



**Texas State Soil and Water Conservation Board
 Section 319(h) Nonpoint Source Program
 FY 2008 Project 08-03**

NONPOINT SOURCE SUMMARY PAGE for the CWA, Section 319(h) Agricultural/Silvicultural Nonpoint Source Program					
Title of Project:	Texas Silvicultural Nonpoint Source Pollution Prevention and Abatement				
Project Goals:	The major goal of this project is to protect and improve water quality in Texas. The extensive education, training, and outreach components of this project will lead to an increase in forestry BMP implementation, as well as preventing unnecessary erosion and sedimentation from occurring. Another goal is to provide technical assistance to the forestry community on emerging issues – biomass, urban forestry, and land stewardship in Central Texas. Lastly, effectively coordinating project efforts with Soil and Water Conservation Districts (SWCDs), natural resource agencies, and other organizations is a critical goal of this project.				
Project Tasks:	1) Project Administration 2) Education and Outreach 3) Evaluation of BMP Implementation 4) Technical Assistance Delivery 5) BMP Development / Technical Assistance / Education / Outreach – Emerging Issues in Forestry, 6) Project Coordination				
Measures of Success:	An increase in overall forestry BMP implementation to 92% will show the success of this project. Other measures include improving BMP implementation on family forest lands, documenting an increase in the tons of sediment prevented from eroding and reaching streams, and providing over 600 contact hours of training on BMPs to the forestry community.				
Project Type:	Implementation (X); Education (X); Watershed Planning (); Assessment (); Groundwater ()				
Status of Water Body: 2004 Water Quality Inventory and 303(d) List	Segment ID: 0401 0403 0508, 0511	Parameter: Mercury, pH Depressed DO Bacteria, DO, pH	Category: 5c 5a 5a		
Project Location: (Statewide or County and Watershed Name)	<p>Counties: Anderson, Angelina, Austin, Bandera, Bell, Bexar, Blanco, Bosque, Bowie, Brazoria, Brown, Burnet, Caldwell, Callahan, Camp, Cass, Chambers, Cherokee, Coke, Coleman, Comal, Comanche, Concho, Coryell, Delta, Eastland, Edwards, Erath, Fannin, Fisher, Fort Bend, Franklin, Freestone, Galveston, Gillespie, Gregg, Grimes, Guadalupe, Hamilton, Hardin, Harris, Harrison, Hays, Henderson, Hood, Hopkins, Houston, Hunt, Jasper, Jefferson, Jones, Kaufman, Kendall, Kerr, Kimble, Lamar, Lampasas, Leon, Liberty, Llano, Madison, Marion, Mason, Matagorda, McCulloch, Medina, Menard, Milam, Mills, Montgomery, Morris, Nacogdoches, Newton, Nolan, Orange, Palo Pinto, Panola, Parker, Polk, Rains, Real, Red River, Rockwall, Runnels, Rusk, Sabine, San Augustine, San Jacinto, San Saba, Schleicher, Shackelford, Shelby, Smith, Somervell, Stephens, Sutton, Taylor, Titus, Tom Green, Travis, Trinity, Tyler, Upshur, Van Zandt, Walker, Waller, Wharton, Williamson, Wood</p> <p>Watersheds: Austin-Oyster, Austin-Travis Lakes, Bois D'arc-Island, Brady, Buchanan-Lyndon B. Johnson, Buffalo-San Jacinto, Caddo Lake, Cedar, Central Matagorda Bay, Cibola, Concho, Cowhouse, Dry Devils, East Fork San Jacinto, East Galveston Bay, East Matagorda Bay, Hondo, Hubbard, Jim Ned, Lake Fork, Lake O' the Pines, Lampasas, Leon, Little, Little Cypress, Llano, Lower Angelina, Lower Brazos, Lower, Colorado, Lower Neches, Lower Sabine, Lower Sulphur, Lower Trinity, Lower, Trinity-Kickapoo, Lower Trinity-Tehuacana, Medina, Middle Brazos-Lake Whitney, Middle Brazos-Palo Pinto, Middle Colorado, Middle Colorado-Elm, Middle Neches, Middle Sabine, North Bosque, North Galveston Bay, North Llano, Nueces Headwaters, Pecan Bayou, Pedernales, Pine Island Bayou, Sabine Lake, San Bernard, San Gabriel, San Marcos, San Saba, South Llano, Spring, Sulphur Headwaters, Toledo Bend Reservoir, Upper Angelina, Upper Clear Fork Brazos, Upper Colorado, Upper Devils, Upper Guadalupe, Upper Neches, Upper Sabine, Upper San Antonio, Village, West Fork San Jacinto, West Galveston Bay, West Nueces, White Oak Bayou</p>				
Key Project Activities:	Hire Staff (); Surface Water Quality Monitoring (); Technical Assistance (X); Education (X); Implementation (); BMP Implementation Monitoring (X); Demonstration (); Planning (); Modeling (); Bacterial Source Tracking (); Other ()				
NPS Management Program Elements:	1) Coordinate and administer the NPS program to support the implementation of TMDL Implementation and/or Watershed Protection Plans and 2) Conduct education and technology transfer activities to help increase awareness of NPS pollution				
Project Costs:	Federal:	\$506,327	Non-Federal Match:	\$337,551	Total: \$843,878
Project Management:	Texas Forest Service				
Project Period:	December 1, 2008 – February 29, 2012				

