



**Texas State Soil and Water Conservation Board  
 Clean Water Act §319(h) Nonpoint Source Grant Program  
 FY 2015 Project 15-05**

<b>SUMMARY PAGE</b>	
Title of Project	Extended Delivery of the Texas Watershed Steward Program
Project Goals	<p>Facilitate statewide implementation of the Texas Watershed Steward (TWS) program through watershed-based group trainings and computer-based distance training components.</p> <ul style="list-style-type: none"> <li>• Increase stakeholder involvement in Watershed Protection Plan (WPP) and/or Total Maximum Daily Load (TMDL) development processes by educating and organizing local citizens.</li> <li>• Promote healthy watersheds by increasing citizen awareness, understanding, and knowledge about the nature and function of watersheds, potential impairments, and watershed protection strategies to minimize NPS pollution.</li> <li>• Enhance interactive learning opportunities for watershed education across the state and establish a larger, more well-informed citizen base.</li> <li>• Empower individuals to take leadership roles in community and watershed-level water resource issues.</li> </ul>
Project Tasks	(1) Project Administration; (2) Coordinate and deliver watershed-based TWS trainings in selected watersheds throughout Texas; (3) Manage on-line training tools for the TWS program; (4) Evaluate the effectiveness of the TWS watershed-based trainings and computer-based training tools.
Measures of Success	<ul style="list-style-type: none"> <li>• Deliver a minimum of 30 watershed-based TWS trainings in selected watersheds.</li> <li>• Number of citizens participating in watershed-based TWS trainings.</li> <li>• Number of citizens utilizing the computer-based training components of the TWS program.</li> <li>• Increased knowledge and understanding of watershed management by individuals participating in the program, as measured by pre-/post-tests and 6-month follow-up evaluations.</li> </ul>
Project Type	Implementation ( ); Education (X); Planning ( ); Assessment ( ); Groundwater ( )

Status of Waterbody on 2012 Texas Integrated Report	<u>Segment ID:</u>	<u>Parameter of Impairment or Concern</u>	<u>Category</u>
	1103	Bacteria	5a
		Depressed DO	5a
	1103A	Bacteria	5a
	1103B	Bacteria	5a
	1103C	Bacteria	5a
		Depressed DO	5c
	1103D	Bacteria	5c
	1103E	Bacteria	5b
	1104	Bacteria	5a
		Depressed DO	5c
	1804A	Bacteria	5c
	1428C	Bacteria	4a
	1004E	Bacteria	5a
	1008	Bacteria	5a
		Depressed DO	5b
	1008H	Bacteria	5a
	1009	Bacteria	5a
	1009C	Bacteria	5a
	1009D	Bacteria	5a
	1009E	Bacteria	5a
	1010	Bacteria	5a
	1011	Bacteria	5a
	1810	Bacteria	4b
	1217B	Depressed DO	5c
	1217D	Depressed DO	5b
	1221	Bacteria	5b
	1221A	Depressed DO	5c
		Bacteria	5b
	1221B	Bacteria	5b
	1221D	Bacteria	5b
	1221F	Bacteria	5b
	1901	Bacteria	4a
	1301	Bacteria	5c
	1302	Bacteria	5b
	1302A	Bacteria	5b
	1302B	Bacteria	5b
		Depressed DO	5c
	1245	Depressed DO	5a
	1245C	Bacteria	5b
	1245D	Bacteria	5b
	1245F	Bacteria	5b
	1245I	Bacteria	5b

