Texas Silvicultural Nonpoint Source Project

Final Report
FY 99 EPA 319(h) Grant

TEXAS FOREST SERVICE
The Texas A&M University System

Texas Forest Service
Lufkin, Texas
May, 2002

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FY99 EPA 319(h) Grant

Executive Summary

Between May 1999 and April 2002, $358,757 of EPA 319(h) funds and $239,172 of Texas Forest Service (TFS) matching funds allowed the TFS BMP Project to:

- Prevent 11,831 tons of sediment per year from entering East Texas streams
- Prevent 95,961 tons of erosion from occurring on East Texas forestlands
- Implement forestry BMPs on 75 sites where water quality was at risk
- Monitor 150 tracts for BMP compliance, storing and compiling data in an Access database, and mapping data in ArcView GIS format
- Conduct 44 BMP workshops across East Texas reaching 1,174 loggers and foresters, bringing the total trained to date to 2,556
- Set up the attractive BMP display with literature at hundreds of locations reaching tens of thousands of individuals
- Bring an interactive BMP presentation to several civic groups and other groups reaching nearly 4,000 individuals
- Publish and mail 12 issues of the *Cypress Creek Basin BMP Informer* newsletter to 6,200 landowners in a nine-county area
- Publish and mail 12 issues of the *Forest Stewardship Briefings* newsletter to 1,700 natural resources-related professionals in the state
- Publish scores of BMP articles in county forest landowner newsletters, the Texas Forestry Association newspaper, and the Texas Logging Council magazine
- Enroll 10 landowners with 10,019 total acres in forestry water quality management plans

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PROGRAM TASK 1: BMP Implementation in Cypress Creek Watershed

Objective: This task will produce a direct and immediate improvement on water quality in the Cypress Creek watershed by installing BMPs on private land in critical areas.

Subtask 1.1 From BMP monitoring sites (Task 2), identify tracts where BMP installation and/or remediation is needed to remove significant risks to water quality.

- **Developed spreadsheet to track BMP installations.**
- **See Appendix A.**
- **Made recommendations to several landowners on BMP installation.**
- **BMP staff marked and GPSed the SMZs on the Fairchild State Forest for an upcoming timber sale.**

Subtask 1.2 With landowner and SWCD cooperation, install BMPs on the critical areas identified in Subtask 1.1.

- **BMPs were installed on 75 sites in critical areas.**

Before and after pictures of a forest road that had severe erosion and sedimentation occurring. This site was remediated by establishing vegetative cover.

Subtask 1.3 Map installations with GPS/GIS to geographically demonstrate proximity of installations to listed stream segments.

- **Project Forester organized and conducted the 6th Quarterly meeting of the East Texas**

GIS/GPS Users Group (ETUG). This group now has a listserv and a web site www.sra.dst.tx.us/basin/links/professional_groups/etug/ hosted by the Sabine River Authority. ETUG is comprised mostly of natural resource GIS professionals and serves as a network for problem solving and project ideas. 40 in attendance.

- **Basin boundaries were created in GIS and identified by hydrologic unit code and names.**
- **Attended an ETUG meeting to learn about new technology in the field of GIS.**
- **Project Forester attended GPS workshop.**
- **Obtained GIS base file layer from TNRCC documenting the listed stream segments on the 200 303(d) list.**
- **See Appendix A.**

Deliverables

* Install major forestry BMPs on 25 sites which are significant risks to water quality

  Major forestry BMPs were installed on 25 sites.

* Install minor forestry BMPs on 50 sites which are risks to water quality

  Minor forestry BMPs were installed on 50 sites.

* Using GPS/GIS, produce map which documents these sites in relation to listed stream segments

  See Appendix A.

* Enroll cooperating landowners in forestry water quality management plans (see Task 5)

  Enrolled 10 landowners and their properties in water quality management plans.

* Document installations with before/after pictures or descriptions

  See Appendix A.

* Make installations available for viewing by other landowners

  Installations can be viewed by other landowners in some areas.

* QAPP completed for information in Subtask 1.3 and Task 2

  Submitted to TSSWCB/EPA and approved before data collection began.

PROGRAM TASK 2: State-wide BMP Compliance Monitoring

Objective: The success of the forestry community in voluntarily complying with Texas' recommended BMPs will be assessed.

Subtask 2.1 In cooperation with SWCDs, conduct 150 BMP compliance evaluations on tracts that meet suitability criteria.

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

Project forester is examining a low water crossing and it's impact to water quality on a routine BMP Implementation monitoring site.

Subtask 2.2 Compile data in computerized database format for storage, retrieval, and analysis on watershed levels.

- **An Access database was developed and implemented to store and analyze the data. The results of this can be found in Appendix B.**
- **Created a separate BMP compliance monitoring database for the Cypress Creek watershed.**

- **Categorized Round 4 compliance data by hydrologic unit code.**
- **Classified forest Stewardship Plans for FY00 by watershed (8-digit HUC code).**

Subtask 2.3 Prepare and distribute to cooperators and other interested entities a report documenting the data gathered during evaluations.

- **Each landowner and logger (if known) were informed of the results of the compliance evaluation on their property. A sample letter can be found in Appendix B.**
- **Round 4 BMP Compliance Report was published, mailed out, and posted to the TFS website.**
- **Wrote an article for the TFA newspaper on results from Round 4.**
- **Wrote several articles on Round 4 compliance and sent to East Texas newspapers.**
- **Distributed Compliance Reports to TFA committees and informed forestry community that report is published on TFS website.**
- **Round 5 Compliance Report made available on TFS website.**

Subtask 2.4 Work closely with willing landowners with poor compliance evaluations to implement BMPs.

- **Recommendations for BMP improvement were made in all cases where BMPs are not up to standards.**
- **75 remediations were performed on tracts where a need was brought to the landowners attention.**
  - **See Appendix A.**

Deliverables

* 150 site evaluations with educational feedback to each forest landowner

See Appendix B.

* Final report of BMP compliance

See Appendix B.

* Report an increase in voluntary BMP compliance

An increase in BMP compliance was shown as compared to previous years.

See Appendix B.

PROGRAM TASK 3: Project Coordination

Objective: Project efforts are to be coordinated with other agencies and entities to produce synergy in the abatement of silvicultural NPS pollution.

Subtask 3.1 Coordinate project efforts with Cypress Valley Alliance.

- **Developed a great working relationship with the Director of the Cypress Valley Alliance.**

Subtask 3.2 Participate in and provide forestry expertise in TMDL development in Cypress Creek Basin.

- **Attended Northeast Texas Municipal Water District Board meetings and kept them informed of the FY99 Project.**
- **Attended and helped conduct TMDL public meetings in response to EPA's proposed rules relating to silviculture.**
- **Attended meetings and workshops that dealt with TMDLs and water quality:**
  - **Bowie/Cass Co. Soil and Water Conservation District meeting in Linden.**
  - **Workshop on fertilizing forestlands with poultry litter at Stephen F. Austin University.**
  - **Northeast Texas Resource Conservation and Development meeting in Paris.**
  - **National Council for Air and Stream Improvement (NCASI) Southern Regional Meeting in San Antonio.**
  - **"Managing Forests for Water Quality" meeting in Shreveport.**
  - **EPA Region 6 TMDL training in Dallas.**
- **Reviewed the Southern Forest Resource Assessment Summary Report.**

Subtask 3.3 Create a coordinating committee for forestry and water quality stakeholders in Cypress Creek Basin.

- **BMP staff coordinated, planned and attended BMP/Wetland Coordinating Committee meetings in Palestine, Longview, and Conroe.**

In March of 2001, the BMP Project conducted a field tour in conjunction with the annual BMP/Wetlands Coordinating Committee meeting.

The field tour in 2001 was a huge success, so it was continued for the 2002 meeting.

Subtask 3.4 Provide water quality training to county commissioners and county roads crews in Cypress Creek Basin.

- **Worked with the Cypress Valley Alliance to coordinate four county commissioner's meeting.**
- **Training sessions were conducted for Marion, Morris, and Upshur Counties.**

County commissioners and county road crews were trained in BMPs and water quality awareness.

Subtask 3.5 Provide water quality awareness training to resource developers in Cypress Creek Basin.

- **Worked with the Cypress Valley Alliance to conduct three water quality awareness training sessions to resource developers in the Cypress Creek Basin.**
- **As a result of this project task, there is interest to conduct another one session.**

Subtask 3.6 Maintain the excellent cooperative relationship between the TFS and TSSWCB, EPA, SWCDs, NRCS, and USDA Forest Service.

- **BMP staff coordinated a meeting and field tour with TSSWCB to discuss FY99 and FY02**

grants. Other meetings also held.

- **Wrote article to the TSSWCB highlighting the success of the FY99 Nonpoint Source Pollution Project.**
- **Updated the Texas Forestry Association's Board of Directors on EPA's proposed ruling on TMDLs and NPDES permitting.**
- **Attended and helped conduct public TMDL meetings in response to EPA's proposed rules relating to silviculture.**
- **Monitored and followed closely all aspects of EPA's proposed rules.**
- **Hosted the 2nd Biennial Four-State/EPA Forestry NPS Conference in Longview.**

In October of 1999, the TFS BMP Project hosted the 4-State/EPA Forestry NPS Conference in Longview, Texas.

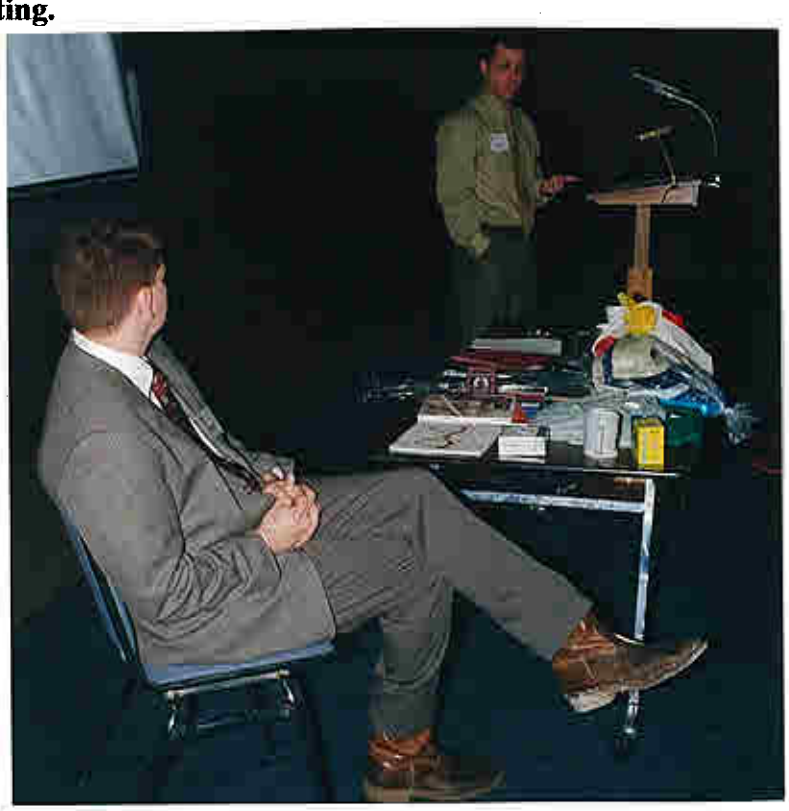
- **BMP staff attended the EPA Region 6 NPS Watershed Conference.**
- **In July of 2000, hosted a field tour in Northeast Texas for EPA representatives. The purpose of the tour was to expose them to forestry operations in East Texas.**

EPA representatives visiting an International Paper tract.

- **BMP staff assisted in the coordination with the Arkansas Forestry Commission of the 4-state BMP meeting to be held May 7–9 in Hot Springs, Arkansas.**
- **Project Forester met with Marion-Cass (Marion and Cass Co.), Sulphur-Cypress (Franklin, Titus, Morris, and Camp Co.), Rusk (Rusk Co.), Panola (Panola Co.), Upper Neches (Angelina Co.), Coastal (Jefferson Co.), Longleaf (Tyler Co.) and Pineywoods (San Augustine and Sabine Co.) SWCDs to promote forestry WQMPs.**
- **Met with NRCS and TSSWCB several times to work out details of forestry water quality management plans.**
- **Attended USFS Forest Stewardship Program meeting in San Antonio.**
- **Project Leader and Technician attended and presented at the State Stewardship Coordinating Committee Meeting. Topics presented were Forestry Water Quality Management Plans and the EPA proposed ruling on changes in silvicultural regulation.**
- **Project Leader attended the Texas Forest Landowner Council meetings in which water quality was a hot topic.**
- **Attended TNRCC Clean Rivers Program meeting in Austin.**
- **Attended TNRCC 303(d) list committee meetings in Austin.**
- **Attended TNRCC Agency TMDL Coordination Meeting in Austin.**

- **Project Leader attended the New Orleans AF&PA (forestry trade association) sponsored BMP Workshop with State Foresters from OK, TX, AR, LA, and MS.**
- **Met with AF&PA representative regarding SFI[SM] certification on state lands.**
- **Project Leader attended the Southern Group of State Foresters BMP task force meeting in Atlanta, GA. This group finalized the BMP Monitoring Protocol, developed a training review program for state water quality programs, and provided recommendations on the USDA Forest Service's State and Private Forestry water quality program.**
- **Worked closely with and had great cooperation with the Texas Forestry Association (TFA) – trade organization of the forest industry:**
  - **Project Leader served as Water Taskforce Chairman for Texas Forestry Association's (TFA) Environmental and Regulatory Affairs Committee for 2000.**
  - **Project Leader attended TFA Logger Training Task Force meetings to schedule workshops.**
  - **Project Leader and Forester attended TFA committee meetings to schedule landowner workshops, discuss recognition of forest landowners practicing good stewardship, AF&PA recommendations, and other activities.**
  - **Project Leader attended a Texas Sustainable Forestry Initiative[SM] (SFI) Committee meeting addressing issues dealing with inconsistent practices (those practices that are inconsistent with their guidelines – including BMP implementation).**
  - **BMP staff attended the TFA's Annual Meeting each year.**
- **Project Forester attended a planning meeting to outline a Water Quality Symposium: Water in East Texas – Crisis or Opportunity. Also attended this two-day symposium.**
- **Discussed Forestry BMPs with 35 Ag. Extension Agents on a field tour.**
- **Project Leader attended a seminar on the present drought conditions in the state.**
- **BMP Project foresters attended the Year 2000 State of the Waters Water Quality meeting in Dallas.**
- **BMP Project Forester attended workshops on Safety and Silviculture/Wildlife/Wetlands/ Endangered Species for loggers to become Pro Logger certified.**
- **BMP staff participated as water quality experts in a review of Texas forest industry lands by the Izaak Walton League of America.**
- **Project Leader attended the Southern State BMP Coordinators meeting in Franklin, NC. This group also toured the Coweeta Hydrologic Laboratory.**
- **Project Leader attended the Southern Group of State Foresters (organization of State Foresters from TX, LA, MS, AL, GA, FL, SC, NC, TN, AR, OK, KY, VA, Puerto Rico, and the US Virgin Islands) Annual Meeting in Austin.**
- **Active in National, State and local Society of American Foresters (SAF) – professional organization of foresters:**
  - **Project Leader attended the 1999 and 2000 National SAF meeting, serving as an alternate delegate and delegate to the House Society of Delegates, respectively.**
  - **Project Leader provides leadership to the Texas SAF (TSAF). Attended a planning meeting for the Annual TSAF meeting.**

- **Project Leader organized and attended the 1999 TSAF Annual Meeting.**
- **Project Leader served as the State TSAF Chair for 2000.**
- **Project Foresters has attended all TSAF annual meetings.**
- **Project Foresters have held all offices in the local chapter TSAF (Secretary/Treasurer, Vice Chair, and Chair) during this grant period. Their duties have included planning, coordinating and conducting all local chapter meetings and workdays.**
- **Project Leader and Project Forester attended the TSAF Executive Committee meeting.**
- **Project Forester met with 2002 Lufkin/Nacogdoches Chapter of TSAF administration to plan the next year's events; planned, coordinated and got sponsorships for the next Chapter meeting.**



Project leader, 2000 Chair of the Texas Society of American Foresters, looks on during a report by project forester regarding the local chapter.

- **Project Leader worked with promoting the Texas Reforestation and Conservation Act**

(SB977). This bill offers, among other things, a tax incentive for landowners who choose to maintain streamside management zones - 50% reduction on acres in SMZs.

- **Attended SB977 meeting in College Station to begin work on the details.**
- **Project leader delivered 8 SB977 meetings, 6 in East Texas and one each in Austin and Bastrop, for landowners and Chief Appraisers.**
- **Delivered SB977 meeting for public school superintendents.**
- **SB977 presentation to Brazos-Trinity Chapter TSAF.**
- **Completed zone determination requests on SMZs as directed by SB977.**
- **Gave SB977 presentation to Harris CFLOA.**
- **Gave presentation on SB977 to the Metroplex Timber and Forestry Association.**

County appraisers attended seminars on SB977.

- **BMP staff attended the TFS Annual Professional Development Meeting in College Station.**
- **Project Foresters completed the Leadership Development Program in College Station.**
- **Attended the Texas A&M System meeting on implementation of The Integrative Plan, a system-wide strategic plan.**
- **A review of the TFS BMP Project was conducted by the Director and Associate Director of the Texas Forest Service.**

- **Assisted Alex Tanter, TIAER, in gathering information on the cost of BMP implementation by scheduling a meeting and field tour.**

Deliverables

* Three scheduled meetings with TSSWCB

Numerous meetings with TSSWCB representatives were scheduled and attended
July 12-14, 2000 - meeting with tour
September 6-7, 2000 – meeting
May 24-25, 2001 – meeting with tour of plywood mill
July 5-6, 2001 – meeting
September 18-19, 2001 – meeting in Dallas
October 22-23, 2001 – meeting and Logger Training workshop
November 9, 2001 – meeting in Dallas
January 28, 2002 – met with Kevin Canfield to discuss FY99 and FY02 project status.

* Four water quality workshops for county commissioners

December 17, 2002 – Marion County commissioners
February 19, 2002 – Morris County commissioners
February 20, 2002 – Upshur County commissioners (2)

* Three water quality workshops for developers

April 15, 2002 – Marshall Board of Realtors
April 25, 2002 – East Texas Builders Association
April 30, 2002 – Marshall area contractors

* Provide forestry and water quality expertise for TMDL development

Attended TNRCC 303(d) list committee meetings in Austin.
Attended TNRCC Agency TMDL Coordination Meeting in Austin.

* Produce and document a well-coordinated program

See Appendix C

PROGRAM TASK 4: BMP Education

Objective: This task is to provide education to ensure acceptance and use of BMPs by the forestry community.

Subtask 4.1 Develop and provide educational information to absentee forest landowners who participate in metropolitan landowner associations.

- **Presented at the Lost Pines Landowner Association. Assisted in conducting a tour of the 1999 Outstanding Texas Tree Farm in Bastrop County. Attendees were from the Bastrop/Austin area.**
- **Created brochures and flyers to be handed out and posted to TFS website for the Metroplex Timber and Forestry Association (a forest landowner association of East Texas landowners that live in Dallas/Fort Worth metroplex which was revived by a previous 319(h) Silvicultural NPS project).**
- **Set up BMP display, talked with landowners at Metroplex Timber and Forestry Association Workshop at TAEX Research Center in Plano. (150 attendees).**
- **Gave presentations on Water Quality Management Plans and SB977 to the Metroplex Timber and Forestry Association.**
- **Developed agenda and tour sites for Metroplex Timber and Forestry Association (Dallas/Fort Worth) spring 2001 tour to East Texas. 18 attendees. See Appendix D.**
- **Coordinated efforts for and helped guide Metroplex Timber and Forestry Association (Dallas/Fort Worth) fall 2001 tour to East Texas. Gave presentations on marking and cruising timber. 21 attendees. See Appendix D.**

Metroplex landowners see an East Texas logging operation in action.

Landowners from the Dallas/Fort Worth Metroplex visit a USFS site.

- **Attended the National Forest Landowners Association Annual Meeting in San Antonio.**
- **Gave SB977 presentation to Harris CFLOA (Houston area).**

Subtask 4.2 Distribute quarterly newsletter to forestry and natural resources-related professionals in state.

- **Twelve quarterly issues of the *Forest Stewardship Briefings* newsletter were published and mailed to approximately 1,700 natural resource professionals, state representatives and senators, county commissioners and judges, and others.**

Subtask 4.3 Distribute quarterly newsletter to forest landowners in Cypress Creek Basin.

- **Twelve issues of the *Cypress Creek Basin BMP Informer* newsletter were distributed to approximately 6,200 landowners in Franklin, Titus, Morris, Camp, Harrison, Cass, Marion, Upshur, and Wood Counties.**

Subtask 4.4 Provide one-on-one technical assistance to forest landowners in Cypress Creek Basin.

- **Compiled lists of civic groups and the contact people in the watershed.**
- **Compiled list of forest landowners claiming the Timber Tax Status on county tax rolls. Used this list for *BMP Informer* newsletter mailing list.**

- **Countless one-on-one technical assists have been provided to landowners either in the field or over the phone.**
- **Provided BMP expertise to City of Gladewater regarding timber harvesting on Lake Gladewater.**
- **Worked with foresters on BMPs:**
  - **Trained all new TFS foresters in BMPs.**
  - **Planned BMPs on state forest timber sale.**
  - **Gave presentation on BMP compliance, stream classification, and wetlands to a group of Louisiana-Pacific foresters.**
  - **Trained group of procurement foresters (timber buyers) with Temple-Inland on interpreting the SMZ guidelines in the BMP handbook.**
- **BMP staff conducted and attended SB977 workshops.**
- **Reprinted 2500 BMP Handbooks at TFA's expense.**
- **Scheduled and coordinated SFI^{SM} meetings for Bowie/Red River, Wood/Upshur, Harrison, Franklin/Morris/Titus/Camp, and Cass Co. Forest Landowner Associations.**
- **Attended and chaired SFI^{SM} forest landowner task force meeting.**
- **Project Leader met with the Center for Executive Development at Texas A&M to discuss the Landowner Leadership Academy (leadership training for county landowner association presidents).**
- **Met with Cass Co. landowner regarding a BMP complaint to TNRCC Emergency Response Coordinator.**
- **Verified that the SMZ width and density on the Alto Watershed Project was in accordance with state recommended BMP guidelines.**
- **Information was made available on the World Wide Web:**

http://txforestservice.tamu.edu/forest_management/best_management_practices/index.html

  - **BMP literature such as brochures, handbook, EPA's silviculture/wetlands definitions, water quality management plans, product vendor list, and newsletters.**
  - **Results of "Round Four" and "Round Five" compliance monitoring data.**
  - **A "Virtual" tour of the J.H. Kirby and I. D. Fairchild State Forest BMP demonstration areas.**

Subtask 4.5 Display BMP exhibit at local businesses and other suitable locations in Cypress Creek Basin.

- **BMP display unit and literature displayed at:**
  - **Metroplex Timber and Forestry Association Workshop at TAEX Research Center in Plano (150 attendees)**
  - **2000 TSAF Annual Meeting**
  - **TAEX Field Day in Overton**
  - **Texas State Forest Festival in Lufkin each year (9,000 viewers for 3 years)**
  - **Texas Forestry Association Annual Meeting (two years) (600 attendees for 2 years)**

- **Texas A&M Ag. Conference in College Station (300 viewers)**
- **Cass County Appraisal District Office (300 viewers)**
- **Citizens National Bank in Jefferson (350 viewers)**
- **Cass County Municipal Museum - annual Wildflower Trails Festival (650 viewers)**
- **Cypress Valley Alliance building (750 viewers)**
- **Lamar County Fair (1,500 viewers)**
- **Marion Co. Fall Festival (1,600 viewers)**

The BMP display with literature has been viewed by thousands in public places and at special events.

Subtask 4.6 Work with local media in Cypress Creek Basin to promote project tasks.

