abatement practices to address sediment and nutrient loadings into Cedar Creek Reservoir.

The SWCD will offer a sign-up for the implementation assistance. To obtain a WQMP, landowners and operators will submit a request for implementation assistance to the SWCD. Upon compiling a list of producers who are interested in assistance, the SWCD will review and rank these requests based on the above listed priorities. Water quality improvement and protection will be the basis for making these decisions. Land units will further be prioritized based on site evaluations to achieve the greatest water quality benefits in the watershed.

Project Narrative

General Project Description

Upon approval of the request by the SWCD, the technician will work with the landowners to develop the WQMP. WQMP development includes such activities as:

- Developing conservation plan maps showing boundaries, fields, land use, acres and facilities
- Acquiring soil maps with appropriate interpretations
- Developing an implementation schedule
- Completing worksheets used during the planning phases (nutrient management plans, erosion worksheets, and field notes)

Once the technician completes the WQMP, the landowner, NRCS, and SWCD must sign it. It will then be sent by the SWCD to the TSSWCB Regional Office in Mount Pleasant for technical review and certification. Upon certification, the technician will work with the landowner in taking the appropriate steps needed to implement the components of the WQMP. If the landowner does not implement the WQMP according to the conditions established in the plan, then the TSSWCB has the authority to decertify the plan. The technician will complete 100% status reviews on all WQMPs developed for the duration of the project.

The TCE Education Program will provide landowners with accurate, technically sound information on how to better manage their property and in doing so reduce the potential for nonpoint source pollution caused by current land management practices. TCE will communicate the value of a good conservation ethic, demonstrate BMPs landowners can utilize on their property, and encourage participation in SWCD BMP implementation programs. Additionally, TCE Agents and Specialist will conduct educational events to improve landowner knowledge and understanding of BMPs for nutrient management and erosion control.

TAES will construct and collect data from runoff plots in an effort to analyze the effectiveness of WPP recommended BMPs for agricultural and rural lands in the Cedar Creek Watershed. The results of these analyses will be used to determine the load reductions resulting from the BMPs implemented through this project.

Water Quality Impairment

Describe all known causes (pollutants of concern) of water quality impairments from any of the following sources: 2004 Water Quality Inventory and 303(d) List, 2004 Summary of Waterbodies with Water Quality Concerns (Secondary Concerns List) or Other Documented Sources (ex. Clean Rivers Program Basin Summary or Basin Highlights Reports).

General use is not supporting and categorized as 5c due to high pH in Caney Creek cove, Clear Creek cove, cove off lower portion of reservoir adjacent to Clearview Estates, and Twin Creeks cove of Cedar Creek Reservoir. General use is partially supporting and categorized as 5c due to high pH in the lower portion of reservoir east of Key Ranch Estates, the lowermost portion of reservoir adjacent to dam, middle portion of reservoir downstream of Twin Creeks cove, upper portion of reservoir adjacent to Lacy Fork cove, upper portion of reservoir east of Tolosa and the uppermost portion of reservoir downstream of Kings Creek. High pH is also a concern in Prairie Creek cove.

2004 concerns include aquatic life use concerns in Cedar Creek cove and the uppermost portion of the reservoir downstream of Kings Creek as a result of depressed dissolved oxygen.

Nutrient enrichment is a concern in Cedar Creek cove as a result of elevated ammonia, orthophosphorus, and total phosphorus levels. Nutrient enrichment is also a concern in the middle portion of the reservoir downstream of Twin Creeks cove as a result of elevated ammonia levels present.

Excessive algal growth is a concern in Cedar Creek cove, the lower portion of the reservoir east of Key Ranch Estates, the lowermost portion of the reservoir adjacent to the dam, the middle portion of the reservoir downstream of Twin Creeks cove, and the upper portion of the reservoir adjacent to Lacy Fork cove.

Project Goals
The project's goal is to reduce nutrient and sediment loading to Cedar Creek Reservoir by implementing BMPs on crop and pasture lands. The objectives are to encourage BMP implementation by providing landowners with technical and financial assistance through the Kaufmann-Van Zandt SWCD and educational programs through TCE. Effectiveness of BMPs will be assessed by TAES.