	612 0207A 1804A 1217  1221 1810 1908  1911 1202K	Bacteria Bacteria Bacteria Bacteria Depressed DO Bacteria Bacteria Bacteria Depressed DO Chloride Bacteria Bacteria	5a 5c 5c 5b  5a 5c 5c 4a, 5c  5c			
Project Location (Statewide or Watershed and County)	Attoyac Bayou (Rusk, Nacogdoches, San Augustine, and Shelby Counties); Buck Creek (Donley, Collingsworth, and Childress Counties); Upper Cibolo Creek (Kendall County); Upper San Antonio River (Bexar County); Mill Creek (Washington and Austin Counties); Bastrop Bayou Watershed in Brazoria County; Dickinson Bayou in Brazoria and Galveston Counties; Geronimo Creek Watershed in Guadalupe and Comal Counties; Gilleland Creek in Travis County; Lake Granbury Watershed in Hood, Parker, Palo Pinto, Ranger, Erath, and Jack Counties; Lake Houston Area Watersheds in Grimes, Harris, Liberty, Montgomery, San Jacinto, Walker, and Waller Counties; Lampasas River Watershed in Bell, Burnet, Coryell, Hamilton, Lampasas, Mills, and Williamson Counties; Leon River Watershed below Proctor Lake and above Belton Lake in Comanche, Hamilton, Erath, Coryell, Mills and Bell Counties; Lower San Antonio River Watershed in DeWitt, Goliad, Guadalupe, Karnes, Refugio, Victoria, and Wilson Counties; Plum Creek Watershed in Caldwell, Hays, and Travis Counties; San Bernard River Watershed in Austin, Colorado, Wharton, Fort Bend, and Brazoria Counties; Upper Oyster Creek in Fort Bend County and any new watersheds identified for TMDL or WPP development.					
Key Project Activities	Hire Staff (X); Surface Water Quality Monitoring ( ); Technical Assistance ( ); Education (X); Implementation ( ); BMP Effectiveness Monitoring ( ); Demonstration ( ); Planning ( ); Modeling ( ); Bacterial Source Tracking ( ); Other ( )					
2012 Texas NPS Management Program Reference	<ul style="list-style-type: none"> <li>• Component One – LTGs 1, 2, 6, 7, 8</li> <li>• Component One – STGs 3A, 3B, 3F, 3G</li> <li>• Components Two &amp; Three</li> </ul>					
Project Costs	Federal	\$ 409,191	Non-Federal	\$ 85,320	Total	\$ 494,511
Project Management	<ul style="list-style-type: none"> <li>• Texas A&amp;M AgriLife Extension Service</li> </ul>					
Project Period	October 1, 2015 – September 30, 2018					

**Part I – Applicant Information**

Applicant							
Project Lead		Jake Mowrer					
Title		Assistant Professor & Specialist – Soil Nutrient and Water Resource Management					
Organization		Texas A&M AgriLife Extension Service					
E-mail Address		<a href="mailto:jake.mowrer@tamu.edu">jake.mowrer@tamu.edu</a>					
Street Address		Extension Soil and Crop Sciences 2474 TAMU					
City	College Station	County	Brazos	State	TX	Zip Code	77843
Telephone Number		979-845-5366			Fax Number		979-845-0604

Project Co-Lead		Galen R. Roberts					
Title		Extension Program Specialist					
Organization		Texas A&M AgriLife Extension Service					
E-mail Address		<a href="mailto:groberts@tamu.edu">groberts@tamu.edu</a>					
Street Address		Extension Soil and Crop Sciences 2474 TAMU					
City	College Station	County	Brazos	State	Texas	Zip Code	77843
Telephone Number		979-845-2425			Fax Number		979-845-0604

Project Co-Lead		Michael J. Kuitu					
Title		Extension Program Specialist					
Organization		Texas A&M AgriLife Extension Service					
E-mail Address		<a href="mailto:michael.kuitu@tamu.edu">michael.kuitu@tamu.edu</a>					
Street Address		Extension Soil and Crop Sciences 2474 TAMU					
City	College Station	County	Brazos	State	Texas	Zip Code	77843
Telephone Number		979-862-4457			Fax Number		979-845-0604

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 Extension Service – Department of Soil and Crop Sciences (Extension)	Provide management of all project activities and ensure coordination of activities with related projects and TCEQ.

**Part II – Project Information**

**Project Type**

Surface Water	X	Groundwater	
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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 <i>Texas Coastal NPS Pollution Control Program</i> , or (f) the <i>Texas Groundwater Protection Strategy</i> ?	Yes	X	No	
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If yes, identify the document.	Attoyac Bayou Watershed Protection Plan; Buck Creek Watershed Protection Plan; Eight Total Maximum Daily Loads for Indicator Bacteria in Dickinson Bayou and Three Tidal Tributaries Geronimo Creek and Alligator Creeks Watershed Protection Plan; Fifteen TMDLs for Indicator Bacteria in Watersheds of the Lake Houston Area; Lake Granbury Watershed Protection Plan; Lampasas River Watershed Protection Plan; Implementation Plan for One Total Maximum Daily Load for Bacteria in Gilleland Creek; Leon River Watershed Protection Plan; Mill Creek Watershed Protection Plan; Plum Creek Watershed Protection Plan; Upper Cibolo Creek Watershed Protection Plan; Upper San Antonio River Watershed Protection Plan; San Bernard River Watershed Protection Plan; One TMDL for Bacteria in Upper Oyster Creek
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If yes, identify the agency/group that developed and/or approved the document.		Year Developed	
	<p>Attoyac Bayou Watershed Partnership facilitated by Texas Water Resources Institute (TWRI) and TSSWCB; Bastrop Bayou Stakeholder Group facilitated by Houston-Galveston Area Council, Galveston Bay Estuary Program and TCEQ; TCEQ, University of Houston, and CDM; Buck Creek Watershed Partnership facilitated by TWRI and TSSWCB; Geronimo Creek Watershed Partnership facilitated by Texas A&amp;M AgriLife Extension Service and TSSWCB; Lampasas River Watershed Partnership facilitated by Texas A&amp;M AgriLife Research and TSSWCB; Plum Creek Watershed Partnership facilitated by Texas A&amp;M AgriLife Extension Service and TSSWCB; Landowners and entities in the Leon River watershed, facilitated by Brazos River Authority and TSSWCB; Upper Cibolo Creek Watershed Partnership facilitated by the City of Boerne, Texas landowners and entities in the Upper Cibolo Creek watershed and the Texas Commission on Environmental Quality (TCEQ); Upper San Antonio River Watershed Partnership facilitated by Texas A&amp;M AgriLife Research, San Antonio River Authority, and the TCEQ; Mill Creek Watershed Partnership facilitated by Texas A&amp;M AgriLife Extension Service and the TSSWCB; TCEQ and Texas Institute of Applied Environmental Research</p>		<p>2015; 2011;          2014; 2012;          2011; 2013;          2008; 2012;          2013; 2006;          2015; 2011;          2007</p>