- **Developed media plan for television and radio BMP commercials.**
- **Television:**
  - **Aired BMP commercial in northeast Texas on KTBS Channel 3. The commercial ran repeatedly for 1 week on two separate occasions.**
- **Radio:**
  - **Produced and aired two new BMP radio commercials.**
  - **Recorded public service announcements to advertise the TFS Timber Property Tax Workshop.**
- **Printed:**
  - **News releases were sent to newspapers in the watershed introducing the FY99 Grant and Project.**
  - **Article describing the FY99 project in the *Forest Stewardship Briefings* newsletter with circulation reaching 1,700 natural resource professionals.**
  - **Every month, published BMP Q and A format articles in the magazine *Texas Logger*, the monthly publication of the Texas Logging Council.**

- **BMP Q and A format articles in both the Houston and Trinity County Forest Landowner Association's newsletters.**
- **Posted BMP handbook on website in .pdf format, available for download.**
- **Articles about the 2000th logger trained in BMPs.**
- **Press release to advertise the TFS Timber Property Tax Workshop.**
- **Articles concerning using BMPs during salvage operations in response to ice damage in Northeast Texas.**
- **Newspaper articles regarding WQMPs in Northeast Texas.**
- **Articles in TFA's monthly newspaper, *Texas Forestry*, on WQMPs, BMP logger training and landowner meetings; has state-wide readership.**

- **Project Forester was interviewed by several media for comment on the EPA proposed rules regarding silviculture.**

Subtask 4.7 BMP presentations to civic groups in Cypress Creek Basin.

- **Mailed letters offering BMP presentations to civic clubs in the Cypress Creek area.**
- **BMP presentations given to:**
  - **Texas Chapter of Association of Consulting Foresters**
  - **Texas Forest Landowners Council meeting**
  - **Nacogdoches Kiwanis Club**
  - **Forestry presentation to Sierra Club**
  - **Big Thicket Science Conference in Beaumont**
  - **Jefferson Study Club**
  - **Jefferson DAR**
  - **East Texas Chief Appraisers**
  - **WQMP presentation to Woodville Lions Club**

BMP Forester gives BMP presentation to Civic Group.

- **BMP presentations were a part of the following Landowner Association Meetings:**
  - **Four-County (Franklin-Titus-Morris-Camp) Landowners Association (64)**
  - **Cass County Forest Owners Association (175)**
  - **Wood/Upshur Counties Forest Landowners Association (111) *New association formed as a result of this meeting**
  - **Harrison CFLOA (80)**
  - **Polk County Forest Landowners Association (CFLOA) (105)**
  - **Rusk Co. Timber Growers Association (90)**
  - **Lost Pines Landowners Association (40) *New association formed as a result of this meeting**
  - **Cherokee/Henderson CFLOA (60)**
  - **Trinity CFLOA (45)**
  - **Tyler CFLOA (60)**
  - **Jasper/Newton CFLOA (107)**
  - **Walker Co. Landowner and Timber Growers Association (40)**
  - **Southeast Texas FLOA (45)**
  - **Bowie/Red River Timber Growers Association (50)**
  - **Houston CFLOA (230)**
  - **Rusk/Smith CFLOA (100) *Inactive association revived as a result of this meeting.**

BMP presentations were given at several County Forest Landowner Association seminars.

- **Youth and teacher-related education in BMPs and water quality:**
  - **Water quality/BMP presentations at TFA's Teacher's Conservation Institute (TCI) each year. (12-18 attendees each year).**
  - **Elementary science and math teachers in San Jacinto Co.**
  - **Conducted water quality programs for 4th, 5th and 6th graders at local school – 30 in attendance.**
  - **Five 40-minute Project Learning Tree programs at the Ag. Heritage Day in Diboll reaching 130 students and teachers.**
  - **Water quality presentations to 950 5th graders in Houston's Backyard program in Conroe.**
  - **Participated in Walk-in-the-Forest at Bob Sandlin State Park, giving water quality presentation to school children.**
  - **Water quality programs to 140 local 5th graders.**
  - **Water quality programs to 110 local 7th grade students.**
  - **Water quality programs each year to 3rd, 4th and 5th graders at Texas Forestry Museum camp. (15 to 20 attendees each year).**
  - **Erosion presentation for Walk-in-the-Forest students at Atlanta State Park.**

Teachers learning about monitoring water quality at TFA's Teachers Conservation Institute.

- **Conducted Forest Ecology labs at Stephen F. Austin College of Forestry twice a year.**

Stephen F. Austin Forest Ecology lab discussing BMPs and water quality

- **BMP training for Panola College forestry students twice a year.**
- **Conducted 44 Continuing Education BMP Logger Workshops. Total to date (since 1995): 102 sessions and 2,556 attendees.**

BMP Logger Workshops involve classroom and field sessions.

A special ceremony was held when the 2000th logger completed the BMP workshop. (Pictured L-R, Danny Ructor, Executive Director American Loggers Council, Hughes Simpson, Texas Forest Service, James Oren Metts, Jr., Bob Currie, Texas Logging Council Coordinator)

Subtask 4.8 Install a cooperative billboard promoting forestry BMPs in Cypress Creek Basin.

- **BMP billboard created and installed on Hwy 59 north of Jefferson targeting both landowners and the general public (approximately 7,300 vehicles pass by daily). Sponsored by the Sustainable Forestry Initiative℠ (SFI) Committee of the Texas Forestry Association.**

This billboard is passed by approximately 7,300 vehicles each day.

The format of the Jefferson billboard was changed to look like this.

Deliverables

* Twelve newsletters to state resource professionals

  See Appendix D.

* Twelve newsletters to forest landowners in Cypress Creek Basin

  See Appendix D.

* Photos and log of display booth exhibits

  See Subtask 4.5.

* News articles/stories

  See Appendix D.

* Develop and guide major urban associations for absentee forest landowners

  Lost Pines Landowner Association was formed after landowner seminar and Tree Farm Tour in September 1999. BMP Project staff helped organize and conduct meeting. Gave BMP presentation. Attendees were from Bastrop/Austin area.

Helped to organize and assisted in two forestry tours in East Texas for Dallas/Fort Worth Metroplex landowners group.
See Subtask 4.1.

* Provide one-on-one technical assistance to 500 landowners

Technical assistance provided to 500+ landowners.

PROGRAM TASK 5: Forestry Water Quality Management Plans

Objective: The goal of this task is to increase the awareness of and the enrollment into forestry water quality management plans (WQMPs) by forest landowners.

Subtask 5.1 Increase awareness of forest landowners in Cypress Creek Basin of forestry WQMPs.

- **Developed FWQMP slide presentation.**
- **Published newspaper and newsletter articles regarding WQMPs in East Texas.**
- **In cooperation with the TSSWCB, forestry WQMP handouts were developed.**
- **Planned and conducted WQMP training for TFS foresters.**
- **Attended a Panola Co. Soil and Water Conservation District meeting to promote forestry WQMPs and asked to partner on any plans where landowners have forested property.**
- **Gave WQMP presentation to Woodville Lions Club.**
- **See Appendix E.**

Subtask 5.2 With local SWCDs, enroll forest landowners and forest acreage in forestry WQMPs.

- **10 forest landowners, owning a total of 10,019 acres, were enrolled in forest water quality management plans.**
- **Formed a task force of 5 TFS foresters to meet with their respective SWCD Boards and NRCS officials about targeting landowners with WQMPs.**
- **Worked directly with SWCDs and consulting foresters to write forestry WQMPs.**
- **Project Forester met with with Marion-Cass (Marion and Cass Co.), Sulphur-Cypress (Franklin, Titus, Morris, and Camp Co.), Rusk (Rusk Co.), Panola (Panola Co.), Upper Neches (Angelina Co.), Coastal (Jefferson Co.), Longleaf (Tyler Co.) and Pineywoods (San Augustine and Sabine Co.) SWCDs to promote forestry WQMPs.**
- **See Appendix E.**

Deliverables

* Enroll 50 landowner or 10,000 acres into forestry WQMPs

See Appendix E.

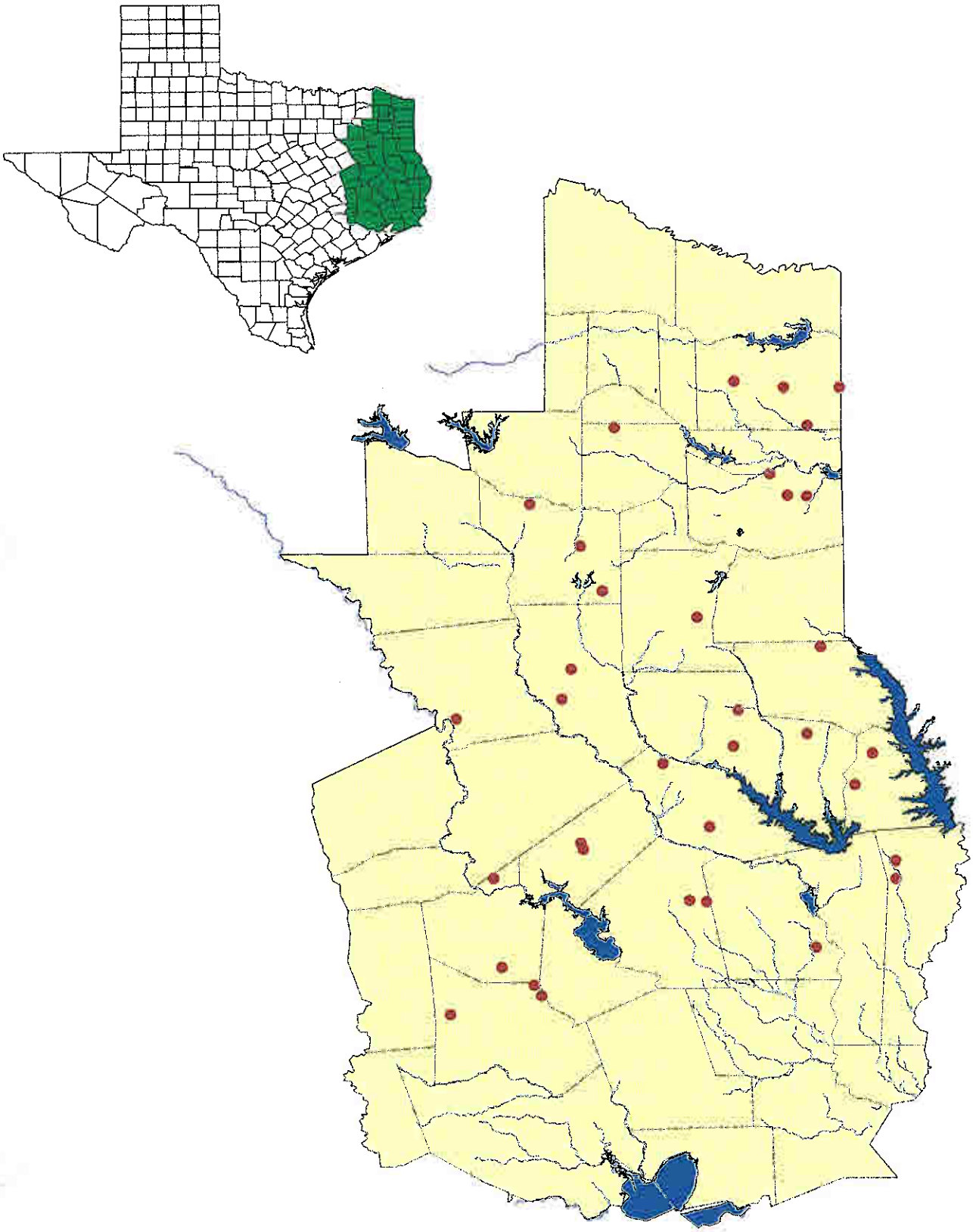
* Attract media attention with sign-ups by major landowners

See Appendix E.

Remediation Sites

Site ID	Lattitude	Longitude	County	Major	Minor	Description
1	31.9494	-94.1344	Shelby	3	1	Major: Install waterbars, SMZ, Remove stream crossing. Minor: Remove trash
2	32.6939	-94.3437	Harrison	1	2	Major: Install waterbars. Minor: Hunter BMP training and revegetate skid trails
3	32.5950	-94.1866	Harrison		2	Minor: Hunters will blade and revegetate road
4	33.0609	-94.0435	Cass		2	Minor: Extend width of SMZ and fix waterbars not installed properly
5	33.0620	-94.2823	Cass	1	2	Major: Rework the road. Minor: Install waterbars and revegetate
6	32.3885	-95.1588	Smith	1	3	Major: Establish SMZ. Minor: Reshape road, install waterbars, and revegetate
7	33.0889	-94.4938	Cass	1	1	Major: Replace permanent stream crossing. Minor: Road repair
8	32.0782	-94.6613	Rusk	1	4	Major: Establish SMZ. Minor: Road repairs, install waterbars, and revegetate
9	32.8951	-95.0085	Upshur		1	Minor: Road repairs
10	32.5677	-95.3743	Smith	1	3	Major: Establish SMZ. Minor: Road repairs, install waterbars roads and trails
11	32.1949	-95.0671	Smith	3	1	Major: Remove two temporary crossings, establish SMZ. Minor: Road repairs
12	31.8605	-95.2022	Cherokee		1	Minor: Road repairs
13	32.8993	-94.1824	Cass		1	Minor: Road repairs
14	32.6000	-94.2701	Harrison		3	Minor: Road repairs, revegetate, repair permanent crossing
15	30.9652	-95.5450	Walker	1	1	Major: Replace culvert. Minor: Install waterbars on firebreaks
16	30.5840	-95.5146	Walker	1	2	Major: Remove temporary crossing. Minor: install waterbars and revegetate
17	31.7333	-95.2444	Cherokee	3		Major: Install rolling dips, wing ditches, and repair permanent stream crossing
18	31.0868	-95.1606	Trinity	1	1	Major: Re-install culvert that blew out. Minor: Road repairs
19	31.6506	-95.6960	Anderson		2	Minor: Install waterbars and revegetate
20	30.9521	-93.8207	Newton	1		Major: Redirected wing ditch so it didn't dump into stream
21	31.4518	-94.8147	Angelina	1		Major: Establish SMZ
22	31.0299	-93.8233	Newton		1	Minor: Re-install waterbars
23	31.5244	-94.5128	Nacogdoches	2	1	Major: Install low water crossing, rework road. Minor: Install waterbars
24	31.6810	-94.4905	Nacogdoches	2	1	Major: Establish SMZ, Rework road. Minor: Install waterbars
25	31.5763	-94.1963	San Augustine		1	Minor: Install waterbars on firelanes
26	30.6611	-94.1681	Tyler		1	Minor: Remove logging debris from stream channel
27	30.8585	-94.6351	Polk		1	Minor: Extend width of SMZ
28	31.1140	-95.1699	Trinity		2	Minor: Extend width of SMZ, Fix erosion problems on road
29	30.8663	-94.7077	Polk		1	Minor: Extend width of SMZ
30	31.1808	-94.6181	Angelina		1	Minor: Remove trash
31	31.3567	-93.9930	Sabine	1	1	Major: Clean up oil spill. Minor: Remove trash
32	30.3826	-95.7362	Montgomery		1	Minor: Road repairs
33	30.4610	-95.3459	Montgomery		1	Minor: Road repairs
34	30.5066	-95.3783	Montgomery		2	Minor: Road repairs and install waterbars
35	31.4925	-93.9180	Sabine		2	Minor: Road repairs and install waterbars
Total				**25**	**50**	

Remediation Sites



Voluntary Compliance with Forestry Best Management Practices in East Texas

Results from Round 5 of BMP Compliance Monitoring 2000-2002

by

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TEXAS FOREST SERVICE
Forest Resource Development
Best Management Practices Project

PREPARED IN COOPERATION WITH THE
TEXAS STATE SOIL AND WATER CONSERVATION BOARD
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EXECUTIVE SUMMARY

A Best Management Practices (BMP) monitoring program evaluated the level of compliance with voluntary forestry BMPs. A total of 150 sites on which silvicultural activities occurred were evaluated. These sites are believed to be a representative sample of the forestry activities that occurred in East Texas between August 16, 2000 and April 23, 2002.

Overall BMP compliance on the sites monitored was 91.5%. In general, compliance was highest on sites under public ownership or forest industry. National and State Forest sites had an overall compliance of 98.4%, while industry sites had a 96.1% compliance rating. Nonindustrial private forest (NIPF) lands scored 86.4% overall.

Compliance with BMPs was statistically significantly higher when:

- the landowner was familiar with BMPs
- the logging contractor had attended formal BMP training
- a professional forester was involved
- BMPs were included in the timber sale contract

Compliance was generally lowest on sites:

- owned by nonindustrial private forest (NIPF) landowners
- when a professional forester was not involved
- when BMPs were not included in the timber sale contract

Major deficiencies noted during the evaluations were:

- SMZs not adequately wide
- high amount of significant risks noted

Major improvements from previous rounds:

- more overall BMP implementation on stream crossings and roads
- increase in BMP compliance across all ownerships

In previous rounds (1, 2, and 3) of monitoring, tracts were graded for compliance using a "Pass or Fail" method. For Round 4, a new system was developed that uses percentages to denote compliance. This same system was used for Round 5, and shows an increase in compliance in all categories.

BACKGROUND AND OBJECTIVES

The Clean Water Act (CWA), as reauthorized in 1987, called for states to establish a program for development and implementation of Best Management Practices to reduce nonpoint source (NPS) water pollution. The Act also required states to develop methods for determining "BMP effectiveness," including a measure of BMP compliance.

The Texas Silvicultural Nonpoint Source Pollution Project, funded by a FY99 CWA Section 319(h) grant from the Environmental Protection Agency (EPA) through the Texas State Soil and Water Conservation Board (TSSWCB), requires that a monitoring program be conducted to document the level of voluntary implementation of BMPs and effectiveness of BMPs in reducing NPS pollution from silvicultural activities. Objectives of the monitoring program are to:

1) Measure the degree of compliance with BMP guidelines by forest landowners, silvicultural contractors, forest industry, and government agencies

2) Evaluate the effectiveness of BMPs as applied in the field and identify any weaknesses in the BMP guidelines.

This report documents the findings of the BMP compliance monitoring for 150 sites monitored between August 16, 2000 and April 23, 2002. This data represents Round 5 of BMP compliance monitoring conducted by the Texas Forest Service. Please refer to the Texas Forest Service October, 1992 publication *Voluntary Compliance with Forestry Best Management Practices in East Texas* for Round 1; the Texas Forest Service March, 1996 publication of the same title for Round 2 of compliance monitoring results; the Texas Forest Service April, 1998 publication, also same name, for Round 3, and the Texas Forest Service September, 2000 publication, also same name, for Round 4.

DISTRIBUTION AND SELECTION OF COMPLIANCE MONITORING SITES

To get a valid estimate of overall compliance with Forestry Best Management Practices in East Texas, compliance monitoring sites were distributed regionally within East Texas and among forestland ownership categories. Sites were believed to be representative of the distribution of all silvicultural activities across East Texas. The distribution of monitoring sites was based on estimated annual timber harvest for each county based on data from the annual Texas Forest Service Publication, *Texas Forest Resource Harvest Trends*. See Table 1.

Table 1. Distribution of Compliance Monitoring Sites by County.

County	1999 Average Annual Harvest (cubic feet)	Completed # Sites
Anderson	11,462,930	2
Angelina	46,197,482	10
Bowie-Red River	23,223,116	5
Camp-Morris	4,926,419	1
Cass	35,715,294	8
Cherokee	21,950,935	5
Franklin-Titus	2,399,136	1
Gregg	5,490,289	1
Hardin	24,581,870	5
Harris	7,162,826	2
Harrison	23,544,358	5
Houston	10,035,937	2
Jasper	38,925,816	8
Jefferson	2,363,163	1
Liberty	33,340,924	7
Marion	20,289,409	4
Montgomery	35,257,919	8
Nacogdoches	31,147,080	7
Newton	37,334,271	8
Orange	6,487,753	1
Panola	25,052,453	5
Polk	39,674,199	9
Rusk	18,915,408	4
Sabine	21,704,335	5
San Augustine	20,805,993	5
San Jacinto	11,261,443	2
Shelby	26,707,571	6
Smith	16,213,489	4
Trinity	12,978,433	3
Tyler	38,276,738	8
Upshur	10,317,035	2
Walker	22,802,616	5
Wood	4,063,820	1
Total	**690,612,459**	**150**

QUALITY CONTROL

To eliminate bias, compliance monitoring sites were selected in a random manner using several methods, including aerial detection and information from Texas Forest

Service (TFS) personnel, to identify sites. All monitoring evaluations were conducted by one or a combination of the two trained foresters assigned to the TFS BMP Project. Using only BMP Project employees as inspectors provided greater accuracy and quality control. At the beginning of the monitoring project, as well as periodically throughout the project, both BMP Project foresters jointly evaluated tracts to maintain and improve consistency and fairness. The TFS BMP Project collected monitoring data in accordance with a Quality Assurance Project Plan, approved by TSSWCB and EPA.

MONITORING CHECKLISTS – OLD vs. NEW

After six years and three rounds of monitoring with a scoring system that applied a "Pass or Fail" to each tract, a new form that is more objective in nature, was implemented for Round 4 and continued in Round 5. This was an attempt to coordinate with other southern states' monitoring programs. Although there is a section for the evaluator to record a subjective score, this new form no longer grades a tract as No Effort, Poor, Fair, Good, or Excellent. Instead, each tract will receive a number, or percent, which demonstrates voluntary compliance. In other words, instead of a tract receiving a "Good" it might receive an 89%. This removes the "Pass or Fail" system. It is important to note that this form has been extensively field tested for consistency and accuracy of representing true BMP compliance. Once the field data is collected, it is entered into an Access database for storage and retrieval. This data can easily be imported into ArcView GIS for further analysis and geographical representation. Copies of new form are contained in the Appendix.

Previously, "effort" at installing BMPs was acknowledged. The subjective nature of the old form allowed for a tract that had some improperly installed BMPs to receive credit in some cases. The new form objectively notes whether or not, for example, waterbars were installed properly. No credit was given where the vast majority of BMPs were not effectively installed.

A new category of "significant risk" appears on the new form. A determination was made for each BMP or lack of a BMP to see if a significant risk to water quality existed. A significant risk was noted where it was determined that it was imminent that sediment would be delivered to a permanent water body following a normal rainfall.

For simplification each question was worded so that a positive answer was recorded with a "Yes" while a negative answer, indicating a departure from BMP recommendations, was answered "No." This allowed readers to quickly determine any problem areas identified during an inspection.

INSPECTION CONTACTS

Landowners were contacted prior to the inspection of the site so that permission for entry onto the property could be obtained. During this initial contact, the forester explained the program and invited the landowner or his/her representative to join the BMP forester on site during the evaluation. Sites were not inspected if the landowner

denied access. In nearly all cases on forest industry property, an industry forester accompanied the BMP forester.

Landowners, logging contractors, and timber buyers (where applicable and identifiable) were provided with a copy of the completed checklist, along with a cover letter explaining the BMP Project and interpreting the form. Recommendations for remediation, if applicable, were made.

RESULTS

Between August 16, 2000 and April 23, 2002, TFS BMP foresters evaluated BMP compliance on 150 sites, totaling 14,983 acres, throughout East Texas. These 150 tracts are geographically represented by ownership category in Figure 1. Tabulated results by question on the BMP compliance monitoring checklist are located in the Appendix.

SITE CHARACTERISTICS

The 150 monitoring sites were distributed both geographically and by ownership, as shown in Figure 1. Seventy-four (49%) of the 150 sites were owned by nonindustrial private forest (NIPF) landowners. Sixty six sites (44%) were owned by forest industry. Ten sites (7%) were on public ownership (U.S. Forest Service and State lands).