Tasks, Objectives and Schedules						
Task 1:	Develop and Implement Water Quality Management Plans					
Costs:	Federal:	$393,062	State:	$216,667	Total:	$609,729
Objective:	To encourage landowners to implement BMPs to reduce nutrient and sediment runoff thru a traditional voluntary based incentive program & assistance to producers in developing and implementing WQMPs.					
Subtask 1.1:	The Kaufman-Van Zandt SWCD will hire a technician to provide technical assistance to landowners on the development of WQMPs. The TSSWCB Mount Pleasant Regional Office will train the technician.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 1.2:	The SWCD technician will attend monthly SWCD board meetings to discuss technical assistance activities, project schedule, lines of responsibility, communication needs, and other required tasks with project participants.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 1.3:	The SWCD technician will coordinate with other agencies and programs providing landowners incentives for adopting Best Management Practices.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 1.4:	The SWCD technician will attend meetings with the TSSWCB project manager and other meetings, as needed, to review project status, deliverables, etc.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 1.5:	The SWCD technician will prepare materials for inclusion in quarterly reports and the final report for submittal by TWRI to the TSSWCB.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 1.6:	The Kaufman-Van Zandt SWCD will be allocated $250,000 in 319(h) funding to provide cost-share to landowners in the Cedar Creek Watershed to implement BMPs that reduce nutrient and sediment runoff to local waterbodies. In addition, TRWD will provide $50,000 in cost-share funds. The maximum cost-share rate shall not exceed 70% of the cost of implementation of the BMP with 60% coming from 319(h), 10% from TRWD funds, and 30% from the landowner. Landowners shall be eligible to receive a maximum cost-share amount of $15,000 from the TSSWCB 319(h) funds. Cost share will be based on actual cost not to exceed average cost of the practice.					
	Start Date:	Month 1	Completion Date:	Month 32		
Subtask 1.7:	The SWCD technician will send out notifications announcing the availability of assistance for implementing WQMPs/BMPs and will assist the SWCD in accepting and prioritizing the WQMP applications. The TSSWCB project manager must approve all announcements, letters and publications developed before distribution.					
	Start Date:	Month 1	Completion Date:	Month 32		

Subtask 1.8:	The SWCD technician, with assistance from NRCS and the TSSWCB Mount Pleasant Regional Office, will provide landowners information on appropriate BMPs and will work with landowners in developing and implementing a minimum of 20 WQMPs.			
	Start Date:	Month 1	Completion Date:	Month 32
Subtask 1.9:	The TSSWCB Mount Pleasant Regional Office will provide technical review and certification of WQMPs. During this process, TSSWCB will certify all WQMPs and ensure that they are consistent with state water quality standards.			
	Start Date:	Month 1	Completion Date:	Month 32
Subtask 1.10:	The SWCD technician will conduct status reviews on all WQMPs to ensure BMP implementation schedules are being followed.			
	Start Date:	Month 1	Completion Date:	Month 36
Subtask 1.11:	The SWCD technician will assist landowners in the SWCD with the acquisition of current soil tests though utilization of project funding. Funding for 100 soil tests annually will be provided.			
	Start Date:	Month 1	Completion Date:	Month 36
Subtask 1.12:	The SWCD will have an audit completed at least once during the project period.			
	Start Date:	Month 1	Completion Date:	Month 36
Subtask 1.13:	The SWCD technician, with assistance from the NRCS and TSSWCB Mount Pleasant Regional Office, will compile information on the location and types of BMPs for each WQMP implemented within the Cedar Creek Reservoir, Kings Creek, and Cedar Creek Watersheds.			
	Start Date:	Month 1	Completion Date:	Month 36
Deliverables	• Information for inclusion in quarterly reports and final report • 20 WQMPs developed and implemented within the Kaufman-Van Zandt SWCD • Records of BMPs implemented to date by each producer for inclusion in quarterly reports. • Annual status reviews will be submitted to the TSSWCB • Records of soils tests and summary of test results • SWCD Audit • A spreadsheet and map showing the location and types of BMPs for each WQMP implemented			

