

Texas Silvicultural Nonpoint Source Project FY05 EPA 319(h) Grant

Executive Summary

Between September 2005 and November 2008, \$574,521 of EPA 319(h) funds and \$383,014 of Texas Forest Service (TFS) matching funds allowed the TFS BMP Project to:

- Prevent 12,387 tons of sediment per year from entering East Texas streams
- Prevent 91,520 tons of erosion from occurring on East Texas forestlands
- Monitor 152 tracts for BMP implementation, storing and compiling data in an Access database, and mapping data in ArcView GIS format
- Extend data collection on the BMP Effectiveness Monitoring Project for 1 year
- Conduct 18 BMP workshops across East Texas for loggers, foresters, and TFS field personnel reaching over 500 people
- Develop a new logger BMP training workshop focusing on stream crossings
- Produce a statistical guide for BMP implementation monitoring design and analysis
- Certify 89 new and recertify 123 existing Tree Farms in East Texas
- Coordinate a leadership training workshop for forest landowner associations
- Set up the informative BMP display with literature at various locations reaching thousands of individuals
- Bring an interactive BMP presentation to civic groups and other organizations reaching nearly 3,000 individuals
- Publish and mail 12 issues of the *BMP Informer* newsletter to 1,830 landowners in Hardin, Jefferson, and Orange counties
- Publish and mail 12 issues of the *Forest Stewardship Briefings* newsletter to 1,650 natural resources-related professionals throughout Texas
- Publish numerous BMP articles in county forest landowner newsletters, the Texas Forestry Association newspaper, the Texas Logging Council magazine, and newspapers
- Coordinate an aggressive advertising campaign that includes radio public service announcements and billboards, reaching over a million people

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TASK 1: Statewide Evaluation of BMP Adoption through Implementation Monitoring

Objective: To assess the voluntary adoption of Texas' recommended BMPs by forest landowners.

Subtask 1.1 The TFS, in cooperation with SWCDs, will conduct 150 BMP implementation evaluations on tracts that meet suitability criteria.

- **152 post-harvest evaluations were conducted on recent harvest operations across East Texas. The results of this can be found in Appendix A.**



Project forester conducting a BMP implementation monitoring evaluation.

Subtask 1.2 The TFS will provide BMP technical assistance during evaluations to loggers, landowners, and foresters, if applicable.

- **Project foresters provided technical assistance to landowners, loggers, and foresters during BMP implementation evaluations.**

Subtask 1.3 The TFS will create and maintain a BMP database, including GIS data, for twelve digit Hydrologic Unit Codes (HUCs), as provided by the TSSWCB.

- **A BMP database was created and maintained to store implementation monitoring data, including geographic coordinates and Hydrologic Unit Codes.**

Subtask 1.4 The TFS, in cooperation with SWCDs, will prepare and distribute a BMP Implementation Report to landowners and other interested entities.

- **The Round 7 BMP Implementation Report was published and posted to the TFS website.**
- **A 15 year analysis of BMP Implementation monitoring in Texas was published and posted to the TFS website. The report documents the tremendous improvement in BMP implementation since the monitoring program began.**

Subtask 1.5 The TFS, in cooperation with the SWCDs, will produce a statistical guide for BMP Implementation Monitoring in the Southeastern United States.

- **A Statistical Guide for BMP Implementation Monitoring was produced and distributed to the thirteen Southern states. This will allow the states to easily conduct statistical analysis on their results.**

Subtask 1.6 The TFS will calculate load reductions for preventing erosion and sedimentation from occurring on East Texas forestlands and streams.

- **Erosion and sedimentation load reductions were calculated using the Forest Land Erosion and Sedimentation Evaluation created by George Dissmeyer, U.S. Forest Service hydrologist (retired). See Appendix A.**
- **A new erosion / sedimentation prediction model for Southern forestry operations was created based on the WEPP model. It will be used to calculate future load reductions.**

Deliverables:

- * 150 site evaluations with educational feedback to each forest landowner

152 site evaluations were conducted

- * BMP implementation Rate Evaluation Report

See Appendix A

- * Produce GIS maps, which document BMP implementation sites in relation to 303(d)-listed segments.