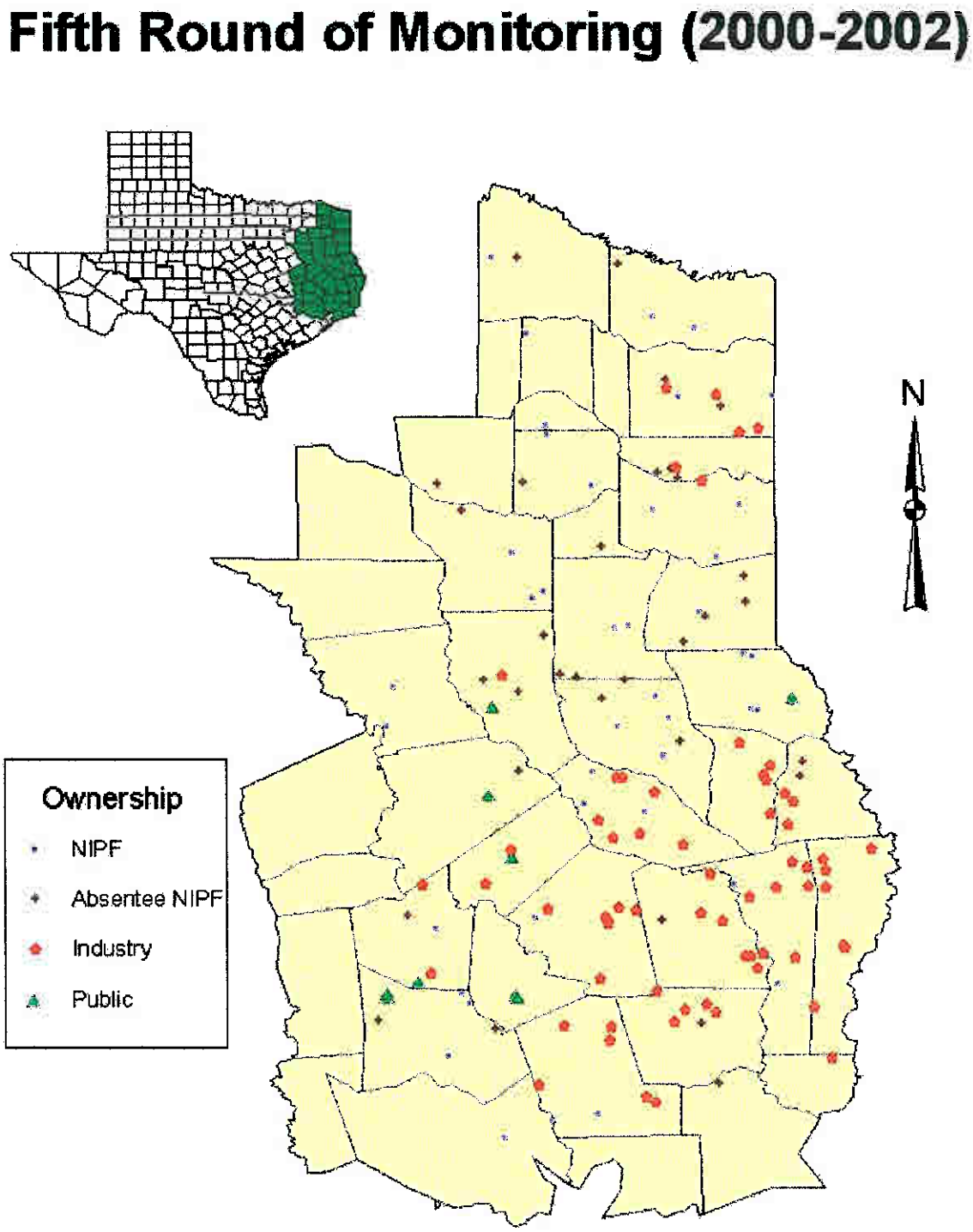
The majority of sites (59%) were monitored after a regeneration harvest, including 78 clearcuts and 10 partial harvests (such as diameter cuts, seedtree cuts, or selection harvests). Forty thinning, 10 site preparation (only), and 12 planting operations were evaluated. In 44 cases, the site preparation evaluation was included in elements of the preceding timber harvest operation or succeeding planting operation.

Professional foresters were involved in planning and/or implementing the silvicultural operation on 123 (82%) of the sites. On 66 sites, the forester was employed by forest industry. Private consultants were involved in 47 of the sites, while U.S. Forest Service and Texas Forest Service foresters were involved on 10 sites.

Terrain classification and soil erodability were recorded from the Natural Resources Conservation Service (NRCS) soil survey, if applicable, or estimated by the forester in the field. Forty eight sites (32%) were on flat terrain. Ninety nine sites (66%) were on hilly terrain and three (2%) were on steep terrain. Forty seven sites (31%) were on soils with low erodability, 66 sites (44%) on medium erodability soils, and 37 (25%) were on high erodability soils.

Of the 150 sites, 119 had either a perennial (54) or intermittent (94) stream or both perennial and intermittent (29). A permanent water body was found within 1600 feet of 68 sites (45%), while 82 sites (55%) did not have permanent water within 1600 feet.

Figure 1. Site locations by ownership category.



PERMANENT ROADS

Permanent roads were evaluated for compliance with BMPs when they were used in the forestry operation. Permanent roads in the forestry context are generally graded dirt roads that are used for year-round access. County roads were not included in the monitoring, as they are not under the management control of the landowner. Permanent roads were applicable on 129 of the 150 sites. The percent compliance for permanent roads was 94% and two significant risks were noted. The lowest compliance was for not having roads well drained with appropriate structures (78%). The area with the highest level of compliance was for roads respecting sensitive areas and meeting grade specifications (99% for both categories). See Table 2. Figure 2 breaks these numbers of sites down into ownership type.

Table 2. Compliance with Specific BMPs Relating to Permanent Roads.

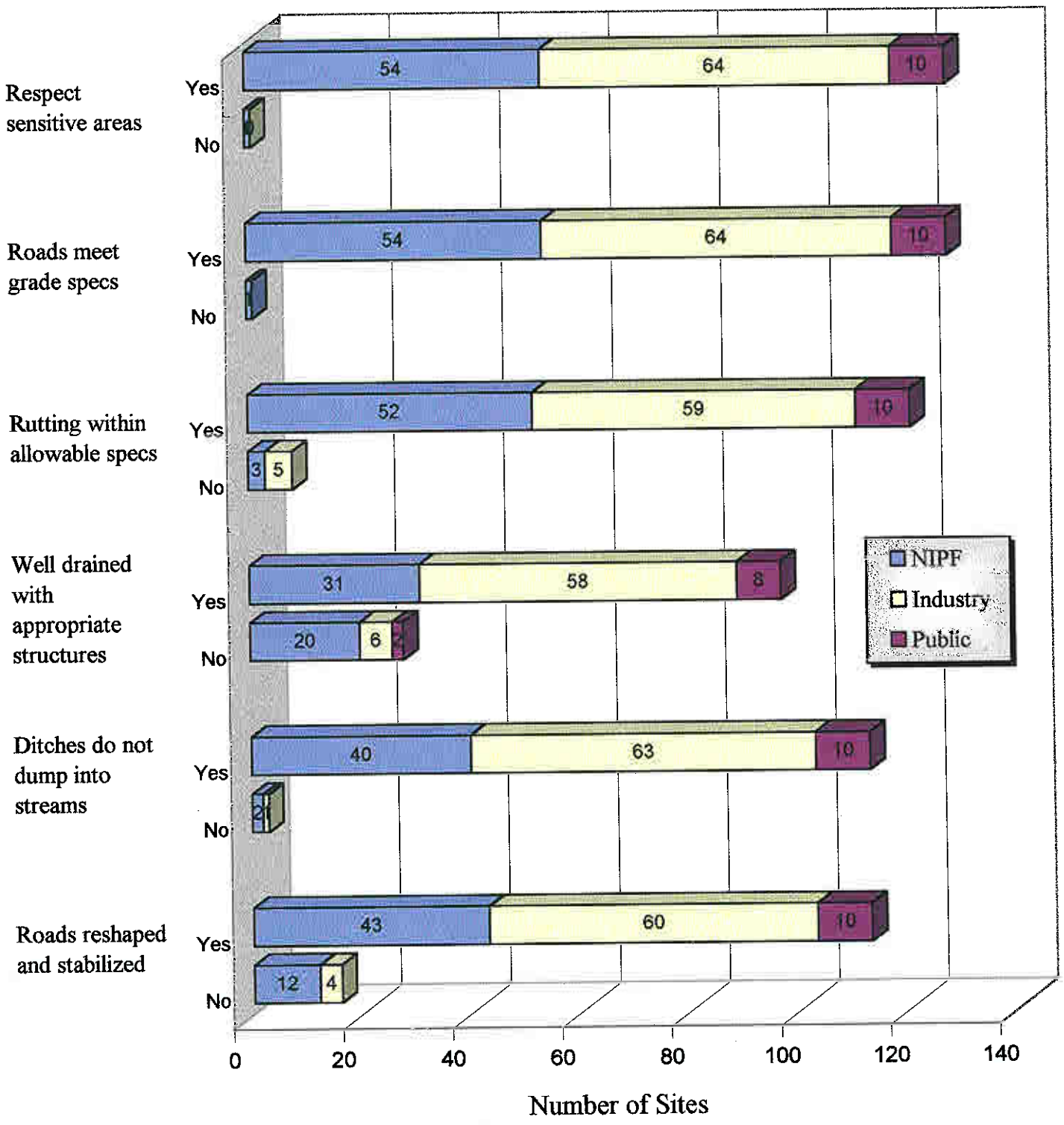
BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Respect sensitive areas	128	1	21	99	0
Roads meet grade specifications	128	1	21	99	0
Rutting within allowable specs	121	8	21	94	0
Well drained with appropriate structures	97	28	25	78	2
Ditches do not dump into streams	113	3	34	97	0
Roads reshaped and stabilized	113	16	21	88	0

It is important to note that non-use of a specific BMP does not necessarily imply lack of compliance with BMPs. Often, there are many alternative methods that could be applied in a given instance. The value of the evaluation of whether specific BMPs were used is its indication of whether efforts were made to use at least one of the more commonly recommended BMPs.

SKID TRAILS AND TEMPORARY ROADS

Skid trails and temporary roads were evaluated on 94 of the 150 monitoring sites. Skid trails are routes through the logging area by which logs are skidded or dragged to a permanent road or central loading point called a "set" or "landing." Temporary roads are not designed to carry traffic long-term and are usually retired, closed, or reforested after the harvest activity. The percent compliance for temporary roads was 86% and a total of three significant risks were noted. The lowest compliance category was for roads not

Figure 2. Permanent roads by numbers of sites compliant/not compliant by ownership type.



well drained with appropriate water control structures to effectively reduce erosion (73%). The area with the highest compliance (98%) was for having slopes less than 15%. See Table 3 and Figure 3.

Table 3. Compliance with Specific BMPs Relating to Skid Trails and Temporary Roads.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Slopes less than 15%	92	2	56	98	1
Respect sensitive areas	85	9	56	90	0
Roads well drained with appropriate structures	63	23	64	73	2
Roads stabilized	75	19	56	80	0
Rutting within allowable specifications	83	11	56	88	0

STREAM CROSSINGS

Stream crossings were evaluated on 72 sites. Thirty sites had crossings on permanent roads only, 30 had them on temporary roads only, and 12 were on both permanent and temporary roads. The percent compliance for stream crossings was 84.9% and a total of twelve significant risks were noted. Stream crossings on permanent roads received the lowest compliance for not being stabilized (83%). The highest compliance, 97%, was for ditches not dumping into streams. Crossings on temporary roads scored the lowest for not being restored and stabilized (71%). However, 95% of the crossings were minimized on permanent roads and 93% were installed at right angles on temporary roads. See Table 4 and Figure 4.

Figure 3. Skid trails/temporary roads by numbers of sites compliant/not compliant by ownership type.

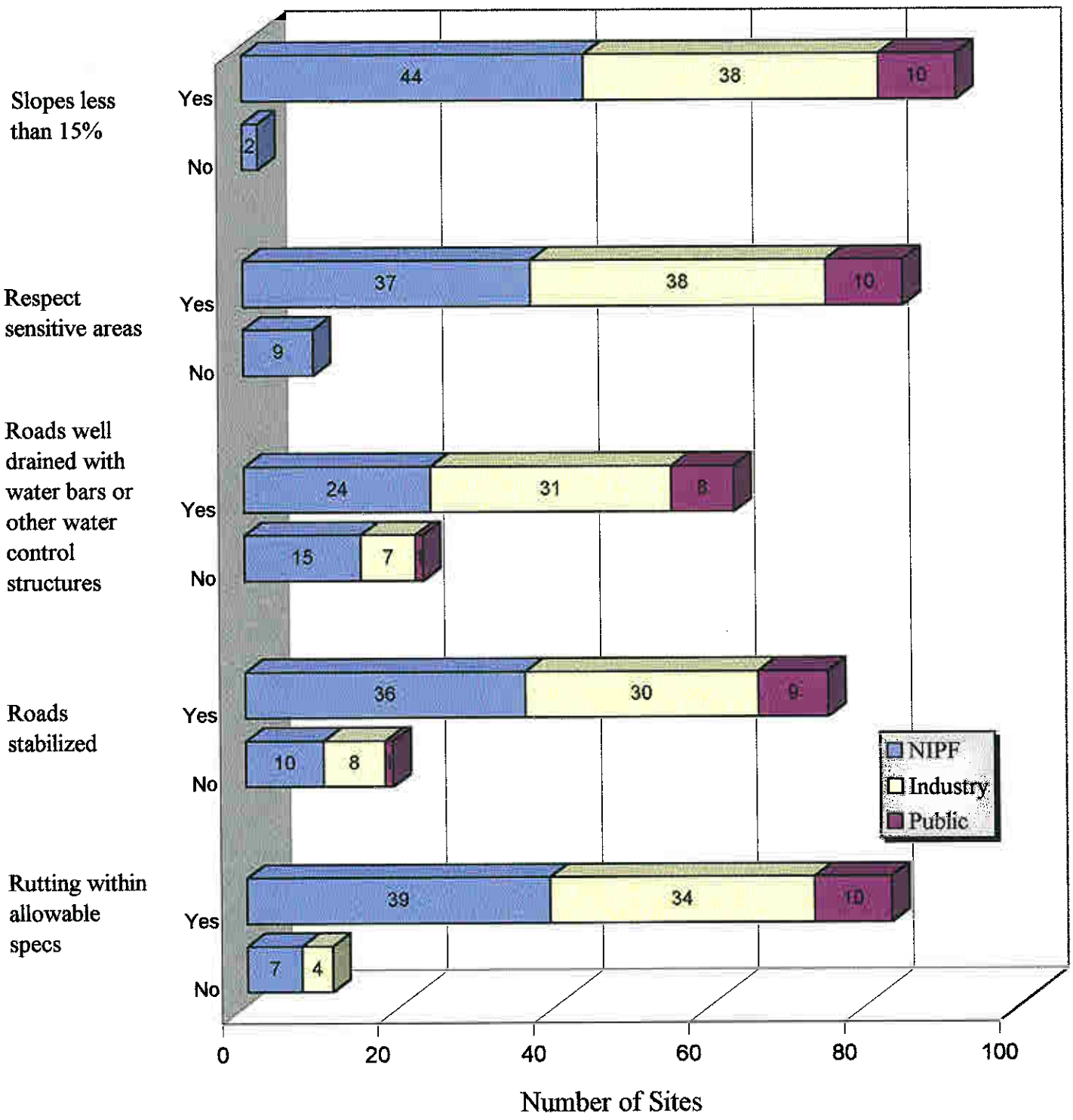


Figure 4. Stream crossings by numbers of sites compliant/not compliant by ownership type.

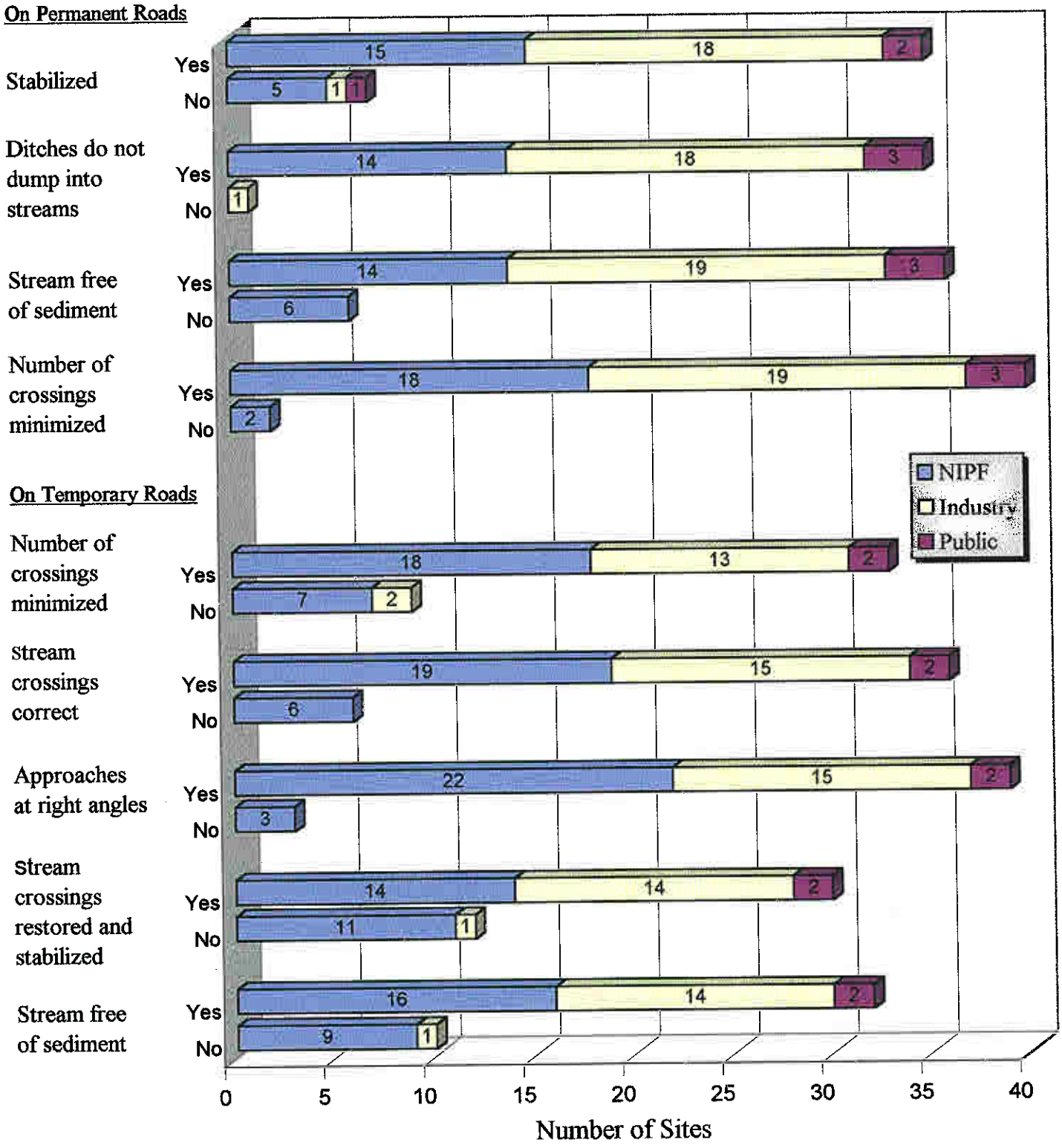


Table 4. Compliance with Specific BMPs Relating to Stream Crossings.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Permanent Roads					
Stabilized	35	7	108	83	3
Ditches do not dump into streams	35	1	114	97	0
Stream free of sediment	36	6	108	86	1
Number of crossings minimized	40	2	108	95	0
Temporary Roads					
Number of crossings minimized	33	9	108	79	2
Stream crossings correct	36	6	108	86	0
Approaches at right angles	39	3	108	93	0
Stream crossings restored and stabilized	30	12	108	71	4
Stream free of sediment	32	10	108	76	2

STREAMSIDE MANAGEMENT ZONES

Streamside management zones (SMZs) are recommended on all perennial and intermittent streams, lakes, ponds, and reservoirs. All sites with either perennial or intermittent streams were evaluated for the presence and adequacy of SMZs. Streams were present on 119 of the 150 sites. Of these 81 sites, 25 had perennial streams only, 65 had intermittent streams only, and 29 had both perennial and intermittent streams. Overall compliance on SMZs was 88% and eleven significant risks were noted. It is important the BMP compliance of having a SMZ on a permanent stream was 96%. The lowest compliance was for SMZs not being adequately wide (70%). See Table 5 and Figure 5.

Figure 5. Streamside management zones by numbers of sites compliant/not compliant by ownership type.

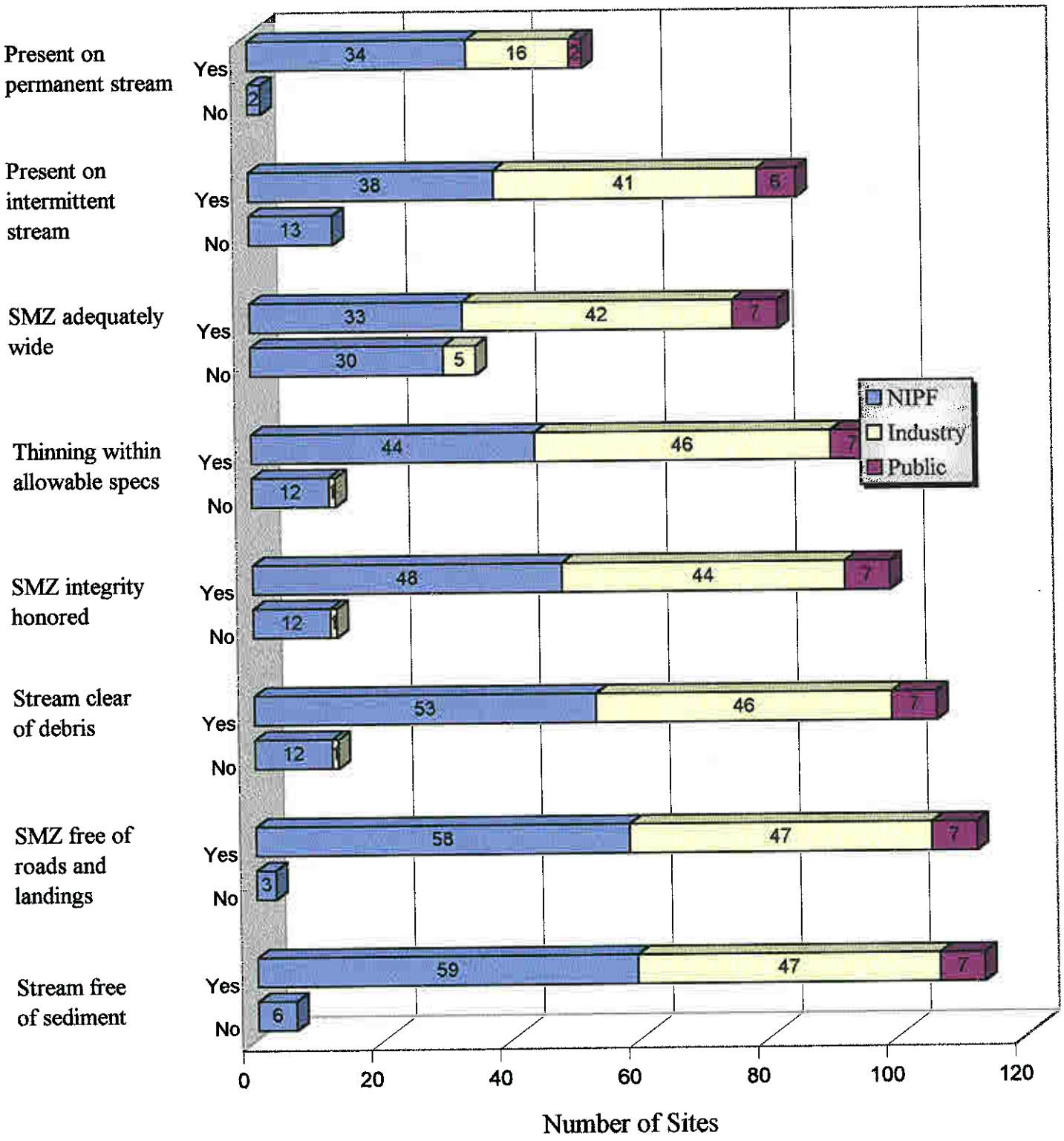


Table 5. Compliance with Specific BMPs Relating to SMZs.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Present on perennial stream	52	2	96	96	1
Present on intermittent stream	85	13	52	87	6
Adequately wide	82	35	33	70	0
Thinning within allowable specs	97	13	40	88	0
Integrity honored	99	13	38	88	0
Stream clear of debris	106	13	31	89	4
Free of roads and landings	112	3	35	97	0
Stream free of sediment	113	6	31	95	0

SITE PREPARATION

Fifty four sites were evaluated for compliance with site preparation BMPs. A variety of site preparation techniques were evaluated, including 40 with some combination of shearing, piling, subsoiling, bedding, and/or burning. Eleven sites involved application of herbicide only. The compliance for site preparation was 90% and no significant risks were noted. Four of the nine sites that were machine planted did not do so on the contour, resulting in a compliance of 69%. See Table 6 and Figure 6.