Watershed Information				
Watershed Name(s)	Hydrologic Unit Code (12Digit)	Segment ID	Category on 2012 IR	Size (Acres)
Attoyac Bayou	12020005	612	5a	426,880
Bastrop Bayou Tidal	120402050400	1105	2	188,965
Buck Creek	11120105	0207A	5c	184,960
Dickinson Bayou	120402040200	1103	5a	63,287
Geronimo Creek (including its tributary, Alligator Creek)	121002020110, 121002020111	1804A	5c	44,152
Gilleland Creek	120903010106	1428C	4a	52,866
Lake Granbury	120602010601 – 0608, 120602010701 – 0706, 120602010801 – 120602010809, 120602010901 – 120602010907, 120602011001 – 120602011004, 120602011101 – 120602011110, 120602011201 – 120602011208	1205	2	1,335,138
Stewarts Creek	120401010401	1004E	5a	21,051
Spring Creek	120401020201, 120401020205, 120401020209, 120401020212, 120401020213	1008	5a, 5b	100,148
Willow Creek	120401020210	1008H	5a	35,310
Cypress Creek	120401020103, 120401020104, 120401020106, 120401020107	1009	5a	24,299
Faulkey Gully	120401020106	1009C	5a	35,082
Spring Gully	120401020106	1009D	5a	35,082
Little Cypress Creek	120401020105	1009E	5a	34,687
Caney Creek	120401030101, 120401030102, 120401030104, 120401030105, 120401030110	1010	5a	114,773
Peach Creek	120401030106 – 120401030109	1011	5a	308,922

Lampasas River (Lampasas River above Stillhouse Hollow Lake, Rocky Creek, Sulphur Creek, Simms Creek)	120702030101 – 120702030509	1217 1217A 1217B 1217C	5c 2 2 2	839,800
Leon River below Proctor Lake and above Belton Lake	120702010501 – 120702010509, 120702010601 – 120702010605, 120702010701 – 120702010705, 120702010801 – 120702010806, 120702010901 – 120702010908, 120702011002	1221	5a	871,488
Lower San Antonio River	121003030202, 121003030205, 121003030206, 121003030403, 121003030404, 121003030501, 121003030503, 121003030505, 121003030604 – 121003030608, 121003040405	1901	4a	776,863
Mill Creek	1207010402	1202K	5c	256,000
Plum Creek	110901050702, 110901050703, 111002030102, 111301050208, 111302090204, 120100040204, 120301010104, 120500030306, 120601020401, 120702010804, 120702010805, 120800020403, 121002030401 – 121002030403	1810	4b	288,240



San Bernard River	120904010101, 120904010102, 120904010104, 120904010109, 120904010205, 120904010207, 120904010302, 120904010304 – 120904010306, 120904010308	1301 1302 1302A 1302B	5c 5a 5c 5c	672,000
Upper Cibolo Creek	1210030402	1908	5c	49,210
Upper Oyster Creek	120402050100, 120402050200, 120701040403	1245	5a	65,649
Upper San Antonio River	1210030306	1911	4a, 5c	80,000

**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: *2012 Texas Integrated Report*, Clean Rivers Program Basin Summary/Highlights Reports, or other documented sources.

Elevated levels of bacteria (E. Coli) are the primary cause of water quality impairment in Texas. Of the 568 impairments included in the 2012 Texas Integrate Report, almost half are impaired due to bacterial contamination.

Bacteria is identified as the cause of impairment or a pollutant of concern in each of the aforementioned project location watersheds (Attoyac, Buck, Geronimo etc.). While point sources are a significant cause of bacterial pollution in some of these watersheds, nonpoint sources are by far the largest contributor. These nonpoint sources are both numerous and widespread, and include both urban and agricultural settings. Other parameters and pollutants of concern in these watersheds include nutrients, dissolved oxygen, and organics in fish tissue.