Part I – Applicant Information

Applicant							
Project Lead		Hughes Simpson					
Title		BMP Coordinator					
Organization		Texas Forest Service					
E-mail Address		hsimpson@tfs.tamu.edu					
Street Address		2127 S First Street (Hwy 59 S)					
City	Lufkin	County	Angelina	State	TX	Zip Code	75901
Telephone Number	936-639-8180			Fax Number	936-639-8185		

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 the Texas Commission on Environmental Quality.
Texas Forest Service (TFS)	Provide leadership and direction for overall project implementation, management, administration, and coordination of activities with partners.
Texas Forestry Association (TFA)	Assist with education, training, provide framework for organization of cooperators, provide communication within forestry community

Part II – Project Information

Project Type

Surface Water	<input checked="" type="checkbox"/>	Groundwater	<input type="checkbox"/>				
Does the project implement recommendations made in a Watershed Protection Plan or TMDL Report or Implementation Plan?				Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
If yes, identify the document. (Approved or Draft)		Lake O' The Pines (LOP) TMDL and Draft Implementation Plan, Adams and Cow Bayou TMDL					
If yes, identify the agency/group that developed and/or approved the document.		LOP– Texas Commission on Environmental Quality (TCEQ) Adams and Cow Bayou – TCEQ			Year Developed		2006/2008 2007

Watershed Information

Watershed Name(s)	Hydrologic Unit Code (8 Digit)	Segment ID	305 (b) Category	Size (Acres)
Lake O' The Pines	11140305	0403	4a	568,301
Adams and Cow Bayou	12010005	0508, 0511	4a	1,697,847

Project Narrative

Problem/Need Statement

Many waterbodies in East Texas have been placed on the 2006 303(d) List for dissolved oxygen impairments. These impairments may be caused by point source and/or nonpoint source (NPS) contamination. Significant forestry production occurs in this region, making it vital to implement silvicultural best management practices (BMPs) to abate and prevent NPS pollution.

Several of the waterbodies mentioned above are in the process of developing a TMDL Implementation or Watershed Protection Plan to address their impairment. As part of these plans, TFS will conduct training, educational, and outreach programs for landowners, foresters, loggers, and the general public that promote the proper implementation of forestry BMPs to protect water quality in these priority watersheds. To measure the effectiveness of the educational component of this project, TFS will also monitor BMP implementation on forestry operations occurring in these areas, as well as throughout East Texas. The efforts of this project will play an integral role in ensuring that an improvement in water quality is achieved.