Table 6. Compliance with Specific BMPs Relating to Site Preparation.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Respect sensitive areas	50	4	96	93	0
No soil movement on site	53	1	96	98	0
Firebreak erosion controlled	29	4	117	88	0
SMZ integrity honored	46	2	102	96	0
Windrows on contour/free of soil	18	4	128	82	0

No chemicals off site	38	2	110	95	0
Machine planting on contour	9	4	137	69	0
Stream free of sediment	50	0	100	100	0

LANDINGS

Landings, sometimes called sets, are areas where logs are gathered, delimbed, bucked, and loaded onto log trucks. Landings were evaluated on 102 sites with an overall compliance of 98%. Several areas were found to be in full compliance (100%), including respecting sensitive areas, being located outside of the SMZ, and minimizing their number and size. There were no significant risks noted on landings. See Table 7 and Figure 7.

Table 7. Compliance with Specific BMPs Relating to Landings.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Location free of oil/trash	95	8	47	92	0
Located outside of SMZ	97	0	53	100	0
Well-drained location	101	1	48	99	0
Number and size minimized	102	0	48	100	0
Respect sensitive areas	102	0	48	100	0
Restored/stabilized	97	5	48	95	0

Figure 6. Site preparation by numbers of sites compliant/not compliant by ownership type.

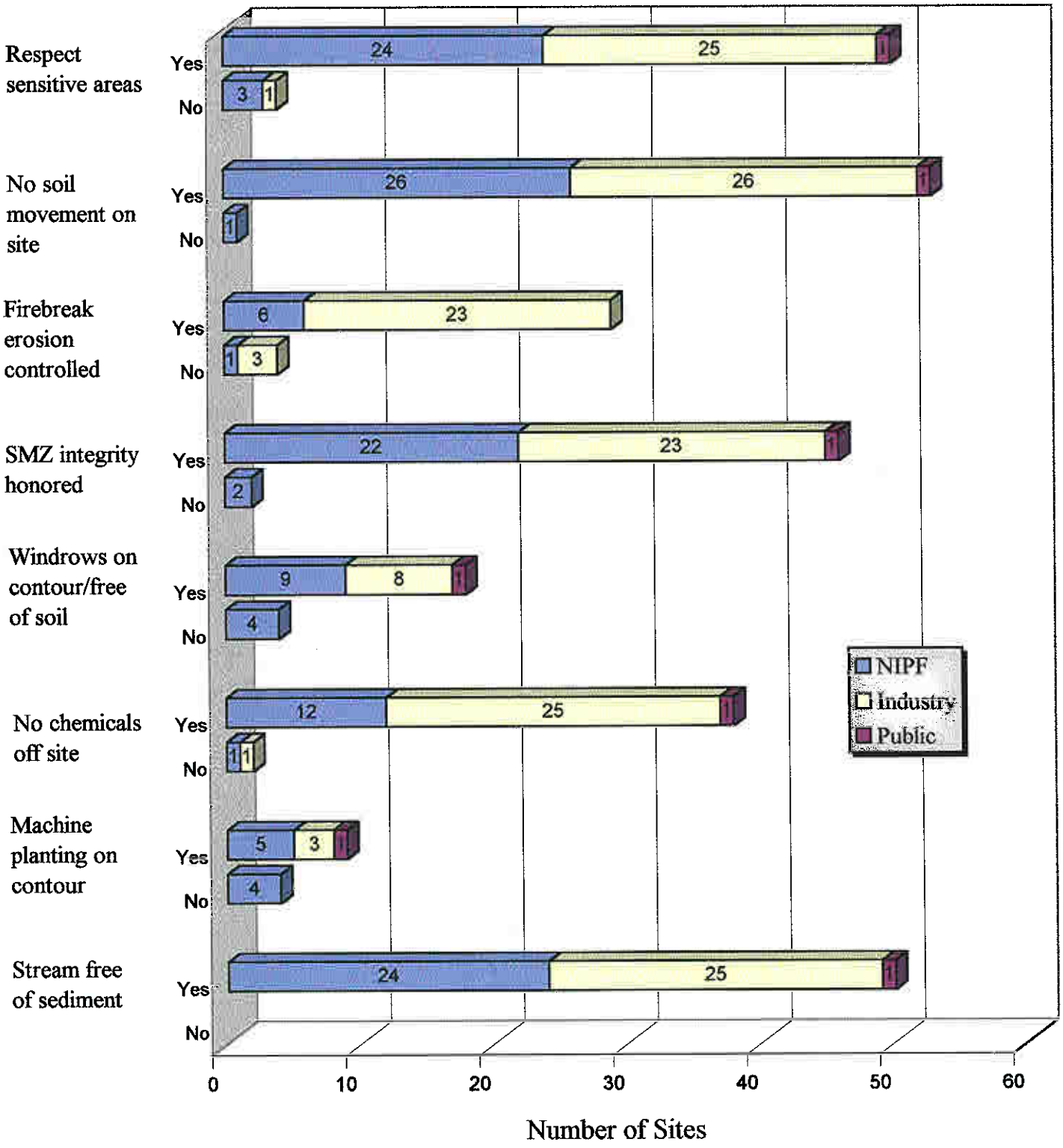
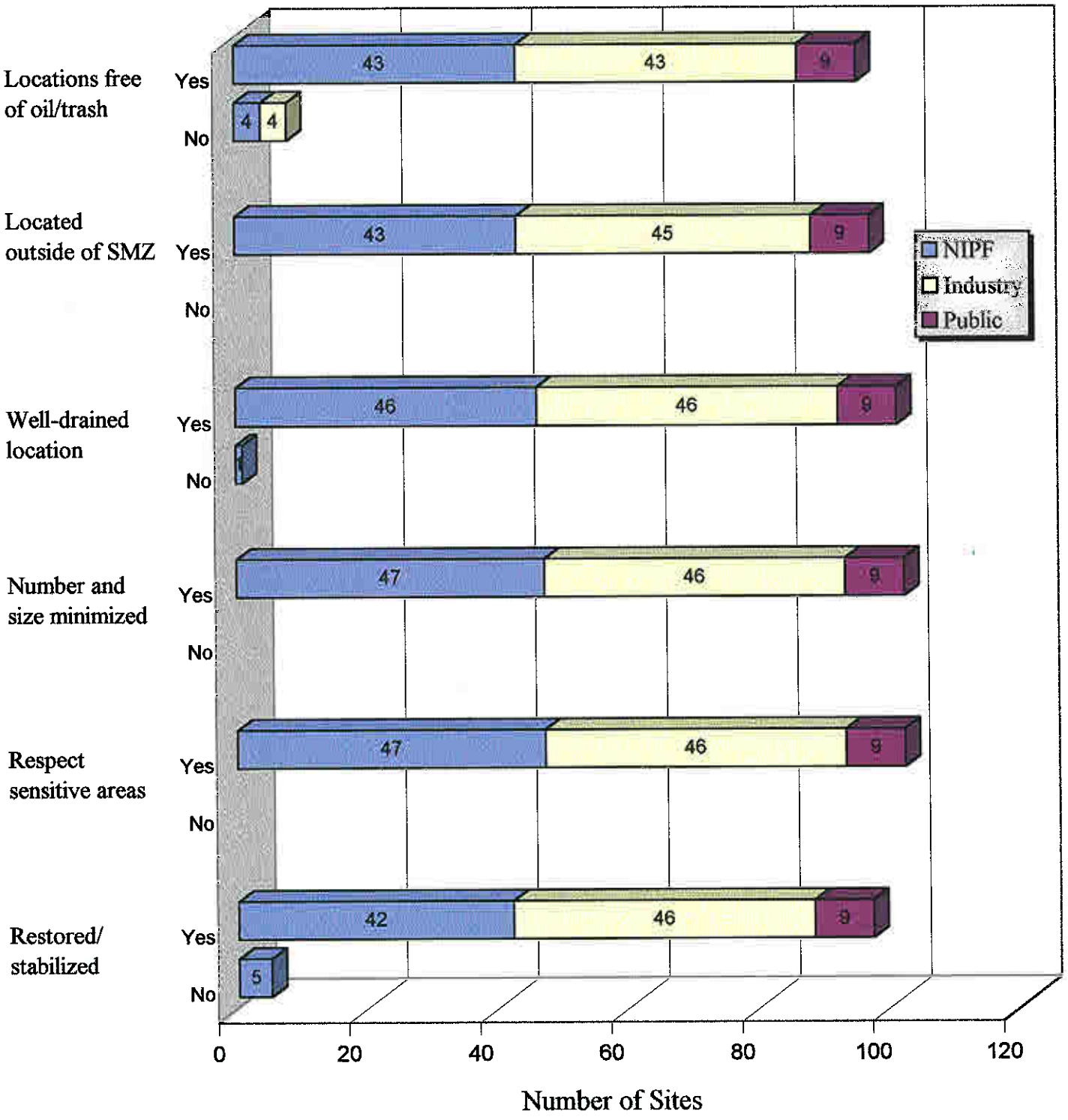


Figure 7. Landings by numbers of sites compliant/not compliant by ownership type.



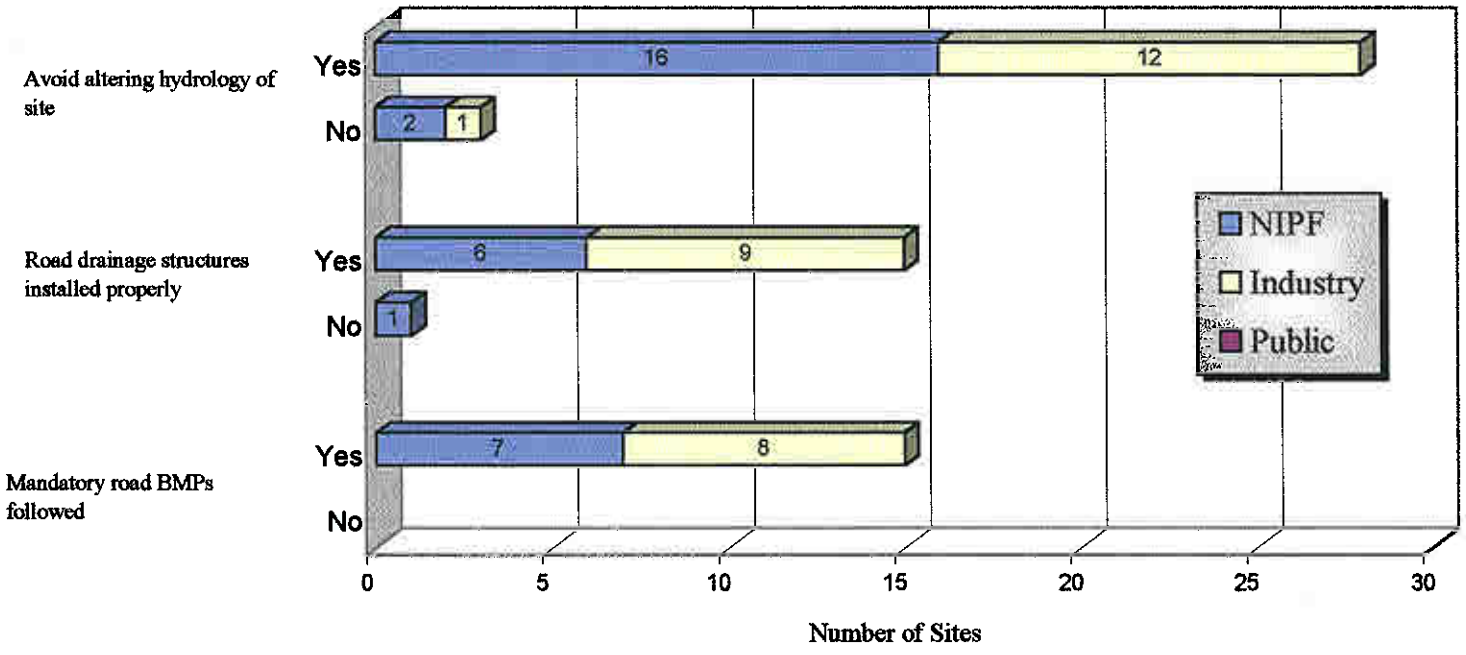
WETLANDS

Fifteen sites had wetland areas. These sites had an overall compliance of 94%. No significant risks were noted and all mandatory road BMPs for wetlands were followed. See Table 8 and Figure 8.

Table 8. Compliance with Specific BMPs Relating to Wetlands.

BMP	Yes	No	N/A	% Compliance	Number of Significant Risks
Avoid altering hydrology of site	28	3	119	90	0
Road drainage structures installed properly	15	1	134	94	0
Mandatory road BMPs followed	15	0	135	100	0

Figure 8. Wetlands by numbers of sites compliant/not compliant by ownership type.



OVERALL COMPLIANCE WITH BMPs

To illustrate the spread of the compliance scores, Figures 9 and 10 separate the results into six categories: 0-49%, 50-59%, 60-69%, 70-79%, 80-89%, 90-100%. Figure 9 geographically illustrates compliance across all ownership categories. Figure 10 provides the number of tracts across all ownership categories receiving the respective level of compliance.

COMPLIANCE BY SITE CHARACTERISTICS

Ownership

BMP compliance varied by ownership category. The public ownership category (U.S. Forest Service and State forestlands) fared best, with 98.4% for the ten tracts with no significant risks noted.

The 66 sites owned by forest industry had an overall BMP compliance of 96.1% and had only four significant risks.

Nonindustrial private forest (NIPF) landowners had a compliance rating of 86.4%, the lowest level of the three ownership types, and had twenty four significant risks.

Type of Activity

Five types of silvicultural activities were monitored: regeneration harvests, partial regeneration cuts, thinning, site preparation, and planting. Ten sites were evaluated for site preparation only, although site preparation was evaluated along with a regeneration harvest or planting 44 times. See Table 9.

Table 9. Overall Compliance with BMPs by Type of Operation.

Type of Operation	BMP Compliance
Regeneration harvest (clearcut)	88%
Regeneration harvest (partial cut)	82%
Thinning	97%
Site preparation (only)	95%
Planting	96%

Figure 9: Overall Compliance scores across all ownerships and monitoring criteria.

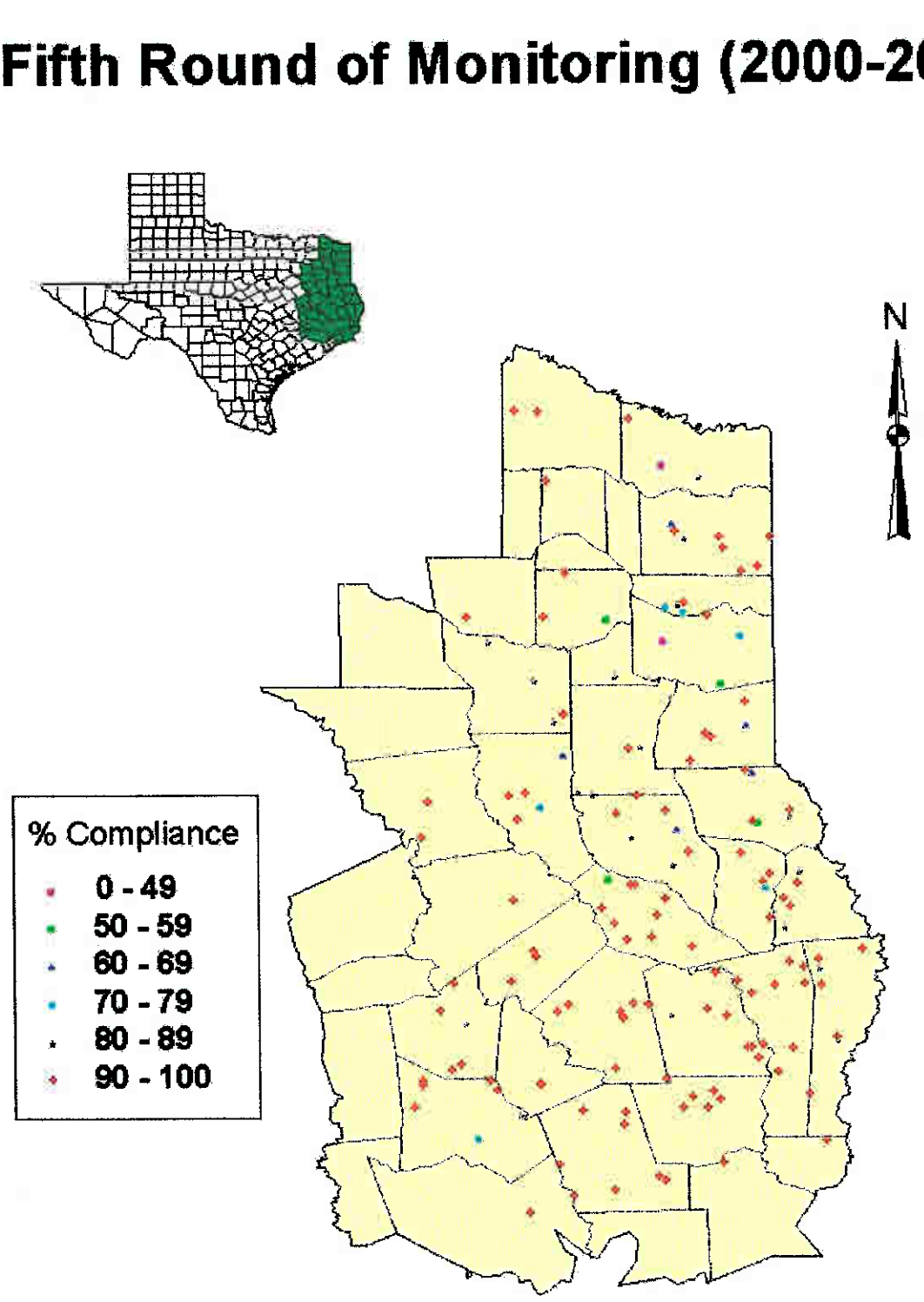
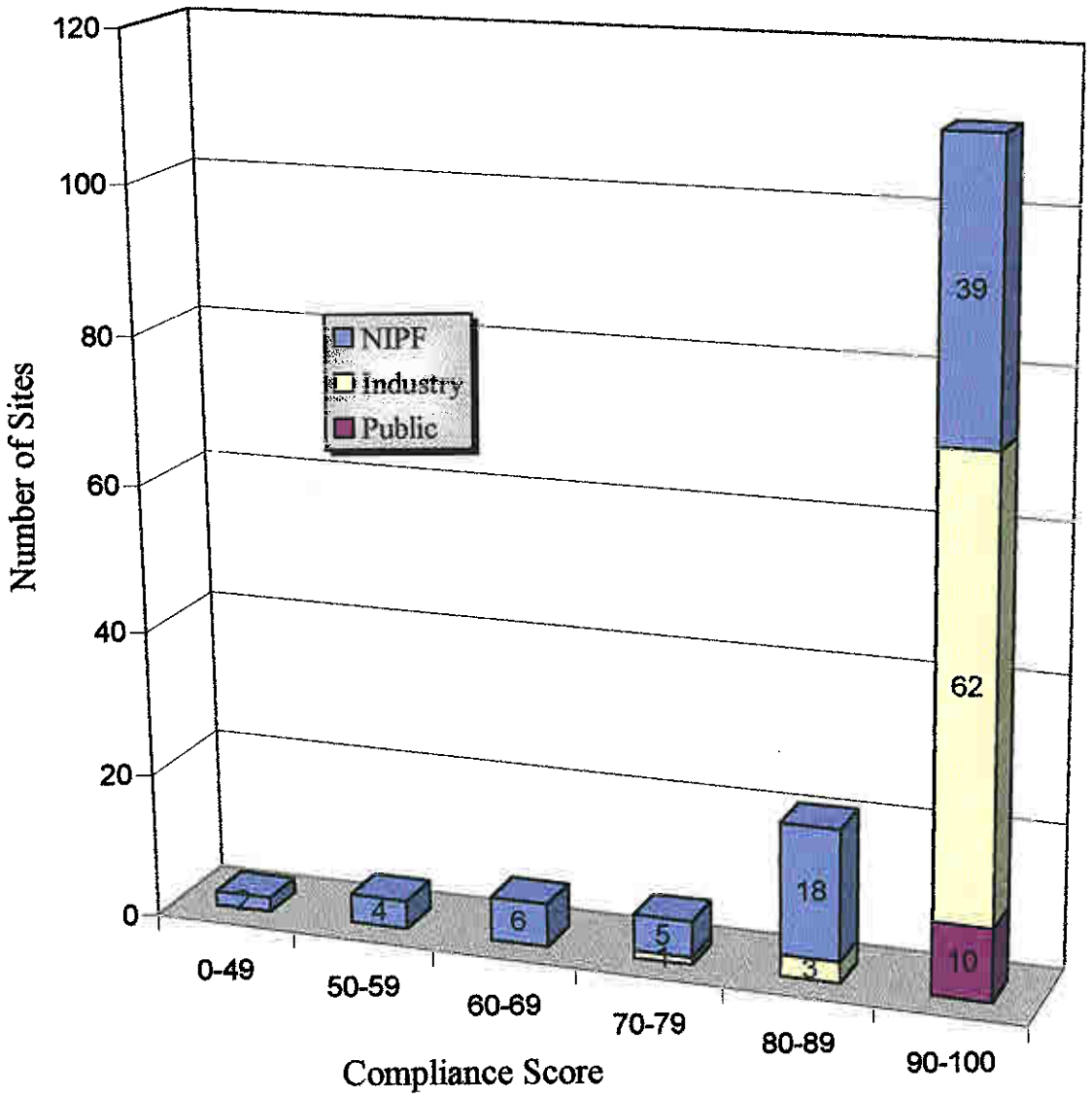


Figure 10. Overall compliance scores by number of sites and ownership type.



Terrain

Monitoring sites were classified by BMP foresters as Flat, Hilly, or Steep. BMP compliance on a total of 48 flat sites was 96.1% with no significant risks; on the majority, or 99 hilly sites, 89% with 28 significant risks; and on three steep sites, 97.4% with no significant risks.

Erodability

Monitoring sites were identified as Low, Medium, or High soil erodability. BMP compliance on a total of 47 low erodability sites was 95.2% with one significant risk; on 66 medium erodability sites, 89.5% with sixteen significant risks; and on 37 high erodability sites, 90.2% with eleven significant risks.

Distance to Permanent Water

Distance to nearest permanent water was determined for each monitoring site. BMP compliance on 59 sites with permanent water less than 300 feet away was 90.8% with eleven significant risks. On two sites with permanent water 300 to 800 feet away, compliance was 100% with no significant risks. Seven sites were 800 to 1600 feet from permanent water. BMP compliance on these sites was 93% with no significant risks. Of the 82 sites in which permanent water was greater than 1,600 feet away, BMP compliance was 91.6% with seventeen significant risks.

Professional Forester Involvement

BMP compliance was higher when a professional forester was involved in the activity. One hundred twenty three sites were identified as having a professional forester involved and had a compliance rating of 94%. Sites in which there was no forester involvement had a BMP compliance rating of 81%. See Figure 11.