## Project Narrative

### Problem/Need Statement

All watersheds in Texas are threatened by nonpoint source (NPS) pollution which is detrimental to the valuable water resources of the state. To help combat this threat, federal and state water resource management agencies have adopted the “watershed approach” for managing water quality. One vital component of this approach involves engaging local stakeholders to become actively involved in planning and implementing water resource management and protection programs in their watershed. To support this need for stakeholder involvement, the Texas Watershed Steward (TWS) program was initiated to increase citizen understanding of watershed processes and to foster increased local participation in watershed management and watershed protection planning activities.

Initial pilot testing of the TWS program took place in conjunction with TSSWCB project 05-05 entitled, *A Community-Based Water Quality Curriculum Which Enhances Stakeholder Involvement in Watershed Protection Initiatives: A Pilot Project* in the Plum Creek watershed. This piloting period provided an opportunity to refine the curriculum tools and components in preparation for statewide implementation of the program. Through TSSWCB projects 07-09, *Statewide Implementation of the Texas Watershed Steward Program*, and 11-05, *Continued Statewide Delivery of the Texas Watershed Steward Program*, additional workshops were held across the state for a total of 53 workshops conducted through the end of FY2013 reaching over 2,503 people. Feedback from TWS workshops has been extremely positive and additional organizations and community groups from across the state have requested training events to enhance public understanding of local watershed issues and to support community water management and protection activities such as WPPs and TMDLs.

In the publication titled, *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*, the U.S. Environmental Protection Agency (EPA) identifies nine important elements of effective WPPs. One of the most critical elements focuses on information and education and recognizes the importance of enhancing public understanding and encouraging early and continued participation in the watershed planning process. The TWS program will continue to function to provide this vital information/education component and, in addition, will strive to facilitate greater, more effective, and sustained participation of stakeholders in watershed planning, implementation, and management efforts. The TWS program is a fundamental component of the State’s implementation of the *Texas NPS Management Program*. While face-to-face training events are highly effective, and preferred in impaired watersheds, participation can be reduced due to practical limitations related to time and/or travel to the event location for individuals with jobs, family commitments, or other constraints. Computer-based instruction, on the other hand, allows users to proceed through interactive program content at an individualized pace, adding flexibility and personalization to the learning experience. In February 2011, an online TWS program that incorporates all aspects of the TWS face-to-face training was officially launched as part of project 07-09.

The TWS program is a unique and valuable water education resource for the citizens of Texas. This project will continue statewide implementation of the TWS program to support and enhance current and future watershed management and protection efforts by all agencies and organizations in Texas.

## Project Narrative

### General Project Description (Include Project Location Map)

This project will continue statewide implementation of the TWS program by conducting watershed-based trainings in selected watersheds, and enhancing access to the program through the computer-based distance training tools.

*Watershed-Based Trainings.* The watershed-based trainings will be delivered as 1-day, 7-hour training events and will focus on enhancing understanding of watershed systems, watershed impairments, methods for improving watershed function, and community-driven watershed protection and management. Curriculum content will be tailored as much as possible to each specific watershed so participants better understand and relate to their particular watershed processes, causes of impairment(s), and the tools that can be employed to prevent and/or resolve them. At the conclusion of the training, participants will receive a certificate of completion recognizing them as Texas Watershed Stewards.

As a part of the training, participants will be educated on the importance of watershed protection and the need for active participation of local stakeholders in WPP and/or TMDL development processes. A major goal of the program will be to foster the formation of local groups that take an active role in leading and expanding watershed education efforts and promoting watershed protection activities in their community. Groups will be encouraged to identify key issues and activities to undertake, and will be made aware of various programs available through Extension (e.g., soil testing campaigns, water testing campaigns, Master Gardener, Master Naturalist, Texas Well Owner Network, Lone Star Healthy Streams) and other agencies and organizations (e.g., River Authorities, Texas Stream Team).

Extension will work in concert with state and local organizations to select and schedule locations for the watershed-based TWS training events. Priority will be given to watersheds currently engaged in WPP or TMDL processes and those planning future watershed efforts. Additional watersheds may be selected based on impairment status, environmental sensitivity, and/or other priority issues identified by a partner agency or organization. Preliminary planning already has been conducted with several river authorities and partner entities to identify target watersheds.