See Appendix A

- * Statistical Guide for BMP Implementation Monitoring

See Appendix A

- Erosion and sedimentation load reduction calculations

See Appendix A

TASK 2: Technical Assistance Delivery

Objective: To provide technical assistance to landowners, loggers, foresters, and other interested groups.

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.

- **A total of 14 BMP training workshops were conducted, reaching over 400 people**
 - **Regular logger BMP workshops (5)**
 - **BMP stream crossing workshops (7)**
 - **Texas Forest Service Personnel (2)**



Stream crossings score lower than other categories on site evaluations. This workshop provides additional training.



The workshops consist of both a class and field session.



Training was provided to TFS personnel on how to construct waterbars on firelines.

- **BMP training was also provided to the following:**
 - **Hancock Forest Management Personnel**
 - **Rayonier Personnel**
 - **Temple Inland Contractors**
 - **Texas Logging Council**
- **The online logger bmp training course was updated.**

Subtask 2.2 The TFS will develop and provide educational information to absentee forest landowners.

- **Project staff created several informative brochures for landowners including:**
 - **SFI landowner packets**
 - **BMP insert for Forest Stewardship plans**
 - **Cost share programs and BMPs**
- **The BMP website was constantly updated to provide educational information.**

Subtask 2.3 The TFS will investigate wetland and wetland timber use mitigation.

- **Project leader attended the Ecosystem Services conference in Houston, Texas.**
- **Toured the Katy-Cypress, Greens Bayou, and Temple-Inland wetland mitigation banks to learn more about wetland mitigation banking.**
- **Project leader attended Basic Wetland Delineation Training in Dallas, TX.**
- **Reviewed the new Florida BMP guidelines addressing cypress harvesting in wetlands utilizing the mat logging technique.**

Subtask 2.4 The TFS will provide technical assistance to individual forest landowners in 303(d) listed watersheds.

- **Project foresters provided valuable and timely technical assistance to numerous landowners through phone conversations, emails, and site visits.**



Project foresters provide technical assistance to landowners

- **Developed BMP guidelines and provided technical assistance to landowners conducting salvage operations resulting from natural disasters.**

Subtask 2.5 The TFS will promote the Tree Farm Program to forest landowners.

- **Project staff attended Tree Farm Inspector training.**
- **Project forester served as the Area 6 Tree Farm Chairman.**
- **Project forester certified 89 new Tree Farms and recertified 123 current Tree Farms since 2005.**



State and Area 6 Tree Farm chair present a landowner with his sign after certification.

Subtask 2.6 The TFS will provide leadership training to the Texas Forest Landowners Council.

- **Project staff coordinated leadership training for the Texas Forest Landowners Council. This training was conducted on August 8, 2008 in Lufkin for 40 volunteer landowner association leaders.**



Leadership training held for the Texas Forest Landowners Council.

Deliverables

- * Agendas for 3 BMP trainings per year

See Appendix B

- * Number of online BMP refresher course participants

See Appendix B

- * List of Tree Farm Certifications and Reinspections

See Appendix B

- * Leadership training materials provided to TFLC

See Appendix B

TASK 3: BMP Education

Objective: To increase water quality and BMP awareness to forest landowners, natural resource professionals, and the general public

Subtask 3.1 The TFS will give BMP presentations to organizations in 303(d)-listed segment watersheds.

- **Project staff made BMP presentations to the following:**
 - **Angelina / Nacogdoches Forest Landowners Association**
 - **Houston County Rotary Club**
 - **Jasper / Newton County Landowners Association**
 - **Longview Lions Club**
 - **Longview Rotary Club**
 - **Metroplex Timber and Forestry Association**
 - **Plum Creek Watershed Protection Plan Steering Committee**
 - **Stephen F. Austin Forestry / Environmental Science classes**
 - **Texas Agricultural Lifetime Leadership group**
 - **Texas State Envirothon competition**
 - **Trinity County Forest Landowners Association**
 - **Numerous Forest Awareness Tours**



BMP presentation made to Stephen F. Austin students.

Subtask 3.2 The TFS will coordinate and participate in the Teachers Conservation Institute.