Tasks, Objectives and Schedules						
Task 2:	Verify BMP Effectiveness					
Costs:	Federal:	$249,961	State:	$209,365	Total:	$459,326
Objective:	To quantify the effectiveness of WPP recommended BMPs for agricultural and rural lands in the Cedar Creek Watershed.					
Subtask 2.1:	TAES will develop a Quality Assurance Project Plan (QAPP) that will detail project goals and objectives, the data needs to fulfill those objectives, lists field and laboratory methods, procedures and schedules to be followed, and specify a data management structure and quality assurance protocols. The QAPP will be developed using guidelines in EPA QA/R-5, "EPA Requirements for Quality Assurance Project Plans".					
	Start Date:	Month 1	Completion Date:	Month 6		
Subtask 2.2:	TAES will provide annual revisions to the QAPP and amendments, as needed, to the TSSWCB and EPA.					
	Start Date:	Month 6	Completion Date:	Month 36		

Subtask 2.3:	TAES will construct 10 replication plots 2,500 square feet in size and measuring 50X50 ft to evaluate agricultural BMPs for cropland and pasture lands. TAES will install run off collection instruments and soil moisture monitoring equipment in the runoff plots and gather benchmark runoff data from each plot before initiating BMPs.			
	Start Date:	Month 1	Completion Date:	Month 7
Subtask 2.4:	TAES will collect runoff data including flow intensities and volumes, sediment loads, total and soluble N and P concentrations, pH, electrolytic conductivity, total and dissolved organic carbon, and dissolved oxygen content. Treatments will consist of the following: 1) Control, 2) Residue management, 3) Buffer Strips, 4) Fertilizer and Nutrient Management, and 5) Cropland converted to forage production.			
	Start Date:	Month 8	Completion Date:	Month 34
Subtask 2.5:	TAES will use runoff data and data from other sources to calculate the nutrient and sediment load reductions resulting from the project for inclusion in the final report.			
	Start Date:	Month 8	Completion Date:	Month 34
Deliverables	• QAPP, amendments, and annual revisions • Technical Report on BMP effectiveness coefficients for black land soils of North Central Texas with regard to varying crops, pasture conditions, prevailing weather conditions, etc. • Estimated nutrient and sediment reductions resulting from project implementation			

Tasks, Objectives and Schedules						
Task 3:	Provide Water Quality Education					
Costs:	Federal:	$69,838	State:	$50,814	Total:	$120,652
Objective:	To promote the implementation of cost effective BMPs, information will be provided to landowners in the Kaufman-Van Zandt SWCD about how their operation may affect the water quality and quantity in the Cedar Creek Watershed. This information will be disseminated through TCE in cooperation with the Kaufman-Van Zandt SWCD, TSSWCB, NRCS, TAES, TRWD, and TWRI.					
Subtask 3.1:	TCE and TAES will assimilate and evaluate the adequacy of existing educational resources and resource needs to provide educational support for the project.					
	Start Date:	Month 1	Completion Date:	Month 12		
Subtask 3.2:	TCE and TAES will provide biannual educational/training events on single- or multi-county level to: 1) improve landowner knowledge and understanding of BMPs for nutrient management and erosion control, 2) provide information on project activities and results and 3) provide additional training on implementing and sustaining BMPs. NRCS, TSSWCB, and Kaufman-Van Zandt SWCD personnel will be requested to be speakers to provide information on cost share and technical assistance programs available to assist producers.					
	Start Date:	Month 6	Completion Date:	Month 36		
Subtask 3.3:	TCE and TAES will conduct a preliminary survey of a select group of initial event participants to evaluate knowledge about surface water conditions in the watershed and assess current knowledge and use of erosion control and nutrient management practices. Follow-up surveys will be conducted in subsequent years to evaluate changes, if any, in producer awareness and BMP implementation.					
	Start Date:	Month 1	Completion Date:	Month 36		

Deliverables	• Compilation of existing and developed resources on nutrient management and erosion control • Six educational events. Schedules, agendas and participant lists will be provided in QPRs. • Summary of annual producer surveys.

Tasks, Objectives and Schedules						
Task 4:	Coordinate Project Activities and Reporting					
Costs:	Federal:	$23,758	State:	$6,301	Total:	$30,059
Objective:	To facilitate effective coordination of work performed under this project. TWRI will be responsible for developing timely and accurate reports. Progress reports shall document all activities performed within a quarter and shall be submitted not later than thirty (30) days after the close of the quarter.					
Subtask 4.1:	TWRI, with input from the Project Partners, will prepare electronic quarterly reports for submission to the TSSWCB. All progress reports will be provided to all Project Participants.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 4.2:	TWRI will coordinate quarterly TTVN meetings or teleconferences, as appropriate, with project participants to discuss project activities, project schedule, lines of responsibility, communication needs, and other requirements.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 4.3:	TWRI will attend meetings with the TSSWCB project manager, SWCD, and other meetings, as needed, to review project status, deliverables, etc.					
	Start Date:	Month 1	Completion Date:	Month 36		
Subtask 4.4:	TWRI will assist Project Partners with the completion and submittal of a final report to the TSSWCB at the culmination of the project. This report will be completed and provided to the TSSWCB in electronic format (i.e. compact disc; etc.).					
	Start Date:	Month 30	Completion Date:	Month 36		
Deliverables	• Quarterly reports documenting project status • Quarterly TTVNs or teleconferences • Final report					