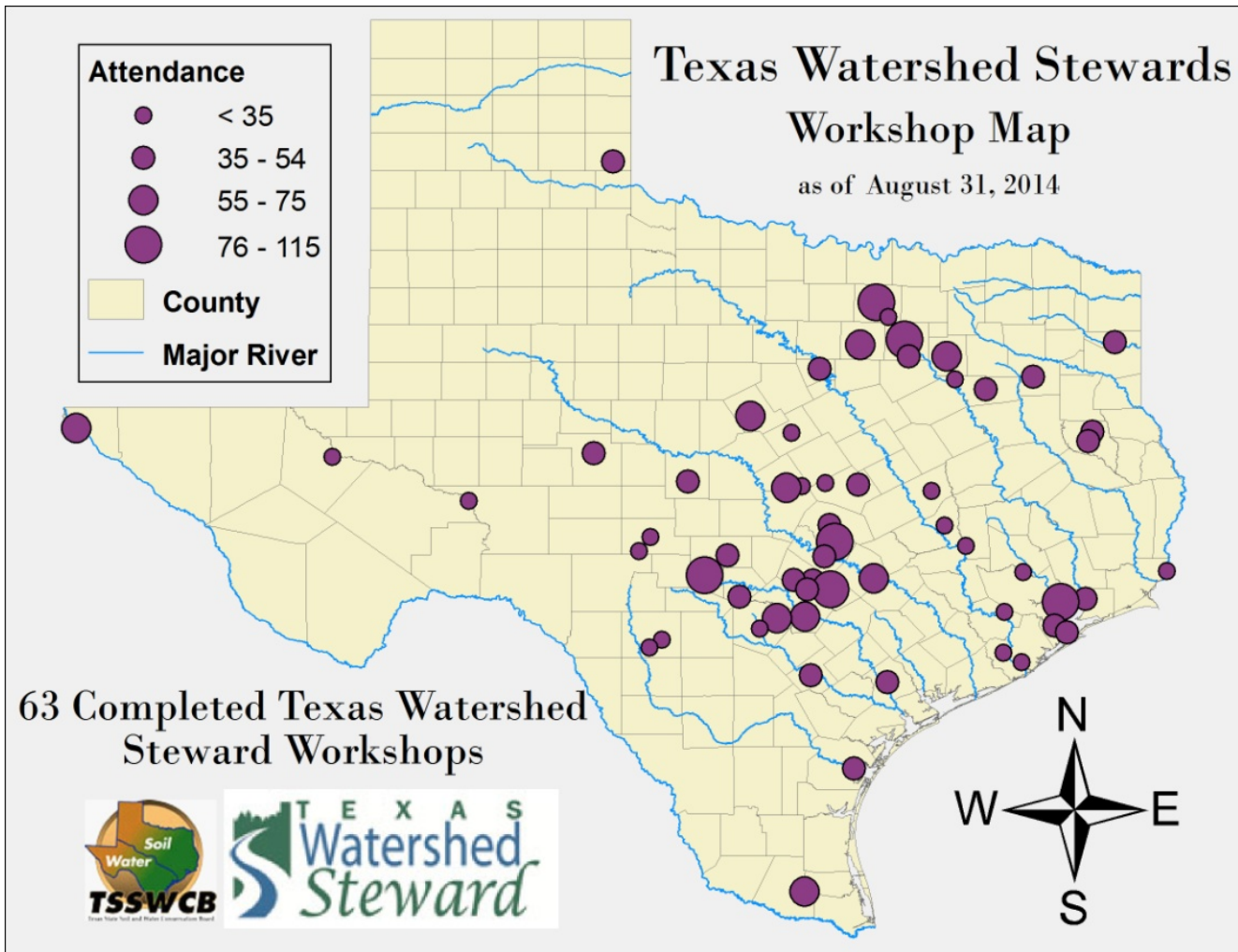
Due to the size of many watersheds in the state and the breadth of water quality issues in those watersheds, and in an effort to enhance continued citizen involvement, TWS trainings may be offered multiple times (2-3) and at different locations within selected watersheds. A minimum of 10 workshops will be conducted annually in selected watersheds.

*Computer-Based Tools.* The computer-based training components of TWS will be advertised on a statewide basis. Citizens unable to attend face-to-face events will be encouraged to utilize the web-based version of the training. CD-ROMs will be distributed upon request to individuals in areas where Internet access is limited. The web-based distance learning tool is available on the TWS website (<http://tws.tamu.edu>). Registered individuals that complete the training via online or computer-based access will also receive a certificate once pre- and post-tests have been completed.

*Evaluation and Assessment.* Both the face-to-face and computer-based training programs will include an evaluation component to assess program effectiveness and allow on-going assessment and enhancement of curriculum content to achieve project goals. A two-phase evaluation approach will be used to measure both knowledge and behavior changes of individuals participating in the program.

Phase 1. A pre-/post-test evaluation strategy will be utilized for both the face-to-face and computer-based training programs. A combination of multiple choice, true/false, and short answer questions will be used to quantify knowledge gained by participants. In addition, the post-test will include 'satisfaction' and 'intention to adopt' questions. Tests will be designed and evaluated using scanning technology and software to expedite analysis and minimize data entry errors.