- **Project staff attended planning meetings for the Teachers Conservation Institute.**
- **Project staff participated in the following sessions:**
 - **2006 Teachers Conservation Institute – Phase II**
 - **2007 Teachers Conservation Institute – Phase II**
 - **2008 Teachers Conservation Institute – Phase II**



BMP / water quality presentation to participants of the Teachers Conservation Institute.

Subtask 3.3 The TFS will distribute a quarterly newsletter to natural resource professionals in Texas, including state and federal agency personnel.

- Twelve quarterly issues of the *Forest Stewardship Briefings* newsletter were published and mailed to approximately 1,650 natural resource professionals, state representatives and senators, county commissioners and judges, and others statewide.

Subtask 3.4 The TFS will distribute a quarterly newsletter to forest landowners in 303(d) listed watersheds.

- Twelve quarterly issues of the *Golden Triangle BMP Informer* newsletter were mailed to 1,830 landowners in Hardin, Jefferson, and Orange counties.

Subtask 3.5 The TFS will coordinate forestry tours for groups who are interested in promoting BMPs.

- Project staff coordinated the following tours:
 - 2005 SAF National Convention Water Resources tour
 - 2006 Jones State Forest Family Field Day
 - 2006 Wetlands / BMP meeting - Mitigation Bank tour
 - 2007 Central Texas water issues tours
 - 2007 Metroplex Timber and Forestry Association
 - 2007 Tree Farm Tour
 - 2008 NCASI Forest Watershed Task Group
 - 2008 Pecos River Restoration tour
 - 2008 Metroplex Timber and Forestry Association



BMP tour for the Metroplex Timber and Forestry Association.

Subtask 3.6 The TFS will coordinate county landowner association workshops (Start Date: Month 1; Completion Date: Month 34)

- **Project foresters coordinated and presented at numerous SFI sponsored landowner workshops. These meetings focus on the importance of using BMPs, reforestation, wildlife management and sustainable forestry. Presentations were made at the following county landowner association meetings (CLOA):**
 - **2006 Cherokee County (Jacksonville)**
 - **2006 Metroplex Timber and Forestry Association (Dallas)**
 - **2006 Southeast Texas (Kountze)**
 - **2007 Jasper / Newton County (Newton)**
 - **2007 Montgomery / Harris (Conroe)**
 - **2007 Tri-County Timber Growers (San Augustine)**
 - **2008 Harrison / Panola County (Carthage)**
 - **2008 Houston County (Crockett)**
 - **2008 Northeast Texas Timber Owners (Jefferson)**

Subtask 3.7 The TFS will display a BMP exhibit at local businesses, county fairs, and other suitable locations in 303(d)-listed segment watersheds.

- **The BMP exhibit was displayed at the following locations:**
 - **2006 Family Forest Fun Day and Equipment Show**
 - **2006 Jones State Forest Family Field Day**
 - **2006 Teachers Conservation Institute**
 - **2007 Forest Landowner Tailgate Party**
 - **2008 Family Forest Fun Day and Equipment Show**



BMP Display at the Jones State Forest Family Field Day and the Forest Landowners Tailgate Party.

Deliverables

- * Agenda for the Teachers Conservation Institute
See Appendix C.
- * Twelve newsletters to natural resource professionals
See Appendix C.
- * Twelve newsletters to forest landowners
See Appendix C.
- * List of Forestry Tours focusing on BMPs to interested groups
See Appendix C.
- * Photos and log of display booth exhibits
See Appendix C.

TASK 4: Project Coordination

Objective: To coordinate project efforts with natural resource agencies, and project participants.

Subtask 4.1 The TFS will continue to host the Wetland /BMP coordinating committee.

- **The Texas Forest Service hosted 2 Wetland/BMP coordinating committee meetings.**
 - (2006) Longview
 - (2007) Longview



The Wetland / BMP Coordinating committee is made up of representatives from state and federal agencies, academia, and private organizations.



This group meets annually to discuss BMP / wetland issues related to forestry. A field tour is included every two years.

Subtask 4.2 The TFS will participate in the bi-annual four state BMP meeting.

- **BMP personnel assisted in the planning and actively participated in the 2007 (Oklahoma) four state BMP meeting. Texas will host the next one in 2009.**



The four state BMP meeting is held biennially and provides attendees an opportunity to share ideas among Region 6.