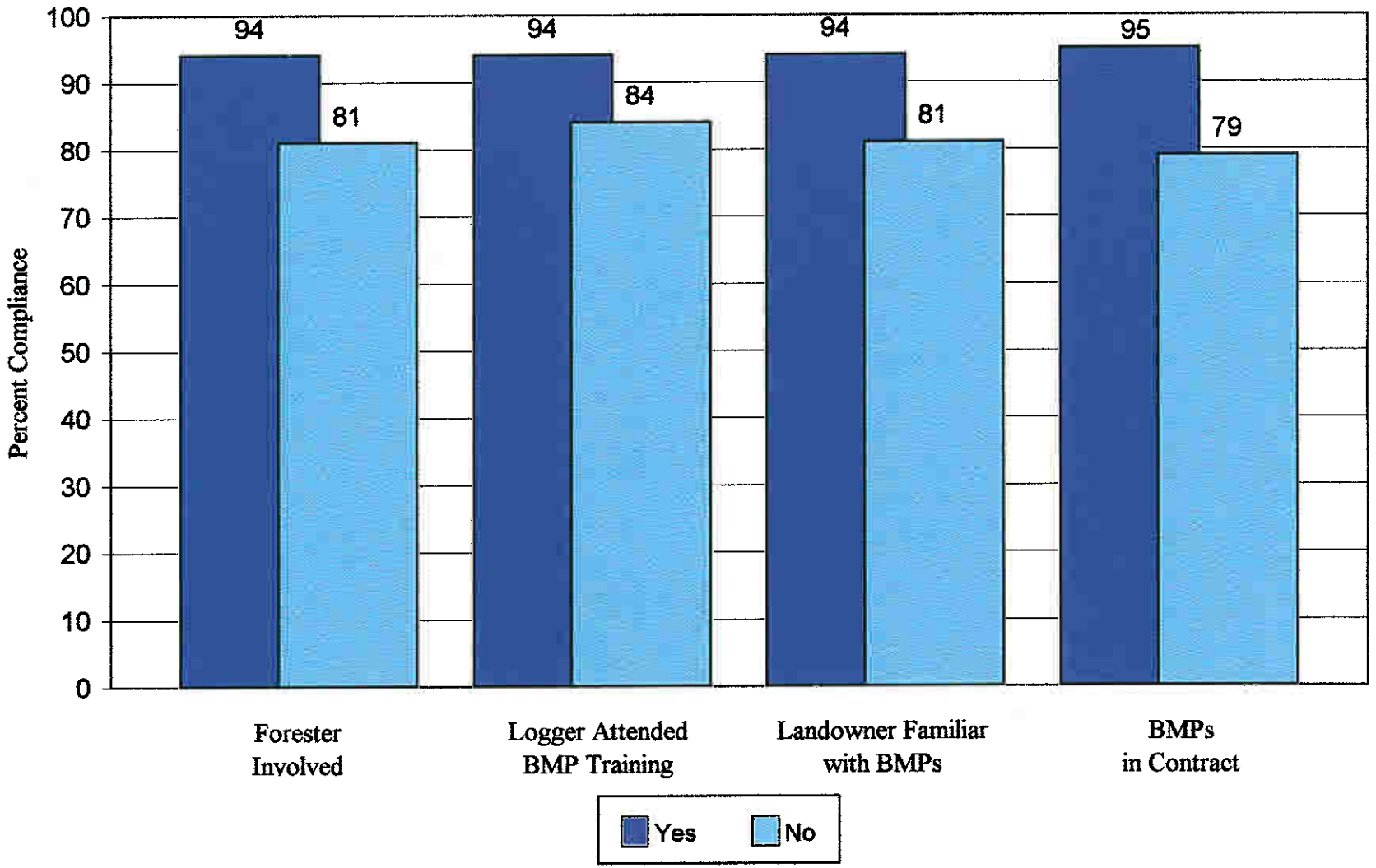
Landowner Familiarity with BMPs

Landowner familiarity with BMPs influences BMP compliance. Sites with landowners who were not familiar with BMPs had an overall compliance rating of 81%, while sites with landowners who were familiar with BMPs had a compliance rating of 94%. One hundred seventeen of 150 sites had landowners who were familiar with BMPs, while 30 were not. Landowner familiarity was unknown on 3 sites. See Figure 11.

Logging Contractor Attended BMP Workshop

Logging contractor familiarity with BMPs also influences compliance. The BMP Project conducts the logger BMP workshop in which contractors become more aware of BMPs and water quality. One hundred twenty two inspections identified the logging contractor as having attended the formal BMP training, with a compliance of 94%. Sites

Figure 11. Overall compliance by various levels of involvement



in which there was no attendance by the logger at the formal BMP training had a compliance rating of 84%. See Figure 11.

BMPs in Timber Sale Contract

BMPs were included in the timber sale contract, if applicable, on 118 sites. Compliance on sites with BMPs included in the contract was 95%, while compliance on tracts without BMPs in the contract was 79%. See Figure 11.

STATISTICAL SIGNIFICANCE

Two different statistical analyses were performed on the following categories: Professional Forester Involvement, Logger Attending BMP Training, Landowner Familiarity with BMPs, and BMPs Included in Contract. The first was a parametric test (one sample t – test), which was included because of the relatively large sample size. However, due to the nature of the percentage data, a non parametric test (Wilcoxon) was also performed. Percentages are not normally distributed, which invalidates the assumptions of the parametric test. To determine statistical significance, the resulting *P* value was compared to the level of significance. The *P* value is the probability of observing a value of the test statistic as contradictory (or more) to the null hypothesis as the computed value of the test statistic. In these tests, a 0.05 (5%) level of significance was used. For the two compliance ratings to be significantly different, the *P* value must be lower than the level of significance. The compliance ratings for the "yes" answers and the "no" answers were calculated to be significantly different in all of these categories. See Table 10.

Table 10. Results of *t*-tests Determining Statistically Significant Differences.

	% Compliance		Parametric *P* value	Non Parametric *P* value	Level of Significance	Statistically Different?
	Yes	No				
Forester Involved	94	81	< .0001	< .0001	0.05	Yes
Logger Attended BMP Training	94	84	.0152	.0378	0.05	Yes
Landowner Familiar with BMPs	94	81	<.0001	.0001	0.05	Yes
BMPs in Contract	95	79	<.0001	< .0001	0.05	Yes

DISCUSSION

As mentioned in the monitoring checklist section of this report, a new approach to reporting the percent compliance has been implemented. This new method was field tested extensively. Tracts were also scored the old way at the time of monitoring to see

how the new method paralleled the old. The results provided confidence in using the new reporting method.

Because of the change in reporting method, the results from this new method *cannot* be directly compared to the previous (Rounds 1-3) data. Consider the following example. BMP compliance on USFS-owned land is currently at 98.4%. It was 100% for the first three rounds. Did it actually decrease? Previously a tract *passed*, or was considered to be in compliance, if it received a Fair, Good, or Excellent score. Not all USFS tracts received an Excellent; however, they all passed and were all in compliance. Overall compliance on USFS tracts was 100% on previous rounds since all individual tracts were in compliance.

The new method of computing overall compliance considers the individual tract's actual percent compliance. For example, consider that on a particular tract, under the new method, the score is 85%. Using the old method, it is likely that the tract would have received at least a Fair. Previously that tract would have been added with all other Fair, Good, and Excellent scores, and then divided by the total number of tracts to determine overall compliance of all tracts. It is now factored in individually as an 85%. Every single tract would have had to receive a 100% under the new system to monitor at that level of compliance.

A brief discussion of the three previous rounds of monitoring is provided to give a historical perspective on BMP monitoring in Texas.

OVERALL COMPLIANCE – Rounds 1, 2, 3, and 4

Round 1 of BMP compliance monitoring, conducted between July 1, 1991 and August 31, 1992, yielded an overall compliance of 88.2. Round 2 of compliance monitoring, conducted between July 8, 1993 and November 15, 1995, showed an overall compliance of 87.4%. Round 3 of monitoring showed overall compliance with voluntary BMPs at 87.3%. Round 4 of BMP compliance monitoring conducted between June 3, 1998 and August 31, 1999 introduced a new method of monitoring BMP compliance. Under the old method, overall compliance was 90%. Using the new method, overall BMP compliance was 88.6%.

BMP compliance on industry land had steadily increased from 89.6% in Round 1 to 95.1% in Round 2 to 98.4 % in Round 3 to 98.6% (old method) and 94.2% (new method) in Round 4. This substantial increase documents the diligence of forest industry in using voluntary BMPs.

Publicly-owned land BMP compliance has increased from 93.3% in Round 1 to 100% in Round 2, and maintained its 100% compliance through Round 4 using the old method and 97.9% using the new method. In Round 4, the USDA Forest Service owned all 9 public sites that were monitored.

In Round 1 of monitoring, compliance on NIPF land was 86.3%. During Round 2, NIPF compliance was 82.9%. Round 3 showed NIPF compliance to be at 76.3%. NIPF compliance made an upward shift in Round 4 with a compliance of 79.1% (old) and 81.2% (new).

OVERALL COMPLIANCE – Round 5

Using the new method, BMP compliance on USFS-owned land is currently 98.4% with no significant risks to water quality identified. Compliance on industry-owned land is currently 96.1% with four significant risks, while compliance on NIPF land is 86.4% with twenty four significant risks to water quality. This results in an overall BMP compliance of 91.5% with a total of 28 significant risks over all ownership categories.

BMP compliance on NIPF land lags behind other ownerships and accounted for 24 of the 28 significant risks. NIPF landowners are generally less intensely involved in forest management, only infrequently sell timber, may be absentee, and may lack technical knowledge necessary to implement BMPs. It is important to note that the average size of the harvested NIPF tract was smaller than the industrial tracts. This lower level of compliance is occurring on smaller tracts while the higher level of BMP implementation is occurring on larger tracts of land.

Scores for this fifth round of monitoring were also calculated using the old method. Table 11 shows these results and compares all five rounds using the old method. This shows an across-the-board increase in compliance in each ownership category and overall from Round 3 to Round 5. NIPF landowners have improved from the last monitoring period; industry scores remain high, even improving slightly; and USFS lands are again at the 100% level.

Table 11. Percent Compliance by Ownership Type, All Five Rounds.

	Round 1	Round 2	Round 3	Round 4		Round 5	
				Old	New	Old	New
NIPF	86.3	82.9	76.3	79.1	81.2	81.1	86.4
Industry	89.6	95.1	98.4	98.6	94.2	100.0	96.1
Public	93.3	100.0	100	100	97.9	100.0	98.4
Overall	88.2	87.4	87.3	90	88.6	90.7	91.5

The majority of the USFS and industry tracts that were monitored installed BMPs that met or exceeded the recommended voluntary guidelines. Even though compliance for these two groups is less than 100% (98.4% for USFS and 96.1% for industry), no industry or public tracts received less than a passing score using the old system.

CONCLUSION

Positive correlations between landowner familiarity with BMPs, forester involvement, logging contractor training in BMPs, and BMP compliance were shown. The compliance percentages were statistically proven to be significantly different in all four of these categories. This demonstrates the need for NIPF landowners to involve a forester or some sort of professional assistance and a knowledgeable logging contractor to ensure BMP compliance.

Using the old method of site evaluation, across-the-board increases in compliance are shown from all landowner types from the last round to this round of monitoring. This demonstrates that the already-implemented education and training strategies geared towards loggers, landowners, and foresters were an impetus behind the increases in compliance. Concentrating innovative educational efforts on NIPF landowners and continuing BMP training for loggers appear to be the best methods for minimizing potential water quality impacts from silvicultural operations.

Appendix

Compliance Monitoring Checklist
(new and old forms)

Evaluation Criteria

Summary of Results

TEXAS FOREST SERVICE

The Texas A&M University System

TEXAS BMP MONITORING CHECKLIST

Site ID: 1

I. General Landowner and Tract Information

County | TFS Block and Grid | Region

Latitude | Longitude

Forester Type | Name

Timber Buyer | Logging Contractor

Activity | Acres Affected

Estimated Date of Activity | Date of Inspection

Inspector | Accompanied by

Owner Type: ☐ N ☐ A ☐ I ☐ P

Landowner:

Name | Address | City | State | Zip | Phone | E-mail:

II. Site Characteristics

Terrain: ■ Flat ■ Hilly ■ Steep

Erodibility hazard: ■ Low ■ Medium ■ High

Type stream present: ☐ Perennial ☐ Intermittent

Watershed Code: HUC

Distance to nearest permanent water body: ■ < 300' ■ 300 - 800' ■ 800 - 1600' ■ 1600' +

Predominant soil series/texture: ■ Clay ■ Clay Loam ■ Loam ■ Sandy Loam ■ Sand

III. Permanent Roads

	YES	NO	NA/NN	Sig. Risk
1. Respect sensitive areas, such as SMZs, steep slopes, and wet areas	■	■	■	☐
2. Meet grade specifications by having slopes between two and ten percent	■	■	■	☐
3. Rutting within allowable specs of less than six inches deep for not more than fifty feet	■	■	■	☐
4. Well drained with appropriate structures to minimize soil movemen	■	■	■	☐
5. Wing ditches, waterbars, and water turnouts do not dump into streams	■	■	■	☐
6. Reshaped and/or stabilized to minimize soil movement	■	■	■	☐
Section Total	0	0		0

BMPs present: ☐ RD ☐ WD ☐ WB ☐ RE ☐ OC ☐ PL ☐ RS ☐ CU ☐ BR ☐ LW

Percent Implementation: N/A

IV. Skid Trails/Temporary (secondary) Roads

	YES	NO	NA/NN	Sig. Risk
1. Slopes less than 15% and laid out on contour of land	■	■	■	☐
2. Respect sensitive areas, such as SMZs, steep slopes, and wet areas	■	■	■	☐
3. Well drained with appropriate water control structures to effectively reduce erosion	■	■	■	☐
4. Stabilized to minimize soil movement	■	■	■	☐
5. Rutting within allowable specs of less than six inches deep for not more than fifty feet	■	■	■	☐
Section Total	0	0		0

BMPs present: ☐ RD ☐ WD ☐ WB ☐ RE ☐ OC ☐ PL ☐ RS ☐ CU ☐ BR ☐ LW

Percent Implementation: N/A

V. Stream Crossings

	YES	NO	NA/NN	Sig. Risk
On Permanent Roads				
1. Stabilized stream banks, crossings at right angles, and no evidence of washouts	☐	☐	☐	☐
2. Wing ditches, waterbars, and water turnouts do not dump into streams	☐	☐	☐	☐
3. Stream free of sediment	☐	☐	☐	☐
4. Number of crossings minimized	☐	☐	☐	☐
On Temporary Roads				
5. Number of crossings minimized	☐	☐	☐	☐
6. Stream crossings correct to minimize potential erosion in the stream channel	☐	☐	☐	☐
7. Approaches at right angles to minimize bank disturbance	☐	☐	☐	☐
8. Stream crossings restored and stabilized by removing temporary crossings	☐	☐	☐	☐
9. Stream free of sediment	☐	☐	☐	☐
Section Total	0	0		0
Percent Implementation	N/A			

BMPs Present ☐ CU ☐ BR ☐ LW

VI. Streamside Management Zones

	YES	NO	NA/NN	Sig. Risk
1. Present on permanent stream	☐	☐	☐	☐
2. Present on intermittent stream	☐	☐	☐	☐
3. SMZ adequately wide by leaving fifty feet on both sides of the stream	☐	☐	☐	☐
4. Thinning within allowable specs by leaving 50 square feet of BA	☐	☐	☐	☐
5. SMZ integrity honored by keeping skidders, roads, landings, and firebreaks out	☐	☐	☐	☐
6. Stream clear of debris, such as tops, limbs, and debris	☐	☐	☐	☐
7. SMZ free of roads and landings	☐	☐	☐	☐
8. Stream free of sediment	☐	☐	☐	☐
Section Total	0	0		0
Percent Implementation	N/A			

VII. Site Preparation

Site preparation method

Regeneration method

	YES	NO	NA/NN	Sig. Risk
1. Respect sensitive areas by preventing site prep intrusion	☐	☐	☐	☐
2. No soil movement on site, especially broad scale sheet erosion	☐	☐	☐	☐
3. Firebreak erosion controlled to prevent potential erosion	☐	☐	☐	☐
4. SMZ integrity honored by preventing site prep intrusion	☐	☐	☐	☐
5. Windrows on contour / free of soil to minimize soil disturbance	☐	☐	☐	☐
6. No chemicals off site or entering water bodies	☐	☐	☐	☐
7. Machine planting on contour rather than up and down steep slopes	☐	☐	☐	☐
8. Stream free of sediment	☐	☐	☐	☐
Section Total	0	0		0
Percent Implementation	N/A			

VIII. Landings

	YES	NO	NA/NN	Sig. Risk
1. Locations free of oil / trash and properly disposed of	☐	☐	☐	☐
2. Located outside of SMZ to minimize traffic and erosion in the SMZ	☐	☐	☐	☐
3. Well drained location to mimimize puddling, soil degradation, and soil movemen	☐	☐	☐	☐
4. Number and size minimized	☐	☐	☐	☐
5. Respect sensitive areas, including SMZs, steep slopes, and wet areas	☐	☐	☐	☐
6. Restored / stabilized by back blading, spreading bark, or seeding to minimize erosion	☐	☐	☐	☐
Section Total	0	0		0
Percent Implementation	N/A			

IX. Wetlands (may or may not be jurisdictional)

	YES	NO	NA/NN	Sig. Risk
1. Avoid altering hydrology of site by minimizing ruts and soil compactio	☐	☐	☐	☐
2. Road drainage structures installed properly to maintain flow of water	☐	☐	☐	☐
3. Mandatory road BMPs followed	☐	☐	☐	☐
Section Total	0	0		0
Percent Implementation	N/A			

X. Overall Compliance

	YES	NO	NA/NN	Sig. Risk
III. Permanent Roads	0	0	☑	0
IV. Skid trails/Temporary Roads	0	0	☑	0
V. Stream Crossings	0	0	☑	0
VI. Streamside Management Zones	0	0	☑	0
VII. Site Preparation	0	0	☑	0
VIII. Landings	0	0	☑	0
IX. Wetlands	0	0	☑	0
Overall Total	0	0		
Total Significant Risk				0
Percent Implementation	Error			

Needs Improvement		Pass		
☐ No Effort	☐ Poor	☐ Fair	☐ Good	☐ Excellent

Follow Up Questions

	YES	NO	NA/NN	
Was activity supervised by landowner or representative?	☐	☐	☐	
Who?				
Was landowner familiar with BMPs?	☐	☐	☐	
Has logger attended BMP Workshop?	☐	☐	☐	
Were BMPs included in the contract?	☐	☐	☐	
Is landowner a member of TFA? Landowner Association? Other?	☐	☐	☐	
Organization				
Is remediation planned by landowner (if needed)?	☐	☐	☐	Date

Comments (Explain observed actions in the field check. Make recommendations.)

Map/Sketch Area (on back if needed)

SITE ID NO:

TEXAS BMP MONITORING CHECKLIST

GENERAL

1. County_____ 2. Block/Grid_____
3. Latitude_____ Longitude_____
Forester: 4. _____ 5. _____
6. Timber Buyer _____
7. Logger _____

8. Activity _____
9. Estimated date of activity _____
10. Acres affected _____
11. Inspector _____

LANDOWNER:

12. Owner Type: N L A I P

13. Name _____
14. Address_____
15. City _____ ZIP _____
16. Phone _____

17. Date of Inspection _____
18. Accompanied by:_____

SITE CHARACTERISTICS

19. Terrain: F H S
20. Erodability hazard: L M H
21. Type stream present P I

22. Distance to nearest permanent water body:
<300' 300-800' 800-1600' 1600'+
23. Predominant soil series/texture: _____ / C CL L SL S

PERMANENT ROADS

[ ] NOT APPLICABLE

24. Avoid sensitive areas.	Y N NA
25. Roads meet grade specs.	Y N NA
26. Stabilized stream crossing.	Y N NA
27. Rutting within allowable specs.	Y N NA
28. Ditches do not dump into streams.	Y N NA
29. Were BMP's used.	Y N NA
Type: RD WD WB RE OC PL RS CU BR LW	
30. Were BMP's effective.	Y N NA
31. Stream free of sediment.	Y N NA

SKID TRAILS / TEMPORARY ROADS

[ ] NOT APPLICABLE

32. Slopes less than 15%.	Y N NA
33. Rutting within allowable specs.	Y N NA
34. Water bars evident.	Y N NA
35. Water bars working.	Y N NA
36. Stream crossings minimized.	Y N NA
37. Stream crossings correct.	Y N NA
38. Stream crossings restored & stabilized.	Y N NA
39. Were BMP's used.	Y N NA
Type: RD WD WB RE OC PL RS CU BR LW	
40. Stream free of sediment.	Y N NA

SMZ

[ ] NOT APPLICABLE

41. SMZ present on permanent stream.	Y N NA
42. SMZ present on intermittent stream.	Y N NA
43. SMZ adequately wide.	Y N NA
44. Thinning within allowable specs.	Y N NA
45. SMZ integrity honored.	Y N NA
46. Stream clear of debris.	Y N NA
47. SMZ free of roads and landings.	Y N NA
48. Stream free of sediment.	Y N NA

SITE PREPARATION

[ ] NOT APPLICABLE

49. Site prep method _____	
50. Regeneration method _____	
51. No soil movement on site.	Y N NA
52. Firebreak erosion controlled.	Y N NA
53. SMZ integrity honored.	Y N NA
54. Windrows on contour / free of soil.	Y N NA
55. No chemicals off site.	Y N NA
56. Were BMP's used.	Y N NA
Type: WB RE OC RS	
57. Stream free of sediment.	Y N NA

LANDINGS

[ ] NOT APPLICABLE

58. Locations free of oil / trash.	Y N NA
59. Located outside SMZ.	Y N NA
60. Well drained location	Y N NA
61. Restored, stabilized.	Y N NA

---

62. **Overall compliance with Best Management Practices**

NEEDS IMPROVEMENT		PASS		
NO EFFORT	POOR	FAIR	GOOD	EXCELLENT

See Evaluation Criteria for a full description of numbered questions.

FOLLOW UP QUESTIONS

Was activity supervised by landowner or representative?	Y N NA	Who _____
Was landowner familiar with BMP Handbook?	Y N NA	
Was logger familiar with BMP Handbook?	Y N NA	
Were BMP's included in the contract?	Y N NA	
Is landowner a member of TFA? Landowner Assn? For. Farmer?		

.....

Is remediation planned by landowner (if needed)? Y N Date _____

COMMENTS (Explain discrepancies observed in the field check. Recommendations for better compliance).

MAP / SKETCH AREA

Evaluation Criteria for BMP Monitoring Checklist
Texas Forest Service BMP Project

I. General Landowner and Tract Information

County: TFS County code.
TFS Block and Grid: Enter only entry point if multiple blocks or grids.
Latitude and Longitude:
Forester Type: Professional, i.e. consultant, industry, etc.
Forester Name: First and last name.
Timber Buyer: First and last name or Corporation name.
Logging Contractor: First and last name or business name.
Activity: Type activity occurring, e.g. harvesting, site preparation, etc.
Acres Affected: Acres affected by activity.
Estimated Date of Activity: Quarter and year activity appears to have occurred. Use first entry if multiple entries.
Date of inspection: mmddyy.
Inspector: Name of TFS forester doing BMP inspection.
Accompanied by: Name of landowner, industry or consulting forester, logger, etc. who is present during the inspection.
Owner Type: Nonindustrial (N), Absentee nonindustrial (A), Industry (I), Public (P).
Name, Address, City, Zip, and Phone: Contacts for the landowner.

II. Site Characteristics

Terrain: Check only one; Flat, Hilly, or Steep.
Erodibility hazard: Check only one; Low, Medium, or High.
Type stream present: Perennial or Intermittent.
Distance to nearest permanent water body: Distance to nearest blue line stream or lake.
Predominant soil series: Series number form Soil Survey data (if available).
Predominant soil texture: Check only one; Clay, Clay Loam, Loam, Sandy Loam, or Sand.