Emerging issues in forestry are starting to come to the forefront, primarily due to the environmental movement and increased support for developing alternative energy sources that is occurring across the United States. These issues include woody biomass for electrical generation and fuel, the environmental benefits of urban forests, and Central Texas land stewardship. It is critical for TFS to take a proactive approach in addressing these issues to prevent any future water quality impacts from occurring.

The TSSWCB is the lead agency for planning, implementing, and managing programs and practices for preventing agricultural and silvicultural nonpoint source pollution.

Past TFS projects have resulted in the institutionalization of various BMP programs. For example, forest products companies, who own multi-million dollar manufacturing facilities, now have a process in place for auditing their suppliers for BMP implementation on the tracts they harvest. They have also developed internal BMP training workshops, requiring attendance by their employees and contractors. Both of these programs are modeled after ones created by TFS.

TFS personnel recommend BMPs to be installed in all applicable management plans written for forest landowners. TFS Foresters share their working knowledge of BMPs with landowners in one-on-one interactions. BMP programs have become a regular component of landowner meeting discussions and public interest groups regularly request silvicultural BMP presentations.

The continuation of a strong, statewide presence through educational outreach and implementation evaluations is necessary. BMP implementation evaluations are the best measure of success for the non-regulatory program. Evaluations also ensure targeted BMP implementation within critically sensitive areas as well as identify any weaknesses in the BMP guidelines. This project will continue to offer BMP educational programs to additional audiences, including absentee landowners. A comprehensive approach with continuing interagency coordination and public involvement will also be crucial.

Project Narrative

General Project Description (Include Project Location Map)

This project will prevent impacts to water quality from silvicultural NPS pollution by completing a statewide evaluation of silvicultural BMP implementation, providing technical assistance, education, outreach, and coordination of project activities with the forestry community.

It is necessary to assess the voluntary adoption of Texas' recommended BMPs by forest landowners and producers. In fact, due largely to the past performance of previous educational projects, private landowners have reached an all time high in BMP implementation. However, further evaluation shows that some BMPs may not be installed correctly or at all in some areas. These critical areas will be identified by the implementation evaluation task of this project. A statewide evaluation program will track voluntary BMP implementation by conducting 150 assessments of recently logged tracts. Data will be entered into a computer database for storage and retrieval. Global Positioning Systems (GPS) and Geographic Information Systems (GIS) will be used to record BMP site evaluations and their proximity to 303(d)-listed stream segments. A final report will be produced at the end of this project, documenting the results.

Quantification of load reductions can be modeled using BMP implementation monitoring results. This will be done by using the Forest Land Erosion Evaluation for East Texas methodology developed by George Dissmeyer, USDA Forest Service Region 8 Hydrologist (retired). The results are derived from a comparison of estimated sedimentation, assuming current levels of BMP implementation compared to zero levels. This method draws from average erosion rates and recovery periods for various soil disturbances developed by Mr. Dissmeyer using the Modified Universal Soil Loss Equation on over 9,000 silvicultural sites. An updated GIS model is currently under development, and after evaluation, may also be used to quantify load reductions resulting from the implementation of this project

The TFS, in cooperation with local soil and water conservation districts (SWCDs), will offer technical assistance to varying interest groups. BMP workshops will be provided to foresters, logging contractors, forest landowners, and other interested groups that focus on the proper implementation of BMPs. TFS foresters provide forestry and water quality expertise to thousands of people every year through individual interactions. These types of interactions are vital to increasing BMP implementation rates and will continue throughout the project.

Educational outreach programs will also be an integral part of this task. New and innovative technology transfer such as commercials and hands-on interactive displays will educate and encourage project participation. Local media will be used to promote project tasks, and a silviculture newsletter will promote various BMPs to landowners and natural resource professionals. This will increase communication, maintaining frequent, periodic technology transfer between natural resource professionals and forest landowners.

A major focus of this project will be conducting the many activities listed above in the watersheds that need them the most. TMDL Implementation Plans and Watershed Protection Plans are being developed for Caddo Lake, Lake O' The Pines, and Adams and Cow Bayou. This project will serve to facilitate the education, outreach, training, and monitoring outlined in those plans.