Phase 2. A six-month follow-up evaluation will also be administered to participants online. Emails will be sent to program participants to ascertain what practices were actually adopted six months after participating in the program.



<b>Tasks, Objectives and Schedules</b>						
Task 1	Project administration					
Costs	Federal	\$24,424	Non-Federal	\$5,118	Total	\$29,542
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	Extension 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 15 <sup>th</sup> of January, April, July, and October. QPRs will be distributed to all project partners.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.2	Extension 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 36	
Subtask 1.3	Extension will host coordination meetings or conference calls, at least quarterly, with project partners to discuss project activities, project schedule, communication needs, deliverables, and other issues. Extension will develop lists of action items needed following each project coordination meeting and distribute to project personnel.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.4	Extension, with assistance from SSL, will continue to host and maintain a website ( <a href="http://tws.tamu.edu/">http://tws.tamu.edu/</a> ) to serve as a public clearing house for all project related information. All workshop information as well as the web-based training program will be available on this website.					
	Start Date	Month 1		Completion Date	Month 36	
Subtask 1.5	Extension 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 36	
Deliverables	<ul style="list-style-type: none"> <li>• QPRs in electronic format.</li> <li>• Reimbursement forms and necessary documentation in hard copy format.</li> <li>• Project website.</li> <li>• Final report in electronic and hard copy formats.</li> </ul>					

<b>Tasks, Objectives and Schedules</b>						
Task 2	Coordinate and deliver watershed-based TWS trainings in selected watersheds throughout Texas.					
Costs	Federal	\$317,526	Non-Federal	\$66,523	Total	\$384,049
Objective	Facilitate statewide delivery of the TWS program to increase local understanding of the forces which can adversely impact water resources and to provide access to the knowledge and tools which can be employed to prevent and/or resolve them. Enhance stakeholder involvement in WPP and TMDL development processes by educating citizens about their watersheds and the opportunities and critical importance of local stakeholder involvement. Promote the formation of local watershed action groups to take leadership for local watershed education and protection activities.					
Subtask 2.1	Extension will employ an Extension Program Specialist who will serve as the full-time TWS Program Coordinator and will be responsible for the general oversight and coordination of all project activities and for promoting, coordinating, and delivering the TWS watershed-based training events and computer-based tools.					
	Start Date	Month 1	Completion Date	Month 3		
Subtask 2.2	Extension will work in concert with state and local organizations to select locations for the watershed-based TWS training events. Extension will coordinate efforts with state agencies and organizations involved in WPP/TMDL processes or who are planning future WPP/TMDL processes in specific watersheds. Additional watersheds may be selected based on impairment status, environmental sensitivity, and/or other priority issues identified by a partner agency or organization. Extension and TSSWCB will periodically make a collaborative decision to re-prioritize and add to/remove from the list of watersheds.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 2.3	Extension will actively market watershed-based TWS trainings through news releases (A&M AgriLife News and local media outlets), Internet postings, newsletter announcements, public/conference presentations, flyers, etc., to enhance awareness and utilization.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 2.4	Extension will deliver at least 10, 7-hour TWS training events in selected watersheds annually.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 2.5	Extension will foster the establishment of local watershed action groups spawned by the TWS program. Extension will work with state and local organizations to develop and/or provide more detailed, resource specific education and training resources and action oriented activities that can be delivered and/or undertaken in watersheds where those issues are identified as most significant.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 2.6	Extension will attend and participate in meetings, as appropriate, in order to communicate project goals, activities and accomplishments to affected parties. Such meetings may include, but are not limited to, Clean Rivers Program Basin Steering Committees, the Texas Watershed Planning Short Course, Texas Watershed Coordinator Roundtables, and the TSSWCB Regional Watershed Coordination Steering Committee.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	<ul style="list-style-type: none"> <li>List of specific watersheds where TWS trainings have been and will be implemented, updated routinely.</li> <li>Schedules, agendas, and attendance lists for TWS trainings.</li> <li>Copies of press releases, newspaper articles, newsletters, public information statements, etc., as developed and disseminated.</li> </ul>					