III. Permanent Roads

1. Respect sensitive areas: Do roads avoid wet areas, SMZs, steep slopes if an alternative exist, erosion prone areas if an alternative exists, etc.?
2. Roads meet grade specs: Pertains to new roads or roads which are substantially reworked. Are roads within 2-10 percent grade except for short distances? Are roads on contour? Are ridge tops avoided?
3. Rutting within allowable specs: Is the road free of ruts in excess of 6 inches deep for more than 50 feet?
4. Well drained with appropriate structures: Are roads constructed so that water will quickly drain from them to minimize soil movement?
5. Ditches do not dump into streams: Are water turn outs and water bars venting far enough from the stream to prevent sediment from entering the stream channel?
6. Roads reshaped and stabilized: If needed, are roads reworked to minimize soil movement?

BMPs present: Which types of BMPs were used? Rolling dips (RD), Wing ditches (WD), Water bars (WB), Revegetate (RE), On contour (OC), Proper placement (PL), Reshaping (RS), Culverts (CU), Bridge (BR), Low water crossing (LW).

IV. Skid Trails/Temporary Roads

1. Slopes less than 15 %: Are skid trails run on or near contour as per guideline recommendations, rather than up and down steep slopes?
2. Respect sensitive areas: Do skid trails and temporary roads avoid wet areas, SMZs, steep slopes if an alternative exist, erosion prone areas if an alternative exists, etc.?
3. Roads well drained with water bars or other water control structures: Were BMPs installed effectively to reduce erosion from the road?
4. Roads stabilized: If needed, are skid trails and temporary roads worked to minimize soil movement?
5. Rutting within allowable specs: Are skid trails and temporary roads free of ruts in excess of 6 inches deep for more than 50 feet?

BMPs present: see section III above.

V. Stream Crossings

On Permanent Roads:

1. Stabilized: Are stream banks and fill stabilized? Are culverts properly sized? Are bridges used where necessary? Are washouts evident? Are crossings at right angles?
2. Ditches do not dump into streams: Are water turn outs and water bars venting far enough from the stream to prevent sediment from entering the stream channel?
3. Stream free of sediment: Has sedimentation from the road into the stream channel been minimized?
4. Number of crossings minimized: Was an effort made to use as few crossings as possible?

On Temporary Roads

5. Number of crossings minimized: Was an effort made to use as few crossings as possible?
6. Stream crossings correct: Is the crossing located so as to minimize the potential erosion in the stream channel? Is the crossing at a right angle to the stream channel?
7. Approaches at right angles: Are approaches at right angles to the stream channel to minimize bank disturbance?
8. Stream crossings restored and stabilized: Have the temporary crossings been removed, excess fill removed from the stream channel and the banks been stabilized against erosion? Has the SMZ been stabilized in the area of the crossing?
9. Stream free of sediment: Has sedimentation from the road into the stream channel been minimized?

BMPs present: Which types of BMPs were used? Culverts (CU), Bridge (BR), Low water crossing (LW).

VI. Streamside Management Zones

1. Present on permanent stream: Is there an SMZ present on any permanent stream?
2. Present on intermittent stream: Is there an SMZ present on any intermittent stream?
3. SMZ adequately wide: Is the stream being protected from erosion and deposition of sediments? Does the width meet the guidelines recommendations?
4. Thinning within allowable specs: If thinning was done, is the basal area remaining at least 50 square feet? Is there minimal soil disturbance from felling and skidding?
5. SMZ integrity honored: Was an effort made to stay out of the SMZ with skidders, landings, roads, etc. (except for designated stream crossings)? Is the SMZ free of firebreaks?
6. Stream clear of debris: Are tops and limbs removed from permanent and intermittent stream channels? Has any brush or debris pushed into the stream channel been removed?
7. SMZ free of roads and landings: Were guidelines followed in locating roads and landings outside of the SMZ?
8. Stream free of sediment: Has sedimentation reaching the stream channel through the SMZ been minimized?

VII. Site Preparation

Site preparation method: Shear/pile/burn, Sheer only, Drum chop, Hot fire, Chemical, Disk/bed, Sub-soil, Disk/burn, Disking only.

Regeneration method: Mechanical, Hand, Natural, None.

1. Respect sensitive areas. Effort to prevent site prep intrusion into sensitive areas? Effort to prevent heavy equipment intrusion into sensitive areas? Effort to prevent fire intrusion into sensitive areas?
2. No soil movement on site: Is there no soil movement on site? Are rills or gullies prevented? Is there no problem with broad scale sheet erosion?
3. Firebreak erosion controlled: If present, has potential erosion from firebreaks been minimized as per guideline recommendations?
4. SMZ integrity honored: Effort to prevent site prep intrusion into the SMZ? Effort to prevent heavy equipment intrusion into the SMZ? Effort to prevent fire intrusion into the SMZ? Are perennial or intermittent streams free of debris?
5. Windrows on contour / free of soil: Are windrows on contour on hilly lands rather than up and down slopes? Was soil disturbance minimized? Was soil in windrows minimized?
6. No chemicals off site: Does it appear that chemicals were used according to label directions? Have they remained on site and out of water bodies?
7. Machine planting on contour: Are rows on contour on hilly lands rather than up and down slopes?
8. Stream free of sediment: Has sedimentation reaching the stream channel because of site prep activities been minimized?

VIII. Landings

1. Locations free of oil / trash: Any sign of deliberate oil spills on soil? Is trash picked up and properly disposed of?
2. Located outside of SMZ: Was the landing located outside SMZ so as to minimize traffic and erosion in the SMZ?
3. Well drained location: Were the landings located so as to minimize puddling, soil degradation and soil movement?
4. Number and size minimized: Were the number and size of landings kept to a minimum?
5. Respect sensitive areas: Were landings kept out of wet areas, SMZs, steep slopes if an alternative exist, erosion prone areas if an alternative exists, etc.?
6. Restored / stabilized: Has the landing been back bladed or otherwise restored as per guideline recommendations? Has erosion been minimized through spreading bark, etc., seeding, water bars, or other recommended BMP practices?

IX. Wetlands (may or may not be jurisdictional)

1. Avoid altering hydrology of site: Were ruts and soil compaction kept to a minimum?
2. Road drainage structures installed properly: Were BMPs installed to effectively to maintain the flow of water and keep erosion to a minimum in the wetland?
3. Mandatory road BMPs followed: Were the 15 federal mandatory BMPs followed?

X. Overall Compliance

Section compliance percentages are determined by dividing the number of questions receiving a yes answer by the total applicable questions in each section. Y/(Y+N)

Overall compliance is determined in a similar manner using the totals from all sections combined. Y/(Y+N)

Significant Risk. A significant risk to water quality exists if during a normal rainfall sediment is likely to be delivered to a permanent water body.

Subjective Score.

No Effort: Substantial erosion as a result of operations. Sedimentation in streams. Temporary stream crossings not removed. No SMZ when needed, etc. Poor attitude evident about the job.

Poor: Some effort at installing BMPs. Generally poor quality construction or no effort in certain locations which suffer from erosion, stream sedimentation, etc. Substantial lack of BMPs in a particular emphasis such as roads, skid trails or SMZ.

Fair: (1) Generally a pretty good effort at BMPs. Poor application procedures perhaps. Lack of BMPs in a particular emphasis but with moderate consequences. (2) No BMPs on a site which requires few BMPs but has some resultant minor problems.

Good: (1) BMPs generally installed correctly. Guidelines generally followed. Allows for some failures of BMP devices or failure to observe guidelines but with light consequences. (2) Good quality job which required no BMPs and has few problems.

Excellent: (1) BMPs installed correctly. Guidelines followed. (2) Some BMPs implemented even when they might not have been required. Few if any problems exist.

Summary of Responses to BMP Compliance Monitoring Checklist Items, All Sites, Round 5

I. General Landowner and Tract Information

Owner type		Forester type		Activity	
NIPF	42	Industry	66	Regeneration Harvest	
NIPF-Absentee	32	Private Consultant	47	Clearcut	78
Industry	66	Public	10	Partial	10
USFS (Public)	10			Thinning	40
				Site Prep only	10
				Planting	12

II. Site Characteristics

Terrain		Erodibility hazard		Type stream present	
Flat	48	Low	47	Perennial	54
Hilly	99	Medium	66	Intermittent	94
Steep	3	High	37	Both	29
				None	31

Distance to nearest permanent water body

< 300'	59
300 - 800'	2
800 - 1600'	7
1600' +	82

Predominant soil series/texture

Clay	6	Sandy loam	95
Clay loam	13	Sand	19
Loam	17		

III. Permanent Roads — 129 applicable

	Yes	No	NA/NN	Sig. Risk
1. Respect sensitive areas	128	1	21	0
2. Roads meet grade specs	128	1	21	0
3. Rutting within allowable specs	121	8	21	0
4. Well drained with appropriate structures	97	28	25	2
5. Ditches do not dump into streams	113	3	33	0
6. Roads reshaped and stabilized	113	16	21	0

IV. Skid Trails/Temporary (secondary) Roads — 94 applicable

	Yes	No	NA/NN	Sig. Risk
1. Slopes less than 15%	92	2	56	1
2. Respect sensitive areas	85	9	56	0
3. Roads well drained with water bars or other water control structures	63	23	64	2
4. Roads stabilized	75	19	56	0
5. Rutting within allowable specs	83	11	56	0

V. Stream Crossings

	Yes	No	NA/NN	Sig. Risk
On Permanent Roads — 36 applicable				
1. Stabilized	35	7	108	3
2. Ditches do not dump into streams	35	1	114	0
3. Stream free of sediment	36	6	108	1
4. Number of crossings minimized	40	2	108	0
On Temporary Roads — 36 applicable				
5. Number of crossings minimized	33	9	108	2
6. Stream crossings correct	36	6	108	0
7. Approaches at right angles	39	3	108	0
8. Stream crossings restored and stabilized	30	12	108	4
9. Stream free of sediment	32	10	108	2

VI. Streamside Management Zones

119 applicable

	Yes	No	NA/NN	Sig. Risk
1. Present on permanent stream	52	2	96	1
2. Present on intermittent stream	85	13	52	6
3. SMZ adequately wide	82	35	33	0
4. Thinning within allowable specs	97	13	40	0
5. SMZ integrity honored	99	13	38	0
6. Stream clear of debris	106	13	31	4
7. SMZ free of roads and landings	112	3	35	0
8. Stream free of sediment	113	6	31	0

VII. Site Preparation

54 applicable

	Yes	No	NA/NN	Sig. Risk
1. Respect sensitive areas	50	4	96	0
2. No soil movement on site	53	1	96	0
3. Firebreak erosion controlled	29	4	117	0
4. SMZ integrity honored	46	2	102	0
5. Windrows on contour/free of soil	18	4	128	0
6. No chemicals off site	38	2	110	0
7. Machine planting on contour	9	4	137	0
8. Stream free of sediment	50	0	100	0

VIII. Landings

103 applicable

	Yes	No	NA/NN	Sig. Risk
1. Locations free of oil/trash	95	8	47	0
2. Located outside of SMZ	97	0	53	0
3. Well-drained location	101	1	48	0
4. Number and size minimized	102	0	48	0
5. Respect sensitive areas	102	0	48	0
6. Restored/stabilized	97	5	48	0

IX. Wetlands

31 applicable

	Yes	No	NA/NN	Sig. Risk
1. Avoid altering hydrology of site	28	3	119	0
2. Road drainage structures installed properly	15	1	134	0
3. Mandatory road BMPs followed	15	0	135	0

X. Overall Compliance

	Yes	No	NA/NN	Sig. Risk
III. Permanent Roads - 92%	700	57	142	2
IV. Skid Trails/Temporary Roads - 86%	398	64	288	3
V. Stream Crossings - 85%	316	56	978	12
VI. Streamside Management Zones - 88%	746	98	356	11
VII. Site Preparation - 90%	293	21	886	0
VIII. Landings - 98%	594	14	292	0
IX. Wetlands - 94%	58	4	388	0

Follow-up Questions

	Yes	No	NA/NN
Was activity supervised by a professional forester?	123	25	2
Was landowner familiar with BMPs?	117	30	3
Has logger attended BMP workshop?	122	8	20
Were BMPs included in the contract?	118	21	11
Is landowner a member of TFA, LO Assoc., etc.?	102	26	22

TEXAS FOREST SERVICE
The Texas A&M University System

September 10, 2001

John Landowner
1466 Deer Run Road
Diboll, TX 75941

Dear Mr. Landowner,

Thank you for giving me permission to visit your property to assess compliance with the *voluntary* Best Management Practices (BMPs) on your recent logging operation. Enclosed is a copy of the checklist we completed after evaluating your tract. Please read the comments section on page three of the form.

The score on page three, section ten rates the tract as Pass or Needs Improvement. This is a rating of the overall operation *only as it relates to water quality* and meeting BMP recommendations. If your tract rates Good or Excellent, you and your logger have done well. If the compliance rated Fair, some effort at protecting water quality was made but problems exist. If your tract had rated Needs Improvement, erosion has or will occur and water quality will most likely be impacted as a result of the operation.

Section ten assigns an overall compliance percentage computed by dividing the number of questions receiving a yes answer by the total applicable questions [Y/(Y+N)]. This is the percent compliance score that your tract received with regards to protection of water quality. A significant risk to water quality will be noted if during a normal rainfall sediment is expected to be delivered to a permanent water body.

We have been recommending BMPs since 1990; however some landowners and loggers still do not fully understand the importance in protecting water quality with BMPs. All of us in forestry need to operate in ways that will protect water quality. In Texas, we have an opportunity to preserve or enhance water quality by *non-regulatory (voluntary)* means. Some states do not have that luxury. With mandatory regulation, landowners face permits, time delays, and severe restrictions on how they operate. In Texas, if we demonstrate voluntarily that we can maintain or improve our water quality while harvesting our timberland, we can avoid the pain of mandatory restrictions.

We strongly urge you to become more familiar with and continue to use BMPs on your land to protect water quality. With your continued help we can continue our water quality improvements on a voluntary basis. If you have any questions regarding this BMP evaluation, please feel free to contact me at my office at (936) 639-8183 or by email at hsimpson@tfs.tamu.edu. Thanks!

Sincerely,

Hughes S. Simpson

Hughes S. Simpson
BMP Project Forester

Best Management Practices
2127 S. First, Hwy. 59S ★ P. O. Box 310 ★ Lufkin, Texas 75902-0310
TEL 409/639-8180 ★ FAX 409/639-8185
http://txforestservice.tamu.edu

TEXAS FOREST SERVICE
The Texas A&M University System

March 12, 2002

John Logger
Route 2, Box 5251
Lufkin, TX 75901

Dear Mr. Logger,

I recently completed a Best Management Practices evaluation of a harvest done on property owned by John Landonwer in Angelina County at the intersection of FM 3258 and CR 701. The landowner indicated that you or your company conducted the logging. Enclosed is a copy of the monitoring checklist I completed in evaluating the operation. Please read the comments section on page three of the form.

This assessment addressed only those aspects of the harvesting/site preparation operation affecting water quality - no other part of the operation was evaluated. Please note that the form is divided into sections.

The entire operation is judged for compliance with meeting these BMP recommendations. This report now indicates an overall percent compliance and compliance by section. Section and total compliance percentages are calculated by dividing the number of questions receiving a yes answer by the total number of applicable questions [Y/(Y+N)]. The significant risk category is checked if sediment is likely to be delivered to a permanent water body during a normal rainfall as a result of that activity.

The score on page three, section ten rates the tract as Pass or Needs Improvement. This is not a rating of the overall logging/site preparation operation but *only as it relates to water quality* and meeting BMP recommendations. If the tract rates Good or Excellent the landowner and the logger have done well in regard to water quality. If the compliance rated Fair, some effort at protecting water quality was made but problems exist. If the tract rated Needs Improvement, erosion has or will occur and water quality will be impacted as a result of the operation.

These BMP recommendations have been in place since 1990. However, some landowners and loggers are not familiar with the need to protect water with BMPs. In Texas, we have an opportunity to sustain or enhance water quality by *voluntary* means. Some states do not have that luxury. With mandatory regulation, loggers face permits, time delays, and severe restrictions on their operations. In Texas, if we demonstrate *voluntarily* that we can maintain or improve our water quality while harvesting or site preparing our timberland, we may avoid the pain of mandatory restrictions.

We strongly urge you to use BMPs on your operations to protect water quality. With your help we can continue our water quality improvements on a voluntary basis; without it, the process may soon become regulatory. If you have any questions regarding this evaluation, please contact me at (936) 639-8183.

Sincerely,

Hughes S. Simpson

Hughes S. Simpson
BMP Project Forester

Best Management Practices
2127 S. First, Hwy. 59S ★ P. O. Box 310 ★ Lufkin, Texas 75902-0310
TEL 409/639-8180 ★ FAX 409/639-8185
http://txforestservice.tamu.edu

TEXAS FOREST SERVICE
The Texas A&M University System

September 10, 2001

John Forester
Forester's Timber Management
PO Box 865
Jasper, TX 75951

Dear Mr. Forester,

Thank you for accompanying me to Mr. Landowner's tract to assess compliance with the *voluntary* Best Management Practices (BMPs) on his recent harvesting operation. Enclosed are copies of the checklists I completed after evaluating the tract. Please read the comments section on the back of the form.

The score in the middle of page three rates the tract as Pass or Needs Improvement. This is a rating of the overall operation *only as it relates to water quality* and meeting BMP recommendations. If your tract rates Good or Excellent; you and your logger have done well. If the compliance rated Fair, some effort at protecting water quality was made but problems exist. If your tract rated Needs Improvement, erosion has or will occur and water quality will be impacted as a result of the operation.

Section ten assigns an overall compliance percentage computed by dividing the number of questions receiving a yes answer by the total applicable questions [Y/(Y+N)]. This is the percent compliance score that your tract received with regards to protection of water quality. A significant risk to water quality will be noted if during a normal rainfall, sediment is expected to be delivered to a permanent water body.

I have sent copies of these forms to the landowner and logging contractor. Your cooperation in this effort to protect water quality and maintain voluntary BMPs in Texas is greatly appreciated. If you have any questions regarding this BMP evaluation, please feel free to contact me by phone at (936) 639-8183 or by email at hsimpson@tfs.tamu.edu.

Sincerely,

Hughes S. Simpson
BMP Project Forester

/hss
Enclosures

Best Management Practices
2127 S. First, Hwy. 59S ★ P. O. Box 310 ★ Lufkin, Texas 75902-0310
TEL 409/639-8180 ★ FAX 409/639-8185
http://txforestservice.tamu.edu

Caddo Lake

On Wednesday evening, a boat cruise on Caddo Lake will be followed by dinner at Bayou Landing overlooking the lake. Caddo Lake was the only natural lake in Texas until it was artificially dammed for flood control in 1914. Caddo Indian legend attributes the formation of the lake to an earthquake. The lake is a maze of bayous and sloughs covering 32,000 acres of cypress swamp.

Second Biennial

Four State/EPA Forestry NPS

Conference

October 4-7, 1999

Homewood Suites
Longview, Texas

Sponsored by the Texas Forest Service
Best Management Practices Project

Monday, October 4

6:30 – 8:30 p.m. Complimentary Manager's Social
Registration Begins

Tuesday, October 5

8:00 – 9:00 a.m. Continental Breakfast and
Conference Registration
9:00 – 9:15 Welcome to Texas
Jim Hull, Director,
Texas Forest Service
9:15 - 10:15 State Updates
Oklahoma – *John Norris,*
ODA Forestry Services
Louisiana – *Don Feduccia,*
Louisiana Forestry Commission
10:15 – 10:30 Break
Arkansas – *Dennis Eagle,*
Arkansas Forestry Commission
Texas – *Burl Carraway,*
Texas Forest Service
11:30 – 12:00 Sustainable Forestry Initiative(SM)
David Hudnall, Louisiana-Pacific

12:00 p.m. Lunch

1:30 – 2:00 Assessment of Current Drivers and Future
Trends in 319(h) Funding
Brad Lamb, EPA
2:00 – 2:30 Clean Water Action Plan
Susan Branning EPA
2:30 – 3:00 Effectiveness Monitoring
Jim Shepard, NCASI
3:00 – 3:15 Break
3:15 – 3:45 TMDLs
Susan Branning, EPA
3:45 – 4:15 Wetlands
Jack Hill, USFS/EPA
4:15 – 4:45 A Logger's Perspective on BMPs
John Bradley, Bradley Contractors

6:30 – 8:30 Complimentary Manager's Social

Wednesday, October 6

7:45 a.m. Meet in Conference Room Ready for Field Trip
(Dress appropriately- we will not be returning
to the hotel before the boat tour and dinner)

8:00 – 12:00 Field Stops
Intensive NIPF Forest Management and
BMP Implementation
Active Logging (weather permitting)
Site Preparation
James Houser, Consulting Forester

12:00 p.m. Lunch (Catered)

12:45 Sawmill Tour
Snider Industries
Jill Parr, Snider Industries

2:00 – 5:00 Field Stops
NIPF Forest Management

Industry Forest Management
David Hudnall, Louisiana-Pacific

GIS Data Collection Demonstration (Roads/SMZs)
Larry Clendenen, Texas Forest Service

5:00 Load Vans – Depart for Caddo Lake
Boat Cruise of Caddo Lake
Catered Dinner at Bayou Landing

Thursday, October 7

8:30 – 9:00 a.m. GIS/GPS Data Demonstration
Larry Clendenen, Texas Forest Service
9:00 – 9:30 Forest Sustainability
David Hoge, USFS
9:30 – Wrap-up Discussions
Q & A Regarding Field Tour
Next Meeting
Critique Forms

Adjourn

MTFA Spring Tour!

Northeast Texas Forestry Field Tour
May 4th & 5th 2001

Cost:
Tour itself is **FREE.** Participants are responsible for their own cost of meals and one night accommodation**

Tour Itinerary:
Friday, May 4th

8:00 am **Depart from Dallas**
Vans will depart from Texas A & M Extension Center Located at 17360 Coit Road. Parking will be available behind the center

11:00 PM **Texas Forest Service Office-Marshall**
Topics: Duties and responsibilities of the foresters, landowner assistance programs, open discussion
TFS office is located at 5700 Karnack (Hwy 43)

12:00 PM **Lunch**
Lunch will be at Applebee's Restaurant in Marshall located at 2305 South East Blvd (Hwy 59). Approximate cost $10

1:30 PM *Maps for afternoon will be provided at Marshall TFS office*
Reforestation Site
Topics: Factors to consider when planting or replanting, planting process overview, wetland considerations

Harvest Site
Topics: International Paper foresters will discuss purchasing private timber tracts, view of harvest operations

Tree Farm Site
Topics: Description, operations, management

Wildlife Management
Topics: Considerations, accomplishing, game versus non-game management

5:30 PM **Check into Hotel**
*Rooms have been reserved at the Holiday In Express in Marshall located at 4911 East End Blvd (hwy 59)***

7:00 PM **Dinner in Jefferson**
Vans will shuttle to Jefferson where there are several restaurants to choose from that are within close walking distance of each other In the Historic Downtown District. Approximate cost $15.

9:30 PM **Return to Hotel**

Saturday, May 5th

6:30 am **Breakfast and Check Out**
Your choice of Continental Breakfast (free) at hotel or van will shuttle to Golden Corral (approximate cost $6) located across the street from hotel on Hwy 59

8:00 am **Mill Tour**
International Paper Oriented Strand Board (OSB) Mill

10:30 am **Wrap-up and Return to Dallas**
We will stop on the way back to eat lunch. Approximate cost $7

3:00 PM **Arrive back to Dallas**

****Accommodations:**
Tour participants must make own overnight accommodations. Rooms have been reserved for May 4th in Marshall under the name "Metroplex Timber & Forest Assoc." at The Holiday Inn Express, 4911 East End Blvd (Hwy 59). The rate is $59.00 plus tax. The phone number to make reservations is (903) 935-7923. **Reservations need to be made by April 15, 2001.**

Preregistration is required (form attached) and must be received by April 15, 2001. Please submit preregistration form to:

Texas Forest Service
4200 South Freeway Suite 2200
Fort Worth TX 76115

For more information or additional registration forms, please contact the Texas Forest Service Fort Worth office at 817-926-8203.

Hope to see you there!