In addition to focusing efforts on impaired watersheds, this project will also take a proactive approach at addressing emerging issues in forestry. Producing energy from woody biomass is a hot topic, and is potentially on the verge of being a significant supplier of alternative energy for our nation. It is critical to gain a better understanding of this process so environmental impacts can be prevented. Urban forests can play a major role in protecting water quality in our metropolitan areas. Land stewardship in Central Texas is imperative due to the explosive population growth this area is experiencing. TFS will investigate and provide technical assistance on these issues.

The TFS will lead and coordinate this project. The agency will maintain the excellent coordination among federal, state, and local agencies and entities, ensuring effective performance. The TFS will continue to lead the wetland BMP coordinating committee. The agency will also be an active participant in the SGSF water resources committee and four-state BMP meeting. The TFS will supply all project deliverables to the TSSWCB project manager. Finally, the TFS will cooperate with and involve SWCDs and TSSWCB field representatives in all project activities, as appropriate.

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, 2006 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).

SegID: 0401

Caddo Lake

From the Louisiana State Line in Harrison/Marion County to a point 12.3 km (7.6 miles) downstream of SH 43 in Harrison/Marion County, up to pool elevation of 168.5 feet (impounds Big Cypress Creek)

0401_01 Lower 5000 acres
 mercury in edible tissue 5c 1996

0401_02 Harrison Bayou arm
 depressed dissolved oxygen 5c 2000
 mercury in edible tissue 5c 1996
 pH 5c 1996

0401_03 Goose Prairie arm
 depressed dissolved oxygen 5c 2000
 mercury in edible tissue 5c 1996
 pH 5c 1996

0401_05 Clinton Lake
 depressed dissolved oxygen 5c 2000
 mercury in edible tissue 5c 1996
 pH 5c 1996

0401_06 Pine Island
 mercury in edible tissue 5c 1996

0401_07 Mid-lake near Uncertain
 depressed dissolved oxygen 5c 2000
 mercury in edible tissue 5c 1996

0401_08 Remainder of segment
 mercury in edible tissue 5c 1996

SegID: 0403

Lake O' the Pines

Water body location: From Ferrell's Bridge Dam in Marion County to a point 1.0 km (0.6 miles) downstream of US 259 in Morris/Upshur County, up to normal pool elevation of 228.5 feet (impounds Big Cypress Creek)

Upper 3700 acres
 Depressed dissolved oxygen 5a

SegID: 0508

Adams Bayou Tidal

From the confluence with the Sabine River in Orange County to a point 1.1 km (0.7 miles) upstream of IH 10 in Orange County

0508_01 Lower 3 miles of segment
 bacteria 5a 1996
 depressed dissolved oxygen 5a 1996

0508_02 2 mile reach near Western Avenue

bacteria	5a	1996
depressed dissolved oxygen	5a	1996

0508_03 1 mile reach near Green Avenue

depressed dissolved oxygen	5a	1996
bacteria	5a	1996

0508_04 Upper 2 miles of segment

bacteria	5a	1996
depressed dissolved oxygen	5a	1996

SegID: 0508A

Adams Bayou Above Tidal (unclassified water body)

From a point 1.1 km (0.7 miles) upstream of IH 10 in Orange County to the upstream perennial portion of the stream northwest of Orange in Orange County

0508A_01 Entire bayou above tidal

bacteria	5a	2000
depressed dissolved oxygen	5a	2000

SegID: 0508B

Gum Gully (unclassified water body)

From the confluence of Adams Bayou to the upstream perennial portion of the stream northwest of Orange in Orange County

0508B_01 Entire creek

bacteria	5a	2000
depressed dissolved oxygen	5a	2000

SegID: 0508C

Hudson Gully (unclassified water body)

From the confluence with Adams Bayou to the headwaters near US 890 in Pinehurst in Orange County