A field tour is included in these meetings.

Subtask 4.3 The TFS, TSSWCB, SWCDs, NRCS, USDA Forest Service and EPA will maintain their excellent cooperative relationship.

- **Numerous water quality meetings were attended by BMP personnel including:**
 - **Caddo Lake Watershed Protection Plan**
 - **Orange County TMDL Steering Committee**
 - **Plum Creek Watershed Protection Plan**
 - **2006 TSSWCB District Directors Annual Meeting**
 - **NETMWD TMDL steering committee in Hughes Springs**
 - **TCEQ/TSSWCB NPS Stakeholders Advisory Group Meeting in Austin**

- Several meetings were held with TSSWCB and EPA to brief them on BMP activities.
- Developed Texas Forest Service's role in the Lake o' the Pines TMDL Implementation Plan.
- BMP personnel attended all TFA committee meetings they were members including:
 - Sustainable Forestry Initiative State Implementation Committee
 - New Sustainable Forestry Initiative Standard
 - Environmental and Regulatory Affairs
 - Logger Training Task Force
 - BMP Task Force
 - Communications
 - Administrative
- BMP personnel attended local and state Society of American Foresters meetings.
- BMP personnel attended all Texas Forestry Association annual meetings.
- BMP personnel attended all Texas Logging Council annual meetings.
- BMP personnel attended Stream Restoration and Applied Fluvial Geomorphology training.

Subtask 4.4 The TFS will work with local media in 303(d)-listed segment watersheds to promote project tasks.

- Installed two new BMP billboards in East Texas and relocated an existing billboard to a better location. Currently, these billboards are located in Atlanta, Conroe, and Livingston.



These billboards are viewed by over 20,000 vehicles a day.

- Published 38 BMP Q & A format article in the magazine *Texas Logger*, the monthly publication of the Texas Logging Council.
- Aired BMP public service announcements on local radio stations.
- The natural resources reporter for Lufkin Daily News utilized a multi-media approach (web video and newspaper article) to create a feature on BMPs and the Effectiveness Monitoring project.



A Lufkin Daily News reporter did a feature on BMPs and water quality.

Subtask 4.5 The TFS will actively participate in the Southern Group of State Foresters Water Resource Committee.

- **Project Coordinator attended three regional BMP meetings hosted by the Southern Group of State Foresters Water Resources Committee. This committee is made up of the 13 southern state BMP coordinators. This group meets annually to provide training and promote consistency among BMP programs across the region.**
 - **South Carolina (October 2005)**
 - **Texas (October 2006)**
 - **Kentucky (October 2007)**
 - **North Carolina (October 2008)**
- **Project staff submitted information to develop a BMP exhibit for the committee. This display highlights the work that is being done by the committee and in the southern states.**



The display was created in 2007 and is available for states to borrow to exhibit at local events.

- **Project leader served on several sub-committees including:**
 - **Significant Risk to Water Quality Indicators**
 - **Regional BMP Implementation Monitoring Protocol**
 - **Regional BMP Implementation Monitoring Report**
 - **Statistical Guidebook for BMP Implementation Monitoring**

- **Project forester coordinated and hosted the SGSF's Roundtable for Sustainable Forestry meeting which was held in Lufkin.**

Subtask 4.6 The TFS will closely follow the Healthy Forest Restoration Act.

- **Title 3 of the Healthy Forest Restoration Act (Watershed Forestry Assistance) was authorized for funding; however, money was not appropriated. This legislation would have provided additional incentives for landowners to implement BMPs.**

Deliverables

- * Agendas and list of participants that attend the Wetland / BMP Coordinating Committees, 4-state BMP meeting, and SGSF Water Resources Committee

See Appendix D

- * Newspaper articles

See Appendix D

TASK 5: Effectiveness Monitoring

Objective: To assess the effectiveness of Texas' recommended BMPs during forestry operations

Subtask 5.1 The TFS will extend the FY 03 BMP Effectiveness Monitoring Project for 1 year.

- **Data collection on the Effectiveness Monitoring Project was extended for one year.**



Routine storm sample check.

Deliverables:

- * Results from additional year of BMP effectiveness monitoring

See Appendix E

- * BMP Effectiveness Monitoring final report

See Appendix E