Metroplex Timber & Forest Association
Dallas Meeting

February 17, 2001
Texas A & M Research & Extension Center

7:30 Registration

8:00 Welcome, Joe Beard, president MTFA

8:15 Lowering your property tax through SB977, Burl Carraway, TFS

9:15 Water quality management plans, Jake Donellan, TFS

10:00 Break

10:30 Mill efficiency and future wood demands, Ed Barron, TFS

11:30 Forestry Legislation, Ron Hufford, TFA

12:00 Lunch

1:00 Reforestation, John Norris, TFS

2:00 East Texas wetlands restoration and development, Don Wilhelm, USFW

2:45 Wrap up

Texas Agricultural Extension Service
THE TEXAS A&M UNIVERSITY SYSTEM

TEXAS FOREST SERVICE

TXU

MTFA Fall Tour!

East Texas Forestry Field Tour
October 5th & 6th, 2001

Location:	**Stephen F. Austin Piney Woods Conservation Center** Located near Nacogdoches in Broaddus, Texas
Cost:	**$65/person** - includes all meals, lodging, and transportation
Tour Itinerary:	**Friday, October 5th**
8:00 am	**Depart from Dallas** *Vans will depart from Texas A & M Extension Center* *Located at 17360 Coit Road. Parking is available*
Noon	**Lunch in Nacogdoches** *LaHacienda Restaurant located on Hwy 59*
1:30 pm	**Cal Tex Lumber Mill** *2912 Rayburn Drive, Nacogdoches*
3:30 pm	**Arrive & Check-in to Piney Woods Conservation Center** *located on FM 3127 southeast of Broaddus, Texas*
4:00 pm	**Marking & Cruising Timber Workshop Part I** Hands-on in the forest workshop on determining basal area, tree stand density, timber volume, and log size. *Presented by Hughes Simpson et al, TFS*
5:30 pm	**Dinner**
6:30 pm	**Marking & Cruising Timber Workshop Part II** Establishing in the field sample plots, 10th acre plots & 10% cruises, and timber marking methods *Presented by Hughes Simpson et al, TFS*
8:00 pm	**Timber Theft Prevention** *presented by RonDavis (or Rodney Monk), TFS*
9:00 pm	**Retire for the evening**

Tour Itinerary: **Saturday, October 6th**

8:00 am	**Breakfast**
8:30 am	**Tree Identification Workshop** Hands-on in the forest tips on identifying primary tree species *presented by L. Schaapveld & C. Blevins, TFS*
10:00 am	**Benefits of Herbicides** *presented by David Leary*
10:30 am	**Seedling Survival Strategies** Determining seedling survival rates. Practice sample plotting in the field. Measuring planting success and spacing. When to replant. *presented by Eric Taylor, TAES (or Mike Murprhey, TFS)*
Noon	**Lunch**
12:30 pm	**Wrap-up and Return to Dallas** ***approximately 4:30***

Attire: *Field clothes, long pants, close toed shoes*

For more information or registration forms, please contact the Texas Forest Service at 817-980-2958 or jandavis@tfs.tamu.edu

Pre-registration is required and must be received by September 28.

Wetland/BMP Coordinating Committee Meeting
Tour Agenda

March 8th and 9th
Longview, Texas

March 8th

1:15 p.m. River Venture Group Tract – Gregg County

Topics: *Lee Davis will lead the discussion at this site. The topics will include WRP and hardwood management.*

2:15 p.m. Smith Tract – Gregg County

Topics: *Jacob Donellan will lead the discussion at this site. Topics will include windrowing, stream crossings, SMZs, ephemeral drains, BMP inspections and road problems.*

3:30 p.m. Whitaker Tract – Harrison County

Topics: *Bird Forestry will lead the discussion at this site. Topics will include mulching; advantages/disadvantages, future applications and options for landowners.*

4:30 p.m. Jones Tract – Gregg County

Topics: *Jacob Donellan will lead the discussion at this site. Topics will include stream crossings, SMZs, cost of BMP compliance for private landowners.*

March 9th

8:30 a.m. Rupee Tract – Harrison County

Topics: *Bottomland hardwood site preparation, bedding and SMZs*

9:30 a.m. International Paper Tract – Marion County

Topics: *Matt Eirvin will lead the discussion at this site. Topics will include first thinnings, ice damage, SFI impacts, Green certification.*

2002 Water Quality/BMP Coordinating Committee Meeting

About the Conference

The conference is an informative program focusing on the needs to manage Texas' forest for water quality. Representatives from federal and state agencies as well as industry and non-industrial private forest representatives and will be present to discuss issues related to protecting and ensuring water quality. This year's meeting will include an overview meeting the morning of March 27th. A field tour of several sites is available on the afternoon of the 27th and morning of the 28th.

Agenda

March 27th

10:00 a.m. **Introduction & Welcome**
Jacob Donellan, Texas Forest Service

10:15 **Agencies Overview**
All representatives present will be allowed ample time to give an overview of all current issues within their respective agencies related to water quality.

1:00 p.m. **Lunch**
Vans will provide transportation to local restaurants.

2:00 **Field Tour**
Sites will include a USFS site, State Forest site, & Industry forest site. Transportation & refreshments provided.

5:00 **Return to Hotel**

6:00 **Social – in the meeting room**
The social is an opportunity for everyone to mix informally and network.

TBA **Evening Dinner**
Vans will provide transportation to local restaurants.

March 28th

8:00 a.m. **Field Tour**
We will leave from the hotel lobby at 8:10. Sites will include Aerial Herbicide Application site. Field tour will end around 11:30 or 12:00

Accommodations

A block of rooms is reserved at the Comfort Inn; mention the Texas Forest Service group for a special rate of $55 per night. For motel reservations contact: Comfort Inn, 1115 League Line Road, Conroe, TX 77304, the *toll-free* number is 1-888-700-7181 or (936) 890-2811. Please make your reservations before **March 19th**.

Pre-registration / Registration

Pre-registration is not required for the meeting but is available by mailing this form or a copy with your registration fee of $25 to the Texas Forest Service office in Jefferson. Please pre-register before **March 15th** or you can register at the door March 27th. Receipts will be available and provided at the meeting.

Registration Form

Detach and mail registration form to:

Jacob Donellan
PO Box 268
Jefferson, TX 75657-0268

For additional information:
(903) 665-7400
jdonellan@tfs.tamu.edu

NAME_____

ADDRESS_____

CITY _____STATE_____ZIP_____

AGENCY/COMPANY_____

E-MAIL_____

PHONE_____

Make checks payable to Texas Forest Service

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail carraway@LCC.net *July 1999*

Reforestation Bill Passed!!!

The Texas Reforestation and Conservation Act was passed by the Texas legislature and has recently been signed by Governor Bush. The bill recognizes forestry as an agricultural crop. It also offers landowners tax incentives to reforest their lands following a harvesting operation, and it provides tax incentives to landowners who protect water quality and critical wildlife habitat.

The three significant changes landowners and timber producers can expect to see from this legislation are:

1) Private landowners and logging contractors will receive sales tax exemption when purchasing seedlings, fertilizers, chemicals, harvesting equipment, and inventories of personal property.

2) Private landowners who choose to reforest their lands following a timber harvest will receive a 50% reduction on their timber productivity tax appraisal for the first 10 years of the timber rotation.

3) Private landowners who have established designated Streamside Management Zones, Aesthetic Management Zones, or Wildlife Zones will also receive a 50% reduction on their timber productivity tax appraisal for these acres.

These provisions are expected to take effect on September 1, 1999, with the exception of the sales tax exemptions, which will be phased in beginning in the year 2001 through the year 2008.★

For more information: Texas Forestry Association, (409) 632-8733

Inside This Issue . . .

Certified Forest Stewards

This April, the Texas Forest Service honored three North Central Texas landowners with the Certified Forest Steward Award. Jan Davis, Staff Forester with the TFS, nominated these participants "because they have successfully implemented their Forest Stewardship Plan within one particularly hot and dry year and they have been strong supporters of the program."

John MacLean and his ranch manager, Tucker Bill, who are both from Johnson County, were awarded a certificate and "Forest Stewardship" sign at the April 6th Johnson County Agri-Business breakfast held in Cleburne. Mr. MacLean commented that "Tucker Bill has hand-watered and done everything to keep those trees alive except name each one of them."

. . . they are very deserving of this recognition.

Parker County's Kim Livingston and Foster Clayton, who both live near Weatherford, were honored and awarded their certificates and property signs on Arbor Day at the April 30th City of Weatherford Mayor Proclamation. Jan Davis commented at the ceremony that "Ms. Livingston was able to keep more than 75% of her 400' windbreak and wildlife corridor tree planting alive last summer during drought conditions and the worst grasshopper infestation I have ever seen." Ms. Clayton has battled oak wilt on her property for six years. With numerous trenching attempts through another TFS program known as the Oak Wilt Suppression Project, she as prevented the disease from killing hundreds of trees. She has also developed a 2-acre tree planting which will serve as a windbreak, wildlife food plot, and vegetative screen.

Because of the time, energy, and finances these landowners have invested into performing good stewardship practices on their property, they are very deserving of this recognition.★

For more information: Burl Carraway, Forest Stewardship Coordinator, Texas Forest Service, (409) 639-8180; or carraway@LCC.net

Supplemental Food Plots for Wildlife

Supplemental food plots provide a highly nutritious food source that can be beneficial to many species of wildlife. The establishment of locally adapted annual (spring and fall) or perennial forages on suitable soils provides supplemental foods and cover during critical periods of the year. During the dry summer months, nutrient levels in native vegetation decrease, making it the most stressful time of the year for wildlife, especially for white-tailed deer. High-protein supplemental forage can help increase fawn survival, increase body weights, and improve antler development.

The shape, size, location, and percentage of the total land area should be based on the requirements for the target species (e.g. 2-5% of area for white-tailed deer). A minimum of 1% of the acreage should be planted in both winter and summer food plots.

The forage quality of native vegetation can be greatly improved by fertilizing preferred browse plants such as honeysuckle, greenbriar, and blackberry. Fertilization can extend the growing season. By applying a balanced fertilizer in the spring and then applying ammonium nitrate or a high nitrogen fertilizer at 60-day intervals during the growing season, palatability and protein levels can be increased.

Food plots should not be considered a cure-all to correct habitat deficiencies. Plantings should be considered as supplements to well-managed natural habitats. Supplemental feeding should always be combined with population management, or the resulting artificially higher numbers of animals will have a negative impact on native plants. Consult with the NRCS, TAEX, TPWD, and local seed dealers for food plot mixtures suitable for your area.★

For more information: Scotty Parsons, TPWD, (409) 569-1632

Data Collection for Deer Management

One of the first steps in any successful deer management program is to collect data about the property's deer herd.

Let's Talk Numbers

When biologists talk about deer numbers, they refer to densities in terms of acres per deer. The most common technique to estimate the density of a deer herd is the spotlight survey. Spotlight surveys should be begin in mid-July and should be completed by mid-September. At this time of the year, bucks have identifiable antlers and fawns are old enough to be up and moving around, yet still small enough to be recognized as fawns.

Track counts are another method to monitor deer population trends over time. A track count is conducted by locating a stretch of sandy road and smoothing old tracks by raking or dragging the road, usually early in the morning. The count is conducted 24 hours after the road is dragged, and the number of deer that have crossed the road is counted. Each one-mile section of road equals 640 acres being sampled. For instance, if 20 deer crossed the one-mile section of road, this would equate to one deer per 32 acres (640 acres divided by 20 deer).

These two types of surveys should be conducted two or three times between mid-July and mid-September, taking the average. Surveys should be repeated each year during the same time of year along the same route. Surveys do not give an absolute measure of the deer density, but will provide trend data to determine if the deer herd is increasing, decreasing, or remaining stable.

Herd Condition Measurements

The best method to determine the condition of the animals is through harvest data. Data collected from all harvested animals should include date of harvest, age, field dressed weight, sex, antler measurements, and lactation. A biologist can look at the weights and antler measurements by age class and determine the condition of the deer herd. Reproductive success can be estimated by determining the percent of harvested does that were producing milk (lactating) when harvested.

Additionally, observation data should be collected to determine the buck-to-doe ratio and the doe-to-fawn ratio. Observation data should be collected throughout the hunting season. Any incidental deer sightings from August through October should also be recorded.★

For more information: Rick Larkin, Technical Guidance Biologist, Texas Parks & Wildlife Dept. (409) 560-3750; or your local TPWD biologist

Bits · and · Pieces

THE FOLLOWING ARE COUNTY LANDOWNER MEETINGS THAT WILL DEAL WITH STEWARDSHIP ISSUES:

Lost Pines Forest Landowner meeting/Texas Tree Farmer of the Year tour – Sept. 25, 1999, in Bastrop. For more information, call (409) 632-8733 (Texas Forestry Association, Lufkin).

Tyler CLOA – Oct. 16, 1999, in Colmesneil. For more information, call (409) 283-3785 (Texas Forest Service, Woodville).

Cherokee-Henderson/Anderson-Freestone CLOA – Oct. 30, 1999, in Jacksonville. For more information, call (903) 586-7545 (Texas Forest Service, Jacksonville)

Jasper-Newton CLOA – Nov. 20, 1999, in Jasper. For more information, call (409) 384-9427 (Texas Forest Service, Jasper).

✤To read about Texas Parks & Wildlife Department's 1999 Lone Star Steward award winners, visit their web site at www.tpwd.state.tx.us and click on *Conservation*, then on *Regional Landowners Honored for Exemplary Stewardship.*

✤Interested in learning more about oak wilt? Visit the TFS web site at http://txforestservice.tamu.edu and click on *Insects & Disease*, then on *Oak Wilt*; or call the Oak Wilt Hotline at (512) 473-3517.

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER:

Ron Hufford, TFA, Lufkin, TX
Jan Davis, TFS, Fort Worth, TX
Scotty Parsons, TPWD, Nacogdoches, TX
Rick Larkin, TPWD, Nacogdoches, TX
Mark Duff, TFS, Kerrville, TX
Susan Stutts, TFA, Lufkin, TX

Hill Country Shade Trees

Below is a list of eight shade trees that will grow well in the Texas Hill Country. Included are their attributes and drawbacks, if any.

Bald Cypress (*Taxodium distichum*) – prefers low areas that receive abundant water. Has fast growth rate, feathery foliage, nice form, fall color. Its "knees" can become a problem with lawnmowers.

Bigtooth Maple (*Acer grandidentatum*) – fast growing, drought hardy, provides excellent fall color. Its bark is easily damaged and the tree tends to branch close to the ground.

Bur Oak (*Quercus macrocarpa*) – not particular as to site, very hardy, tolerates drought, highly resistant to oak wilt, has a thick, corky bark.

Cedar Elm (*Ulmus crassifolia*) – tolerates a wide variety of sites, grows reasonably fast, requires little care, tolerates drought and seasonably wet areas, has yellow foliage in the fall. Under severe stress, is subject to red spider mite infestations. Is highly resistant to Dutch Elm disease.

Chinese Pistache (*Pisticia chinensis*) – fast growing, virtually pest and disease free, drought resistant, has brilliant fall color. Young trees look awkward but eventually develop a nice rounded crown.

Chinkapin Oak (*Quercus muhlenbergii*) – moderate to fast growth, attractive leaf, handsome form, high resistance to oak wilt.

Lacey Oak (*Quercus laceyi*) – drought resistant, highly resistant to oak wilt, is attractive due to its bluish leaves. Occasionally has good fall color.

Live Oak (*Quercus fusiformes*) – wide crown spread, hardy, long-lived, semi-evergreen. Can grown on virtually any site except very wet or very dry areas. Susceptible to oak wilt. Capable of root sprouting.

There are many other trees that will grow well in the Hill Country. A complete list of trees is available on the TFS homepage. Species are placed on this list due to hardiness, color, form, disease resistance, or growth rate. Consult with a qualified tree care professional for help in choosing the best possible tree for your site.★

For more information: Mark Duff or Robert Edmonson, Texas Forest Service, (830) 257-7744; or tfskerr@ktc.com

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Editorial Board
- Susan Baggett, NRCS, Huntsville, Texas
- Clint Cross, TFS, Lampasas, Texas
- Scotty Parsons, TPWD, Nacogdoches, Texas
- Larry Schaapveld, TFS, Fort Worth, Texas
- Pete Smith, TFS, College Station, Texas

Prescribed Burning Bill

The Prescribed Burning Bill (HB 2599) was passed this legislative session. It is due to take effect September 1, 1999. This legislation:

- Establishes a Prescribed Burning Board within the Texas Dept. of Agriculture and an advisory board.
- Establishes a recognized training program for persons wanting to become Prescribed Burn Managers. Must be renewed every five years.
- Does not limit landowners' rights to conduct burns on their property.
- Establishes a minimum level of liability of $1 million, and Prescribed Burn Managers must carry a minimum of $1 million in liability insurance.
- Relieves landowners from liability if using a trained Prescribed Burn Manager with insurance.★

For more information: www.capitol.state.tx.us

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- Pete Smith, TFS, College Station, Texas

RCW Safe Harbor Program

The Safe Harbor Program of the Regional Habitat Conservation Plan (HCP) for the red-cockaded woodpecker on private lands in East Texas is under way. Champion International and Temple-Inland were the first to enroll. A Houston Co. forest landowner has also signed up with the program.

Safe Harbor is a voluntary program that encourages landowners to manage their property in ways that could produce habitat suitable for RCW without fear of additional responsibilities under the Endangered Species Act. Landowners with potential habitat can enroll in this program whether RCWs are present or not.

Forest landowners and land managers with clients who may qualify for this program are urged to contact Donna Work (TFS) or Ricky Maxey (TPWD). ★

For more information: TFS, (409) 639-8180 or *dmw@inu.net*; or TPWD, (409) 564-0234 or *rmaxey@sfasu.ed*

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail barraway@LCC.net *October 1999*

New Project Has Begun

September 1, 1999, marked the beginning of a new EPA-funded public education program by the Best Management Practices Project of the Texas Forest Service. The target area of this three-year program covers the Cypress Creek Basin. Twelve counties, in part or whole, are a part of this watershed.

The BMP Project plans to use radio, television, newsletters, displays, demonstrations, workshops, presentations to civic groups, and other means to get the message out of how forest landowners in this area can protect water quality. Goals of this project include: 1) implement forestry BMPs in the Cypress Creek Basin, 2) coordinate efforts with other agencies and entities to reduce non-point source pollution and participate in the Total Maximum Daily Load (TMDL) development process, 3) provide BMP education for forest landowners, and 4) enroll forest landowners in forestry water quality management plans. Statewide BMP compliance evaluations will also be conducted.

The BMPs implemented during this project will result in reduced risks to water quality from silvicultural NPS pollution. The planned educational efforts should result in increased compliance with BMPs, which will also contribute to improved water quality. Forest landowners operating under water quality management plans will result in further reductions in sedimentation. Expectations are for a 15% increase in the amount of sediment prevented from reaching streams. ★

For more information: TFS BMP Project, (409) 639-8180

Inside This Issue . . .

Pounce on Those Weevils!

As you make preparations to replant harvested tracts this coming winter and spring, be aware that damage caused by reproduction weevils can mean the difference between acceptable first-year seedling survival and having to replant again the following year. The weevils feed on the roots and stems of newly-planted pine seedlings, often girdling and killing them.

Research has determined that weevils are most likely to be a problem on tracts harvested after July and planted within nine months, particularly those receiving little or no site preparation. Weevils tend to breed in fresh stumps and slash material and the new generation of weevils emerges and attacks pine seedlings in the spring and early summer. Sites harvested prior to August and planted the following winter and/or having received intensive site prep are seldom affected by the weevils.

. . . Pounce® treatment reduced weevil-caused seedling mortality by 71%.

To reforest moderate to high hazard sites (those harvested in the fall and winter, just prior to planting), landowners should consider planting pine seedlings treated with Pounce®. Pounce® is a pyrethroid insecticide that protects newly-planted pine seedlings from damage or loss to reproduction weevils. The insecticide is applied to seedlings in the nursery just prior to lifting. Evaluations of tracts planted with either Pounce®-treated or untreated seedlings in 1998 showed that the Pounce® treatment reduced weevil-caused seedling mortality by 71%. It is recommended that Pounce®-treated seedlings be planted from mid-February to early March. This will assure that the insecticide remains at levels sufficient to kill emerging weevils throughout the spring and early summer.

Orders for Pounce®-treated seedlings for this planting season need to be placed by mid-January 2000 at TFS's Indian Mound Nursery in Alto, (409) 858-4202. ★

For more information: Don Grosman, TFS, (409) 639-8170

The Longleaf Alliance

Longleaf pine ecosystems dominated a reported 90 million acres of the southeast at the time of early settlement. Today, less than three million acres of longleaf still exist in the southeastern United States.

From a timber point of view, longleaf pine is superior to other southern pines in the production of high value wood products. Its growth form, with typically high form classes and straight boles, results in the production of a high percentage of poles, pilings, and high quality logs. Longleaf is also resistant to many diseases, insects, and other damaging agents common to other southern pine. It is seldom damaged by fusiform rust, resists attack by southern pine beetles, and is very tolerant of fire throughout most of its life cycle.

The Longleaf Alliance proposes to develop cooperative programs that promote the ecological and economic values of longleaf ecosystems. Its purpose is to coordinate efforts to restore longleaf and its accompanying ecosystem on lands where they are compatible with the objectives of the landowner. In Texas, there are currently three consulting forester firms and four individuals that are members of the Alliance.

Many foresters and landowners are planting container-grown longleaf seedlings. They are easier and faster to plant. Also, increased survival and growth rates have been realized from planting container-grown seedlings. The TFS raises some bareroot longleaf seedlings. No one grows container longleaf in Texas. Most container seedlings would probably be imported from one of the nurseries in Alabama. These nurseries are sold out for 1999. To acquire the Longleaf Nursery List, which is a comprehensive listing of all the nurseries that grow longleaf pine, call (334) 222-7779.★

For more information: www.forestry.auburn.edu/la/

Texas Big Tree Registry

The Texas Big Tree Registry is a listing of the largest known tree of each species in the state. The Texas Forest Service has maintained the registry--containing over 230 state champions--for more than 30 years. Texas ranks as one of the top three states in the National Registry with 76 national champions or co-champions.

How Do They Measure Up?

The trees are compared by a set of index "value points," determined by circumference, height, and average crown spread. Trees with the highest total index points are the champions. Those of the same species that are within five points of the champ are considered co-champions.

The purpose of the Big Tree Registry is to locate and recognize the largest known trees in Texas (and sometimes the country), obtain tree owners' cooperation in protecting and preserving these treasures, and stimulate interest in and a greater appreciation for the value of trees. Be on the lookout for a new champion! It may be in your backyard, the neighbor's yard, in a city park, in the middle of the forest, or out in a swamp or ranch pasture. Big Trees are found all over Texas. Special interest is taken in locating state and national champions for several species that are not currently represented in the Registry. For a nomination form and instructions, you can contact: Nick Harrison, Texas Big Tree Coordinator, Texas Forest Service, 302 N. Willis St. #15, Abilene, TX 79603-6922; or Katy Rachui, TFS Headquarters, College Station, (409) 458-6600, k-rachui@tamu.edu

Big Tree Trivia

Both of the two largest trees in the Texas Registry are common bald cypress (*Taxodium distichum*). One is in Hardin County, with a circumference of 417 inches, height of 116 feet, and average crown spread of 60 feet, for a total of 548 points. The co-champion, located in Real County, has 420 inches in circumference, 101 feet in height, and 105 feet in average crown spread, for a total of 547 points.

The Texas tree with the largest circumference is a live oak (*Quercus virginiana*) of 422 inches. It is located at Goose Island State Park in Aransas County.

The tallest Texas champion is an overcup oak (Quercus lyrata) located in Wood County, towering at 150 feet.★

For more information: Nick Harrison, TFS, (915) 676-5827, tfsabiln@swbell.net

Bits and Pieces

THE FOLLOWING ARE COUNTY LANDOWNER MEETINGS THAT WILL DEAL WITH STEWARDSHIP ISSUES:

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❖ The Longleaf Alliance is open for membership to individuals, private landowners, organizations, industries, and governmental agencies. For membership information, contact Mark Hainds at: Solon Dixon Forestry Education Center, Route 7 Box 131, Andalusia, AL 36420; or (334) 222-7779; or hainds@alaweb.com.