0508C_01 Entire creek

bacteria	5a	2002
depressed dissolved oxygen	5a	2002

SegID: 0511

Cow Bayou Tidal

From the confluence with the Sabine River in Orange County to a point 4.8 km (3.0 miles) upstream of IH 10 in Orange County

0511_01 Lower 5 miles

bacteria	5a	2000
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0511_02 6 mile reach near FM 105

depressed dissolved oxygen	5a	2000
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0511_03 5 mile reach near FM 1442 (north crossing)

bacteria	5a	2000
depressed dissolved oxygen	5a	2000

0511_04 Upper 4 miles

depressed dissolved oxygen	5a	2000
pH	5a	2000
bacteria	5a	2000

SegID: 0511A

Cow Bayou Above Tidal (unclassified water body)

From a point 4.8 km (3.0 miles) upstream of IH 10 in Orange County to the upstream perennial portion of the stream northeast of Vidor in Orange County

0511A_02 Upper 5.3 miles of above-tidal reach

depressed dissolved oxygen	5a	2000
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SegID: 0511B

Coon Bayou (unclassified water body)

From the confluence with Cow Bayou up to the extent of tidal limit in Orange County

0511B_01 Entire tidal reach

bacteria	5a	2000
depressed dissolved oxygen	5a	2000

SegID: 0511C

Cole Creek (unclassified water body)

From the confluence of Cow Bayou west of Orange in Orange County to the upstream perennial portion of the stream south of Mauriceville in Orange County

0511C_01 Entire tidal reach

bacteria	5a	2000
depressed dissolved oxygen	5a	2000

SegID: 0511E

Terry Gully (unclassified water body)

From the confluence with Cow Bayou in Orange County to the headwaters northeast of Vidor in Orange County

0511E_01 Entire creek

bacteria	5a	2002
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Tasks, Objectives and Schedules						
Task 1:	Project Administration					
Costs:	Federal:	\$37,974.50	Non-Federal:	\$25,316.34	Total:	\$63,290.84
Objective:	To effectively administer and monitor all work performed under this project including technical and financial supervision, preparation of status reports, and maintenance of project files and data. TFS will perform accounting functions for project funds and be responsible for developing timely and accurate reports. Progress reports shall document all activities performed within a quarter and shall be submitted by the 15 th of January, April, July, and October.					
Subtask 1.1:	TFS will prepare electronic quarterly reports for submission to the TSSWCB.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 1.2:	TFS will coordinate quarterly meetings (in person or via conference call) as appropriate with project partners to discuss project activities, project schedule, lines of responsibility, communication needs, and other requirements.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 1.3:	TFS will submit appropriate Reimbursement Forms.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 1.4:	TFS will develop the Final report.					
	Start Date:	Month 35		Completion Date:	Month 39	
Deliverables	<ul style="list-style-type: none"> • Quarterly Reports • Reimbursement Forms • Final Report 					

Tasks, Objectives and Schedules						
Task 2:	Education and Outreach					
Costs:	Federal:	\$101,265.34	Non-Federal:	\$67,510.23	Total:	\$168,775.57
Objective:	To increase water quality / BMP awareness to forest landowners, natural resource professionals, and the general public throughout East Texas. Specifically, TFS will focus on the following priority watersheds: Adams & Cow Bayou, Lake of the Pines, and Caddo Lake.					
Subtask 2.1:	The TFS, in cooperation with TSSWCB, will conduct BMP training workshops for loggers, foresters, and landowners for the promotion of conservation programs.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 2.2:	The TFS will distribute a newsletter to forest landowners and natural resource professionals in priority areas.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 2.3:	The TFS will coordinate county landowner association workshops, seminars, and tours.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 2.4:	The TFS will develop and provide educational information to absentee forest landowners.					
	Start Date:	Month 1		Completion Date:	Month 39	
Deliverables	<ul style="list-style-type: none"> • Newsletters to forest landowners and natural resource professionals in priority watersheds • Agendas and list of attendees for BMP training workshops, tours and seminars • Agendas of county landowner association meetings • Educational materials for absentee landowners 					