<b>Tasks, Objectives and Schedules</b>						
Task 3	Distribute and manage computer-based training tools for the TWS program.					
Costs	Federal	\$44,830	Non-Federal	\$9,382	Total	\$54,212
Objective	Manage, update, and promote web-based TWS curriculum and associated program materials to expand participation in the TWS program by 1) supporting different adult learning styles and preferences, 2) providing flexible learning opportunities for interested citizens who have time and/or mobility constraints, and 3) enabling ready access to program resources statewide (i.e., watersheds not targeted for WPP or TMDL development).					
Subtask 3.1	Extension, with assistance from SSL, will manage and update web-based versions of the TWS program. Program information will be reviewed every six months and updates made as needed.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 3.2	Extension will actively market computer-based TWS resources through news releases (AgriLife News and local media outlets), Internet postings, newsletter announcements, public/conference presentations, flyers, etc., to enhance utilization of the computer-based tools.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 3.3	Extension will track website usage and on-line course completion.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	<ul style="list-style-type: none"> <li>• Press releases, newspaper articles, newsletters, public information statements, etc., as developed and disseminated.</li> <li>• Tracking report of website usage.</li> <li>• List of web-based TWS curriculum completion certificate awardees.</li> </ul>					

<b>Tasks, Objectives and Schedules</b>						
Task 4	Evaluate the effectiveness of watershed- and computer-based TWS training tools.					
Costs	Federal	\$22,411	Non-Federal	\$4,297	Total	\$26,708
Objective	To measure both knowledge and behavior changes of individuals participating in the TWS program using a phased evaluation approach.					
Subtask 4.1	Extension will conduct pre-/post-test evaluations of watershed- and computer-based trainings to measure knowledge gained by participants regarding watershed principles, impairments, and appropriate BMPs to reduce NPS pollution; to determine participant's intentions to change their behavior as a result of the program; and, to evaluate participant satisfaction with the program.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 4.2	Extension will administer a 6-month follow-up evaluation to assess actions taken and practice adoption by participants.					
	Start Date	Month 1	Completion Date	Month 36		
Subtask 4.3	Extension will analyze results obtained from Phase 1 (pre-/post-tests) and Phase 2 (6-month follow-up) evaluations using descriptive, correlational, and analysis of variance statistical procedures. Results will be used to periodically evaluate and modify TWS program materials and incorporated into the final report.					
	Start Date	Month 1	Completion Date	Month 36		
Deliverables	<ul style="list-style-type: none"> <li>• Pre-/post-test evaluations for watershed- and computer-based TWS trainings.</li> <li>• Six-month follow-up evaluation assessments for watershed- and computer-based TWS trainings.</li> <li>• Results from evaluations</li> </ul>					

**Project Goals (Expand from Summary Page)**

This project will continue statewide implementation of the TWS program through watershed-based trainings and computer-based distance education components. The broad project goals are to:

- Increase stakeholder involvement in WPP and/or TMDL development processes.
- Promote healthy watersheds by increasing citizen awareness, understanding, and knowledge about the nature and function of watersheds, potential impairments, and watershed protection strategies to minimize NPS pollution.
- Enhance interactive learning opportunities for watershed education across the state and establish a larger, more well-informed citizen base.
- Empower individuals to take leadership roles in community and watershed-level water resource issues.

**Measures of Success (Expand from Summary Page)**

- Delivery of a minimum of 30 watershed-based TWS trainings in selected watersheds.
- Number of citizens participating in watershed-based TWS trainings.
- Delivery of the computer-based training components of the TWS program.
- Number of citizens utilizing the computer-based training components of the TWS program.
- Increased knowledge and understanding of watershed management by individuals participating in the program, as measured by pre-/post-tests and 6-month follow-up evaluations.
- Increased adoption of BMPs as indicated by pre-/post-tests and 6-month follow-up evaluations.

**2012 Texas NPS Management Program Reference (Expand from Summary Page)**

**Components, Goals, and Objectives**

Component 1 – Explicit short- and long-term goals, objectives and strategies that protect surface...water

LTG: To protect and restore water quality from NPS pollution through assessment, implementation and education

1. Focus NPS abatement efforts ...and available resources in watersheds identified as impacted by NPS pollution.
2. Support the implementation of state, regional, and local programs to prevent NPS pollution through assessment ...and education.
6. Develop partnerships, [and] relationships ...to facilitate collective, cooperative approaches to manage NPS pollution.
7. Increase overall public awareness of NPS issues and prevention activities.
8. Enhance public participation and outreach by providing forums for...ideas and concerns about the water quality management process.

STG Three – Education: Conduct education and technology transfer activities to help increase awareness of NPS pollution and activities which contribute to the degradation of water bodies... by NPS pollution.

- Objective A – Enhance existing outreach programs at the state, regional, and local levels to maximize the effectiveness of NPS education.
- Objective B – Administer programs to educate citizens about water quality and their potential role in causing NPS pollution.
- Objective F – Implement public outreach and education to maintain and restore water quality in waterbodies impacted by NPS pollution.
- Objective G – Implement public outreach and education to maintain and restore water quality in water bodies impacted by NPS pollution.

Component 2 – Working partnerships... to appropriate State, ...regional, and local entities, private sector groups, and Federal agencies.