Measures of Success
• 20 WQMPs will be implemented in the Cedar Creek Reservoir Watershed • Provide landowners with accurate, technically sound information that they can utilize to reduce the potential for nonpoint source pollution and maintain and improve water quality in the Cedar Creek Watershed • Project participation at events and meetings will be documented by TCE. Success will be measured by the number of individual landowners the project reaches • Pre- and post- assessment surveys will gauge knowledge learned • Follow-up surveys will be used to gage implementation of BMPs

2005 Texas Nonpoint Source Management Program Document Reference
Goals &/or Milestone(s)
Long-Term Goal Objectives • Support the implementation of strategies defined in Watershed Protection Plans • Increase overall public awareness of NPS issues and prevention activities
Short-Term Goal One – Data Collection and Assessment • Conduct monitoring to determine effectiveness of Watershed Protection Plans and BMPs
Short-Term Goal Two – Implementation • Implement Watershed Protection Plans developed to restore and maintain water quality
Short-Term Goal Three – Education • Enhance existing outreach programs • Administer programs to educate citizens about water quality • Expedite development of technology transfer activities • Conduct outreach through CRP, TCE, SWCDs, and others
Milestones • Implement voluntary actions in the watershed and adjust BMP implementation based on follow-up verification monitoring of effectiveness

Part III – Financial Information

Budget Summary			
Federal 319(h)	$736,619	% of total project	60%
Non-Federal Match	$483,147	% of total project (at least 40%)	40%
Total $ Cost	$1,219,766	Total project %	100%

Category	Federal	Non-Federal Match	Total
Personnel	92,727		92,727
Fringe Benefits	26,520		26,520
Subtotal Personnel & Fringe	119,247		119,247
Travel	12,015		12,015
Equipment			
Supplies	4,800		4,800
Contractual	347,557	266,480	614,037
Construction	250,000	216,667	466,667
Other	3,000		3,000
Subtotal	617,372	483,147	1,100,519
Total Direct Costs	736,619	483,147	1,219,766
Indirect Costs (15%)			
Total Project Costs	736,619	483,147	1,219,766

Budget Justification		
Category	Total Amount	Justification
Personnel & Fringe Benefits	$119,247	Federal: • SWCD Technician @ 100% effort with 28.6% benefits
Travel	$12,015	Federal: • SWCD Technician - $4,005 annually for travel to develop & implement WQMPs
Equipment	$0	
Supplies	$4,800	Federal: • SWCD Computer & Printer ($3,000) • SWCD Office Supplies ($600/yr)
Contractual	$614,037	Federal: • SWCD Audit ($4,000) • TAES ($343,557 - see attached budget) Non-Federal Match: • TAES ($266,479 - see attached budget)
Construction	$466,667	Federal: • SWCD Financial Assistance for 60% of cost of BMPs ($250,000) Non-Federal Match: • TRWD Financial Assistance for 10% of cost of BMPs ($50,000) • Landowner match of 30% of cost of BMPs ($166,667)
Other	$3,000	Federal: • Soil Testing for landowners ($1,000 per year)
Indirect	$0	


Cedar Creek Watershed
Water Resources
ROCKWALL
VAN ZANDT
KAUFMAN
HENDERSON
BIG BRUSHY CR
BATCHELOR CR
KINGS CR
JONES CR
TERRELL LK
ROCKY CEDAR CR
MUDDY CEDAR CR
ALLEN CR
CEDAR CR
LACY FK
NTWIN CR
STWIN CR
CEDAR CR RES
CLEAR CR
LANEY CR
Terrell
Kaufman
Kemp
Mabank
N
0 1.5 3 6 Miles

Cedar Creek Monitoring Stations