Tasks, Objectives and Schedules						
Task 3:	Evaluation of BMP Implementation					
Costs:	Federal:	\$151,898.01	Non-Federal:	\$101,265.34	Total:	\$253,163.35
Objective:	To assess the voluntary adoption of Texas' recommended BMPs by forest landowners.					
Subtask 3.1:	The TFS, in cooperation with SWCDs, will conduct 150 BMP implementation evaluations on tracts that meet suitability criteria.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 3.2:	The TFS will create and maintain a BMP GIS database for twelve digit HUCs.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 3.3:	The TFS, in cooperation with SWCDs, will prepare and distribute a BMP Implementation Report to landowners and other interested entities.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 3.4:	The TFS will analyze and compare BMP implementation data collected during this project to past TSSWCB projects (FY02 and FY05) to quantify load reductions and identify future educational outreach needs.					
	Start Date:	Month 1		Completion Date:	Month 39	
Deliverables	<ul style="list-style-type: none"> • 150 site BMP implementation evaluations • BMP implementation Rate Evaluation Report • Produce GIS maps that document site evaluations in relation to 303(d) listed streams 					

Tasks, Objectives and Schedules						
Task 4:	Technical Assistance Delivery					
Costs:	Federal:	\$75,949.01	Non-Federal:	\$50,632.67	Total:	\$126,581.68
Objective:	To provide technical assistance to foresters, landowners, loggers and other interested groups on the proper implementation of BMPs.					
Subtask 4.1:	The TFS will provide BMP technical assistance during evaluations to loggers, landowners, and foresters, if applicable.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 4.2:	The TFS will provide technical assistance to individual forest landowners with an emphasis on the priority watersheds.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 4.3:	The TFS will actively promote the Tree Farm Program.					
	Start Date	Month 1		Completion Date	Month 39	
Subtask 4.4:	The TFS will revise the forestry BMP guidelines as new technology arises.					
	Start Date	Month 1		Completion Date	Month 39	
Deliverables	<ul style="list-style-type: none"> • Revised Texas Forestry BMP Handbook • Number of Tree Farm Inspections and Recertifications 					

Tasks, Objectives and Schedules						
Task 5:	BMP Development / Technical Assistance / Education / Outreach – Emerging Issues in Forestry					
Costs:	Federal:	\$101,265.34	Non-Federal:	\$67,510.23	Total:	\$168,775.57
Objective:	To increase water quality / BMP awareness and provide technical assistance to landowners, natural resource professionals, and the general public on emerging issues.					
Subtask 5.1:	The TFS will promote land stewardship in Central Texas to prevent water quality impacts.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 5.2:	The TFS will promote the importance of Urban Forests in protecting water quality.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 5.3:	The TFS will provide technical assistance, education and outreach to ensure there are no impacts to water resources from harvesting woody biomass.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 5.4:	The TFS will coordinate training workshops, seminars, tours, and provide technical assistance on these emerging issues.					
	Start Date:	Month 1		Completion Date:	Month 39	
Deliverables	<ul style="list-style-type: none"> • Educational materials on emerging issues in forestry • Agendas and list of attendees for BMP training workshops, seminars, and tours 					

Tasks, Objectives and Schedules						
Task 6:	Project Coordination					
Costs:	Federal:	\$37,974.50	Non-Federal:	\$25,316.34	Total:	\$63,290.84
Objective:	To effectively coordinate project activities with natural resource agencies and project participants.					
Subtask 6.1:	The TFS will continue to host the Wetland / BMP coordinating committee.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 6.2:	The TFS will work with local media to promote project goals and objectives.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 6.3:	The TFS will participate in the four-state BMP meeting. This meeting is conducted biennially and brings together representatives from state and federal agencies, academia, forest industry, private landowners, and non profit organizations in Arkansas, Louisiana, Oklahoma, and Texas.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 6.4:	The TFS will actively participate in the Southern Group of State Foresters Water Resources Committee.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 6.5:	The TFS, TSSWCB, SWCDs, NRCS, USDA Forest Service , EPA, and TFA will maintain their excellent cooperative relationship.					
	Start Date:	Month 1		Completion Date:	Month 39	
Subtask 6.6	The TFS will attend local Soil and Water Conservation District meetings and the Annual State Meeting of SWCD Directors, as appropriate.					
	Start Date	Month 1		Completion Date	Month 39	
Deliverables	<ul style="list-style-type: none"> • Agendas and list of attendees that participate in the Wetland/BMP, 4-state BMP, and SGSF Water Resource committee meetings • Newspaper articles 					