Component 3 – Balanced approach that emphasizes both statewide NPS programs and on-the-ground management of individual watersheds



**EPA State Categorical Program Grants – Workplan Essential Elements  
 FY 2011-2015 EPA Strategic Plan Reference**

Strategic Plan Goal – Goal 2. Protecting America’s Waters

Strategic Plan Objective – Objective 2.2. Protect and Restore Watersheds and Aquatic Ecosystems

**Part III – Financial Information**

**Budget Summary**

Federal	\$	409,191	% of total project	83%
Non-Federal	\$	85,320	% of total project	17%
Total	\$	494,511	Total	100%
<b>Category</b>				
		<b>Federal</b>	<b>Non-Federal</b>	<b>Total</b>
Personnel	\$	198,976	\$ 23,877	\$ 222,853
Fringe Benefits	\$	61,436	\$ 6,641	\$ 68,077
Travel	\$	28,400	\$ 0	\$ 28,400
Equipment	\$	0	\$ 0	\$ 0
Supplies	\$	16,200	\$ 0	\$ 16,200
Contractual	\$	0	\$ 0	\$ 0
Construction	\$	0	\$ 0	\$ 0
Other	\$	50,806	\$ 0	\$ 50,806
<b>Total Direct Costs</b>				
	\$	355,818	\$ 30,518	\$ 386,336
<b>Indirect Costs</b>				
	\$	53,373	\$ 8,545	\$ 61,918
<b>Unrecovered IDC</b>				
	\$	0	\$ 46,257	\$ 46,257
<b>Total Project Costs</b>				
	\$	409,191	\$ 85,320	\$ 494,511

<b>Budget Justification (Federal)</b>		
Category	Total Amount	Justification
Personnel	\$ 198,976	<ul style="list-style-type: none"> <li>• Project Director (0.1 FTE yrs 1-3; \$23,877)</li> <li>• Program Specialist (1.0 FTE yrs 1- 3; \$175,099)</li> </ul>
Fringe Benefits	\$ 61,436	Fringe benefits are calculated at a rate of 18% of salary to cover FICA, UCI, WCI, and retirement. An additional amount of \$647/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 FY2015.
Travel	\$ 28,400	Funds will be used to support travel to and from TWS training events: up to 12 locations/year x 1 nights x 4 individuals (Program Specialist and other Extension personnel necessary for support of training events) x \$152per night + mileage at the state rate for trips ranging from 100-400 miles roundtrip, fuel and/or rental vehicles (\$25,730); Travel to state and national meetings: 10 trips x 1 night x 1 individual x 152 per night + mileage, fuel, airfare and/or vehicle rental (\$2,670) .
Equipment	\$ 0	N/A
Supplies	\$ 16,200	Certificates: 1 certificate per participant x 50 participants/workshop x 12 workshops/yr x \$0.89 per certificate (\$1,600), plastic bins (\$100), rainfall simulator - runoff troughs (\$100), printing costs for TWS training events: \$222 per event x 12 events/yr (\$8,000), brochures and fact sheets: 1 brochure and factsheet per participant x 50 participants/workshop x 12 workshops/yr x \$0.78 per brochure and factsheet (\$1,400), program supplies (\$5,000)
Contractual	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 50,806	<ul style="list-style-type: none"> <li>• Printing costs for TWS curriculum manuals (up to 12 locations/year x 3 years x 50 participants/training x \$16.67/manual = \$30,006)</li> <li>• Web server and site hosting costs for the web-based TWS training components (\$3,400)</li> <li>• ADP/Computer Services (2,000)</li> <li>• Software licensing fees (1,800)</li> <li>• Projector and screen (\$800)</li> <li>• Advertising and Postage (\$2,000)</li> <li>• 1 cell phone and service plan (\$2,200)</li> <li>• Certified planners CEU trainer fees (\$2,400)</li> <li>• Conference Fees (\$2,000)</li> <li>• Facility Rental: \$117/event x 12 events/yr (\$4,200)</li> </ul>
Indirect	\$ 53,373	15% of Total Federal Direct Costs per TSSWCB FY2015 RFP for CWA, §319(h) NPS Grant Program

<b>Budget Justification (Non-Federal)</b>		
Category	Total Amount	Justification
Personnel	\$ 23,877	Project Director (0.1 FTE yrs 1-3)
Fringe Benefits	\$ 6,641	Fringe benefits are calculated at a rate of 18% of salary to cover FICA, UCI, WCI, and retirement. An additional amount of \$647/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 FY2015.
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	\$ 8,545	28% of Total Non-Federal Direct Costs
Unrecovered IDC	\$ 46,257	Unrecovered Indirect Costs of 13% of Total Federal Direct Costs (difference between project-allowed indirect costs (15%) and the standard Texas A&M AgriLife Extension Service indirect cost rate of (28%))