Project Goals (Expand from NPS Summary Page)

- 1.) To improve water quality in Texas and the 303(d)-listed segments' watersheds through the implementation of BMPs.
- 2.) To provide technical assistance to landowners, loggers, and foresters.
- 3.) To increase the awareness and general understanding of BMPs to forest landowners, natural resource professionals and the general public.
- 4.) To coordinate project efforts with natural resource agencies, and project participants.
- 5.) To assess and map silvicultural BMP implementation.
- 6.) To proactively address emerging issues in forestry.

Measures of Success (Expand from NPS Summary Page)

Increase forestry BMP implementation

The numerous education, training, outreach, and technical assistance that will be provided throughout the course of this project will increase voluntary BMP implementation to 92%, an all time high in the history of the program. BMP implementation on Family forest lands, traditionally the lowest segment among landowner types, will also show improvement. Other areas identified as needing improvement, stream crossings, skid trails, and streamside management zones, will also show improvement.

Increase in Load Reductions and Soil Savings

Load reductions will be calculated using the Forest Land Erosion Evaluation for East Texas methodology developed by George Dissmeyer, USDA Forest Service Region 8 Hydrologist (retired). The results are derived from a comparison of estimated sedimentation, assuming current levels of BMP implementation compared to zero levels. This method draws from average erosion rates and recovery periods for various soil disturbances developed by Mr. Dissmeyer using the Modified Universal Soil Loss Equation on over 9,000 silvicultural sites. An increase to show over 100,000 tons of soil savings (erosion) and 12,000 tons of sedimentation prevention will show the success of this project.

Provide numerous contact hours on BMP training to the forestry community

Conducting over 600 contact hours of BMP training to the forestry community will show the success of this project. This training will consist of regular "core" BMP workshops as well as focused sessions on stream crossings, forest roads, and streamside management zones and online refresher courses. Training will also be provided to TFS field staff. Educational seminars will also be presented to forest landowners.

2005 Texas Nonpoint Source Management Program Document Reference (Expand from NPS Summary Page)

Goals &/or Milestone(s)

This project addresses the following short term goals from the 2005 Texas Nonpoint Source Management Plan:

1.) Implementation

Implement state-approved TMDL Implementation Plans and Watershed Protection Plans developed to restore and maintain water quality in water bodies identified as impacted by nonpoint source pollution.

2.) Education

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

This project also addresses the following Milestone from the 2005 Texas Nonpoint Source Management Plan:

- 1.) Implement voluntary and regulatory actions in the watershed and adjust the BMP implementation based on follow-up verification monitoring of effectiveness.

Part III – Financial Information

Budget Summary			
Federal 319(h)	\$ 506,327	% of total project	60%
Non-Federal	\$ 337,551	% of total project (at least 40%)	40%
Total Cost	\$ 843,878	Total project %	100%
Category	Federal	Non-Federal	Total
Personnel	\$258,680	\$262,000	\$520,680
Fringe Benefits	\$83,604	\$0	\$83,604
Travel	\$19,500	\$0	\$19,500
Equipment	\$0	\$0	\$0
Supplies	\$9,000	\$0	\$9,000
Contractual	\$32,500	\$0	\$32,500
Construction	\$0	\$0	\$0
Other	\$37,000	\$27,120	\$64,120
Total Direct Costs	\$440,284	\$289,120	\$729,404
Indirect Costs (≤15%)	\$66,043	\$48,431	\$114,474
Total Project Costs	\$506,327	\$337,551	\$843,878

The §319(h) Nonpoint Source Program has a 60/40% match requirement. Your entity will be reimbursed 60% from federal funds and must contribute a minimum of 40% of the costs to conduct your project. The 40% match must be from non-federal sources and should be described in your budget detail. Indirect costs are limited to 15%. The project budget generally covers a three year period.

Budget Justification (Federal)		
Category	Total Amount	Justification
Personnel & Fringe Benefits	\$ 342,284	One BMP forester will spend 100% of his time assisting with the implementation of this project. A second BMP Forester will spend 24% of his time assisting the other project foresters with professional duties for two years. The BMP project specialist will spend 62% of their time assisting with the implementation of the project.
Travel	\$ 19,500	Overnight travel in-state, at an average of 1 trip per month for each of the two project foresters and project leader, is estimated to cost \$13,068 (\$85 per night lodging and \$36 per night per diem.) Out of state travel includes 4 trips for the project leader and 1 for each of the project foresters for a total cost of \$6,432 (\$1,072 per trip – meals, registration, lodging, and travel).
Equipment	\$ 0	N/A
Supplies	\$ 9,000	Office supplies (pens, paper, ink cartridges, folders, fax film, etc.) are estimated to cost \$3,200 over the course of the project. Computer, software, and other field data collection equipment (GPS units) are estimated to cost \$5,800.
Contractual	\$ 32,500	Aerial detection is required to obtain a quality, randomly selected sample for BMP Implementation monitoring. East Texas can be covered in 9 missions, costing a total of \$4,500 (9 missions at \$500 per mission). Printing/postage charges for Texas Water Source newsletters, reports, and landowner meeting announcements. Newsletters will cost a total of \$7,650 (\$637.5 per issue x 12 issues). The BMP Implementation monitoring report will cost \$600 (\$3 per copy x 200 copies). Landowner meeting announcements cost a total of \$6,750 (\$750/meeting * 3 meetings/yr * 3 years). Other BMP project publications/postage are estimated to cost approximately \$13,000.
Construction	\$ 0	N/A
Other	\$ 37,000	Fuel, maintenance, and repair expenses are necessary to ensure proper functioning vehicles to conduct BMP implementation monitoring, meetings with landowners, and periodic trips to Austin, Dallas, and Temple for project coordination. At an average of 1,000 miles per month for two project foresters, expenses are estimated at \$24,960 (2 employees x 1,000 miles x \$.32/mile x 39 months). Copier rental is estimated at \$65 per month for 39 months for a total of \$2,535. Utilities (telephone, internet, power, water, etc.) are expected to cost on average \$243.72 per month for a total of \$9,505.
Indirect	\$ 66,043	Recovered indirect cost (15%).

Budget Justification (Non-Federal)		
Category	Total Amount	Justification
Personnel & Fringe Benefits	\$ 262,000	The BMP Project Leader will spend 50% of his time on the project and is responsible for the overall leadership of the project. One BMP forester will spend 100% of his time assisting with the implementation of this project. Texas Forest Service professional staff (Managers, District Foresters, technicians, etc.) will play a critical role in delivering the BMP message, accounting for \$138,175 in match expenses (6 @ 15%). All of these positions are funded with state appropriations.
Travel	\$ 0	N/A
Equipment	\$ 0	N/A
Supplies	\$ 0	N/A
Contractual	\$ 0	N/A
Construction	\$ 0	N/A
Other	\$ 27,120	TFS partners with many cooperating entities to achieve project goals. The TFA provides financial support by printing BMP handbooks (\$5,120), supporting forest landowner meetings (\$10,000), logger training workshops (\$5,000), and promoting BMPs through billboard advertising (\$7,000).
Indirect	\$ 48,431	TAMU system indirect rate is 26%. Unrecovered indirect cost (11%).