❖ The Texas and National Champion pecan, located in Parker County, has an average crown spread of 159 feet.

❖ Hidalgo Co. has the most champion trees in Texas with 36; Brewster Co. is second with 17.

❖ Digital Orthophoto Quadrangles (DOQs) can be downloaded from the Texas Natural Resources Information System (TNRIS) web site, www.tnris.state.tx.us. Click on *Digital Data*, then *DOQs*.

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER:

Don Grosman, TFS, Forest Pest Management, Lufkin, TX
Mark Hainds, Rett Johnson, Dean Gjerstad, The Longleaf Alliance, Andalusia, AL & Auburn University, AL
Betty Rogers, Texas Urban Forestry Council, Austin, TX
Nick Harrison, TFS, Abilene, TX
Dr. Dave Creech, SFASU, Nacogdoches, TX

Native Trees for East Texas

The following native trees are suggested for East Texas landscaping. The list is based on observations at Stephen F. Austin State University's Mast Arboretum.

Red Maple (*Acer rubrum*) – bright red flowers in very early spring; brilliant fall color.

Sugar Maple (*Acer saccharum*) – good fall color and shade. Sensitive to injury from lawn equipment.

Deciduous Holly (*Ilex decidua*) – orange to red berries; dark green leaves change to yellow in fall.

American Holly (*Ilex opaca*) – evergreen, dense foliage; red berries in late fall on fruiting selections. Few pests; extremely durable. Slow growing.

Bluejack Oak (*Quercus incana*) – small, nicely shaped tree for poor sandy sites.

Swamp Chestnut Oak (*Quercus michauxii*) – grayish, flaky bark; heavy mast producer for poorly drained sites. Good fall color.

Honey Locust (*Gleditsia triacanthos*) – bright green leaves change to yellow in fall; fragrant flower. Excellent lawn tree for filtered shade.

Southern Magnolia (*Magnolia grandiflora*) – lustrous dark green leaves; red fruit; creamy white, fragrant flower. Needs room to develop.

Fringe Tree (*Chionanthus virginicus*) – dark green leaves; white fragrant flower. Good in groups, outstanding in flower. Does well in cities due to it's tolerance to air pollution.

Blueberry Hawthorn (*Crataegus brachyacantha*) – extremely showy when flowering (white). Susceptible to rust.

Mexican Plum (*Prunus mexicana*) – white flowers. Fruit is edible and sweet, eaten by many birds and animals.

Two-wing Silver Bell (*Halesia diptera*) – beautiful, small, rounded tree, usually multiple-stemmed or low branched.

A more extensive and detailed listing can be found at the SFASU Native Plant Center's web site.★

For more information: SFA Mast Arboretum, www.sfasu.edu/ag/arboretum/np/native%20woody.htm

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- Larry Schaapveld, TFS, Fort Worth, Texas
- Pete Smith, TFS, College Station, Texas

EPA's Federal Register

The address for EPA's Federal Register is: www.epa.gov/fedrgstr/. Here, you can find selected Federal Register documents issued from the EPA or other federal agencies that concern environmentally related issues. Documents from October 1994 to the present can be viewed. Materials at this site include:

- Environmentally related meeting notices
- Material relating to the Scientific Advisory Board
- Environmental impact statements
- Endangered species documents
- Office of Air and Radiation documents
- Office of Pesticide Program documents
- Office of Water documents
- Office of Pollution Prevention and Toxic Substances documents★

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail carraway@LCC.net ***January 2000***

Proposed TMDL Ruling

On August 23, 1999, the EPA announced its intentions to require federal point source discharge permits for forestry activities under their proposed revisions to the water quality regulations known as the Total Maximum Daily Load (TMDL) program. Stating that the agency has the discretion to redefine certain forestry activities as point sources under the Clean Water Act, EPA claims that forest management is a significant contributor and threat to water quality protection.

What's at Stake

EPA's proposed rule will greatly affect both forest management and mill operations, adding increased red tape, expense and litigation for all sectors of the industry. Forest landowners will likely be subject to permit requirements, EPA consultation and significant administrative delays before conducting practically all silvicultural activities. Expansion of mill operations (or construction of new mills) will also face increased costs and regulatory hurdles.

Comment Period Extended

Congress extended the comment period for the EPA's proposed new rules on the TMDL program under the Clean Water Act. Originally, EPA had sought a limited comment period, which would have expired on October 22, 1999; Congressional intervention has extended that period to January 20, 2000.★

For more information: Texas Forestry Association, (409) 632-8733

Inside This Issue . . .

BMP Compliance Results

A Best Management Practices monitoring program, funded through an FY96 Environmental Protection Agency (EPA) 319(h) grant, evaluated the level of compliance with voluntary forestry BMPs. A total of 150 sites on which silvicultural activities occurred were evaluated. These sites were a representative sample of the forestry activities that occurred in East Texas between June 3, 1998 and August 31, 1999.

Overall BMP compliance of the sites monitored was 88.4%. Compliance with BMPs varied by forest land ownership, type of operation, landowner and logging contractor knowledge of BMPs, level of forester involvement, and other site factors. Generally, compliance was highest on sites owned by USDA Forest Service (97.9%) or forest industry (94.2%). Compliance was generally lowest on sites owned by nonindustrial private forest landowners (80.9%).

Major deficiencies noted during the evaluations were lack of SMZs where needed and water quality impacts from stream crossings.

. . . a positive correlation exists between landowner familiarity with BMPs and BMP compliance.

NIPF landowners are generally less intensely involved in forest management, only infrequently sell timber, may be absentee, and may lack technical knowledge necessary to implement BMPs. However, a positive correlation exists between landowner familiarity with BMPs and BMP compliance. Positive correlations between forester and logging contractor familiarity with BMPs and BMP compliance demonstrates the need for NIPF landowners to involve a forester and a knowledgeable logging contractor to ensure BMP compliance. Concentrating educational efforts on NIPF landowners appears to be the best method for minimizing water quality impacts from silvicultural operations.★

For more information: Larry Clendenen, TFS, (409) 639-8180

Wetlands Project Site Registry

The ***voluntary*** Wetlands Project Site Registry functions as "want ads" to link interested property owners with those who need or want to restore wetlands. Its purpose is to identify potential sites and funding for wetlands restoration.

Wetlands restoration and enhancement are generally considered highest priority as mitigation for environmental impacts, such as those caused by development projects. "Restoration" refers to areas that were once wetlands, but no longer resemble wetlands (e.g. agricultural lands near rivers or streams). "Enhancement" refers to existing wetlands whose functions have been degraded. Sites with the following characteristics are preferred: previously drained areas where ground or surface water has been removed by ditching or levees; low-lying areas that have been filled; sites adjacent to existing wetlands; areas next to rivers and streams; historically forested bottomland areas; and other areas with wetlands development potential.

Property owners incur no costs, and property ownership remains in the hands of the landowner. Registration does not obligate the owner to create wetlands; the landowner can withdraw unrestored land from the registry at any time. Landowners interested in creating mitigation sites on their property can arrange mutually-beneficial financial agreements with the applicant.

If you are interested, please contact Texas Parks and Wildlife. Department staff will contact you to discuss your property and conservation goals, after which you can choose to be placed on the registry. Entities seeking restoration sites will contact TPWD, who will then notify you if a potential match is found.★

For more information: Julie Anderson, TPWD, (512) 389-4328

Pine Straw Baling - Extra Revenue for Timber Landowners

Baled pine straw is being marketed as ground cover, mulch and plant nursery soil amendment. Southwide, the demand for pine straw far exceeds the supply. This could produce an alternative income for timber growers.

Mulch to Consider

Longleaf and slash pines, with their longer needles, produce the preferred straw. The longer straw makes ideal gardening and landscaping mulch since it protects the soil and allows water penetration, but does not wash, blow or float away while eventually decomposing into a soil conditioner. Other advantages of pine straw are it adds color and texture, costs less than other mulches, is easy to apply, and is relatively free of insect and disease pests. Loblolly and shortleaf pine needles are harder to bale and transport. However, they could be used if packaged so the shorter-needled bales hold together. They could also be bagged or processed as a component of commercially packaged soil conditioners.

The pine straw industry in Texas is in its infancy. There is a great demand for pine straw bales in nurseries in the major cities in Texas. Other states currently active in the industry include Louisiana, Arkansas, North Carolina, Georgia, and Florida.

A standard hay rake and baler is used. Bales weigh 35 to 50 pounds. A landowner can lease his/her land to a baler for $0.50 to $1.00 or more per bale, and at 75 to 100 bales per acre on loblolly pine, the landowner could realize a profit of up to $100 per acre per year.

Site Preparation and Stand Management

Managing for pine straw requires intensive management as understory plants need to be controlled. This could include using herbicides, brush removal tools and prescribed burning. Large limbs and most of the twigs and cones on the forest floor need to be removed.

To avoid long-term negative effects of removing pine straw from the forest floor, it is recommended that straw harvest on a site only occur 3 out of 4 years. Replacement of lost nutrients by fertilizing may be necessary.

Pine straw management can provide income for the forest landowner even before timber is harvested. Sites managed for pine straw baling have a park-like appearance and are easier to log. After all the timber is harvested, regeneration costs are greatly reduced because of the lack of competition.★

For more information: Ken Rogers, (409) 639-8180; k.rogers@inu.net

Bits · and · Pieces

The following is an upcoming County Landowner meeting that will deal with Stewardship issues:

Harrison CFLOA – Feb. 12, 2000, in Marshall. For more information, call (903) 938-8712 (Texas Forest Service, Marshall).

Continuing Education for Logging Professionals:

2000 BMP Workshops

Jan. 21 & 22	Jefferson
Feb. 18 & 19	Lufkin
Mar. 24 & 25	Jefferson

2000 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

Jan. 15	Lufkin
Feb. 5	Atlanta

For registration, call TFA after 1:00 p.m. at (409) 632-8733

✤ Many land and wildlife conservation opportunities, including financial assistance, are available for private lands. Some options are discussed in these TPWD publications:
- *A Wetlands Assistance Guide for Landowners*
- *Conservation Easements: A Guide for Texas Landowners.*

✤ A listing of certified arborists is available from the Texas Chapter of the International Society of Arborists web page at http://www.trees-isa.org.

We wish to thank the following contributors to this quarter's newsletter:

Ron Hufford, Susan Stutts, TFA, Lufkin, TX
Larry Clendenen, TFS, BMP Project, Lufkin, TX
Julie Anderson, TPWD, Austin, TX
Ken Rogers, TFS, FPL, Lufkin, TX
John Giedraitis, TFS, College Station, TX
Katy Rachul, TFS, College Station, TX

Drought and Urban Trees

For the past three years, most of Texas has been gripped by mild to severe drought conditions that continue to exist across the entire central region of the state. Weather forecasters are predicting that these dry conditions will continue through this winter.

Young trees and old trees are especially sensitive to drought. When trees are stressed by drought their defenses are weaker and they become more susceptible to weather extremes, diseases and insects that are normally not serious. Repeated stresses may cause a tree to slowly decline over a period of years.

Water

- Newly planted trees need more frequent watering than older trees that have established root systems. If the soil feels moist, don't water; too much water for a young tree is just as bad as not enough.
- Water established trees once a month during normal conditions and twice a month when winter rainfall is limited.
- Evergreen trees such as pines and junipers may require additional water during cold, windy periods to prevent the needles from drying out.
- To water a tree, turn the hose to a slow, gradual trickle. After soaking one section, move the hose to another until all of the soil area under the canopy of the tree has been soaked with about two inches of water.

Mulch

- It is best to eliminate as much grass as you can and replace it with mulch out to the tips of the branches. At least mulch a few feet from the trunk.
- Organic mulches, applied three to four inches deep, will preserve soil moisture, improve the soil's air circulation, keep soil temperatures more moderate, reduce weed problems, and provide nutrients as it decomposes.

Fertilize

- This winter apply a slow release form of nitrogen at the rate of about one pound of nitrogen per 1000 feet of open area under the tree.★

For more information: http://txforestservice.tamu.edu/tfshome/u&c

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- Mark Duff, TFS, Kerrville, Texas
- Kathy Flannery, TFS, Marshall, Texas
- Jim Rooni, TFS, Austin, Texas

A Book to Check Out

An excellent book about hands-on forestry is James R. Fazio's *The Woodland Steward – A Practical Guide to the Management of Small Private Forests.* It is down-to-earth and well written in layman's terms; a gold mine of information and a two-time award-winning publication. Chapter titles include:

- Trees and Your Future
- Knowing Your Land
- Taking Inventory
- Planning
- Protection
- The Science and Art of Growing a Forest
- Planting and Improving the Woodlot
- Harvesting
- Woodlands for Wildlife
- Christmas Trees

This highly recommended book can be purchased for $14.95 from the Forest Shop, 2981 Ford St. Ext., Unit #151, Ogdensburg, NY 13669-4491.★

For more information: (613) 233-4283 or *www.forestshop.com*

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail carraway@LCC.net *April 2000*

Predicting SPB Infestations

For the first time since 1981, no infestations of the South's worst forest pest, the southern pine beetle (SPB), were detected in East Texas in 1999.

Interestingly, the extremely low SPB infestation levels in 1999 were forecasted by the Texas Forest Service (TFS) early last spring. TFS principal entomologist Dr. Ron Billings has developed and implemented an effective system for predicting SPB infestation trends and levels. The system involves use of attractant-baited traps placed in pine forests in early spring. The traps sample dispersing populations of two different insects: SPB and its natural predator, the checkered or clerid beetle. The average numbers of SPB per day, coupled with the ratio of SPB to predators, provide information required to predict whether SPB trends will be increasing, static, or declining from the year before.

The system has proven so practical and reliable that it has been adopted by other state and federal forestry agencies across the South. Each year, Dr. Billings and his staff compile the trap data submitted by all southern states and make predictions for each trapping locality. Predictions have been correct 75-85% of the time.

Will SPB activity increase in Texas in 2000? The SPB traps were placed in selected counties throughout East Texas during the first week of March. Results will be available on the TFS web page, probably by mid-April, at http://txforestservice.tamu.edu/.★

For more information: Dr. Ron Billings, TFS, (936) 639-8170

Inside This Issue . . .

Fire Ants-Continuing Battle

The red imported fire ant, *Solenopsis invicta*, is an introduced species that arrived in Mobile, Alabama, from South America around the 1920's. This species continues to spread into areas of North America with mild climates and adequate moisture and food.

Wings, Trains and Automobiles

The fire ant reached Texas during the 1950's and has spread steadily across the state. The ants disperse naturally through mating flights, mass movement of colonies or by floating to new locations in floodwater. Fire ants can travel long distances when newly-mated queens land in cars, trucks or trains. Shipments of nursery stock or soil from an infested area may relocate entire colonies or nests.

New Ways of Looking at an Old Problem

Attempts to eradicate the fire ant in the 1960's and 1970's used chemicals that destroyed native ant species. Because of this, eradication attempts may actually have aided the spread of fire ants. Native ants compete with red imported fire ants and prey on newly-mated queens. Chemicals provide only temporary control of fire ants and must be reapplied periodically.

The Texas Imported Fire Ant Research and Management Plan was funded by the Texas legislature in 1997 and has provided $2.5 million annually to support a statewide research, regulatory and Extension education effort to eliminate the imported fire ant.

Sustainable solutions for fire ant problems are being sought that include biological control and genetic methods. The parasitic phorid flies are being investigated and released by University of Texas researchers, while Texas Tech researchers are investigating a fungus called *Beauveria bassiana* for use as ant bait. Ag Extension researchers are focused on a disease of the ant, *Thelohania,* and a native parasite, a strepsipteran.★

For more information: *http://fireant.tamu.edu*

Celebrating Arbor Day

In 1872, the first Arbor Day was observed in Nebraska. At that time, only 3% of the state was covered in trees. In 1889, Temple was the first Texas community to celebrate Arbor Day. A statewide resolution was passed the following year declaring February 22 as the official Texas Arbor Day. In 1989, the legislature passed a resolution moving Texas Arbor Day to the last Friday in April to align with the traditionally observed national Arbor Day. Each year the state celebration is held in a different city to help reach various audiences.

This year Arbor Day falls on April 28, with the state celebration being held in Euless, Texas. Euless, located between Dallas and Fort Worth, is infamous for "Arbor Daze," the largest Arbor Day festival in the country. The purpose of Arbor Day is to recognize the importance of trees to the community and to encourage citizens to plant more. There are numerous activities schools and communities can participate in to celebrate Arbor Day.★

For more information: www.arborday.org

Basic Terminology of Estate and Gift Taxation

Federal Estate Tax – Tax is imposed on the value of all property owned or controlled by a descendant on date of death.

Gross Estate – All property a descendant owned (including value of home, personal effects, investments, death benefits under retirement plans, life insurance proceeds, etc.). In a community property state such as Texas, the gross estate includes that descendant's separate property and his or her half of any community property.

Taxable Estate – "Gross estate" less deductions for such items as debts and administrative expenses, charitable deductions, and the "unlimited marital deduction."

Unified Credit – The estate of each person who dies in 2000 is entitled to a credit of $220,550 against gross estate tax. The gross estate tax on a taxable estate of $675,000 is exactly equal to the unified credit. Therefore, $675,000 is the amount of property which may pass to any beneficiary free of estate tax and is called the "exemption equivalent amount."

Unlimited Marital Deduction – A married person may leave any amount of property outright to a surviving spouse, or in a special "qualifying" trust (known as a "QTIP Trust") for the spouse's benefit, free of estate tax in the estate of the first spouse to die.

Estate Tax Rates – Begin at 37% and maximize at 55%. The "unified credit" is phased out gradually for estates over $10,000,000.

Texas Inheritance Tax – In Texas, the inheritance tax is exactly equal to the maximum credit allowable against the federal estate tax for state death taxes paid. In effect, the Executor calculates the federal estate tax, the pays part to Texas.

Federal Gift Tax – Tax is imposed upon the transfer of property for less than full consideration. No gift tax is imposed until all taxable gifts made during lifetime exceed the "exemption equivalent." However, all taxable gifts are included in the "gross estate" at death and are taxed at date of gift values, along with other estate assets. Each person can give up to $10,000 per donee each year to an unlimited number of people without having made a taxable gift. Certain gifts to trusts also qualify. There is also an unlimited gift tax exclusion for direct payments of tuition expenses or to providers of medical care.

Federal Income Tax – Tax is imposed on income (salary, interest, dividend, etc.).

Generation Skipping Transfer Tax – The IRS desires to collect a tax, equal to the maximum gift and estate tax rate, each time family wealth descends to a succeeding generation. Therefore, an additional transfer tax is imposed upon gifts to a person two or more generations younger than the donor whether such gifts are made in trust or directly, by will or during the donor's lifetime. The tax does not apply to gifts which fall under the $10,000 annual gift tax exclusion.★

For more information: Contact a qualified attorney and/or accountant

Bits and Pieces

The following is an upcoming County Landowner meetings that will deal with Stewardship issues:

Southeast Texas CFLOA – May 6, 2000. Location pending. For more information, call (409) 246-2484 (Texas Forest Service, Kountze).

Continuing Education for Logging Professionals:

2000 BMP Workshops

June 14, 15, & 16	Jefferson
Sept. 1 & 2	Lufkin
Dec. 8 & 9	Lufkin

2000 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

June 24	Atlanta
July 29	Lufkin

-For registration, call TFA after 1:00 p.m. at (936) 632-8733

☞ EPA sources say they expect to present their final ruling regarding TMDLs and NPDES by the end of June 2000.

✤ A good web site for water quality information is http://www.ncsu.edu/sciencejunction/depot/experiments/water/waterlinks.html. Links to other sites are included, as well as student and teacher pages teaching about ecosystems, conservation, water quality, watersheds, etc.

✤ The worst outbreak of southern pine beetle on record in Texas occurred in 1985 when more than 15,000 beetle infestations killed enough pine trees to build 50,000 houses!

We wish to thank the following contributors to this quarter's newsletter:

Ron Billings, TFS, FPM, Lufkin, TX
Lisa Lennon, TAEX, Travis & Williamson Counties, TX
Kathy Flannery, TFS, Marshall, TX
Kelcie Hibbs, Attorney at Law, Fort Worth, TX
Scotty Parsons, TPWD, Nacogdoches, TX
Mark Duff, TFS, Kerrville, TX

Supplemental Food Plots

Food plots provide a highly nutritious food source that can be beneficial to wildlife during periods of stress. Summer is often the most stressful period of the year for wildlife. Also, nutrient levels in native vegetation are much lower during the summer. This is an important time for deer, requiring a high protein diet for both bucks and does. Bucks are in the antler development period, and does are producing milk for their fawns.

Setting the Table

A good rule of thumb is to plant 1-3 percent of the total habitat in both warm and cool season forages. It is always best to establish a variety of plantings to provide more diversity and to insure against the failure of one type of planting. To minimize the distance that wildlife must travel, food plots should be distributed across the property as much as possible. It is essential that food plots are properly fertilized and limed in order to receive maximum benefit. Each food plot should have a soil test in order to determine the correct lime and fertilizer rates.

Summer Forages

Several species of plants will provide additional forage for the wildlife on your land during the summer stress period. Iron-and-clay cowpeas, buckwheat and alyceclover can be grown together to provide suitable forage throughout the spring and summer.

The best results for the pea/clover combination have been in bottomland soils. Upland soils will produce good summer forage if seasonal rains fall at the appropriate time. Planting should take place no earlier than June 1. Plant inoculated iron-and-clay cowpeas at a rate of 40 pounds per acre, then broadcast 10 pounds per acre of inoculated alyceclover on the soil surface; drag in to cover. The peas will provide immediate forage and shade for the clover. As the peas are eaten, the clover is exposed to sunlight and will continue to grow until first frost. American jointvetch can also be added to this mixture by planting five pounds per acre at the same time as alyceclover. While alyceclover, jointvetch and cowpeas are annuals, the jointvetch will reseed if it is allowed to produce seed and then mowed.

In the next newsletter, fall forages will be discussed.★

For more information: Scotty Parsons, TPWD, (936) 569-1632

TEXAS FOREST SERVICE
The Texas A&M University System

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Lufkin, TX 75902-0310

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Editorial Board
- Scotty Parsons, TPWD, Nacogdoches, Texas
- Jan Davis, TFS, Fort Worth, Texas
- Mark Duff, TFS, Kerrville, Texas
- Kathy Flannery, TFS, Marshall, Texas
- Jim Rooni, TFS, Austin, Texas

New Interactive Website

The new "Timberland Decision Support System" was developed to provide small timberland owners and foresters with a set of readily accessible, easy-to-use, and free tools to help them make better decisions on timberland investment and management. The site, at http://tfsfrd.tamu.edu, currently includes a tutorial on "Financial Concepts for Timberland Investment" with interactive formulas that can be used to demonstrate how basic financial concepts (interest rates, present value, future value, and bare-land value for timberland investment) works. There is also a "Timberland Management Simulator" to simulate the physical and financial outcomes of different management scenarios for loblolly pine plantations. This site can also be accessed from the TFS homepage (see left column) under the "Management Tools" button.★

For more information: Weihuan Xu, TFS; (979) 458-6659; *whx@tfs.tamu.edu*

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu ***July 2000***

EPA Proposed Rules

After receiving strong opposition from the forestry community, the EPA has decided to withdraw the silviculture provisions from its final ruling regarding Total Maximum Daily Loads (TMDLs) and National Pollutant Discharge Elimination System (NPEDS) permits. Silviculture will not be designated as a point source of water pollution. However, the EPA has indicated it will re-issue the proposed rule as it relates to silviculture in the fall along the lines described in a joint statement by the USDA and the EPA.

This joint statement basically said States would need to review, update and improve their BMP programs and meet EPA approval. In a letter to Senator Robert Smith, Charles Fox says, "...I agreed with your concern that our initial proposals for addressing water pollution problems caused by forestry operations needed to be substantially revised. In response to this concern, EPA worked closely with the USDA to develop an alternative approach to reducing water pollution from forest operations. I agree with the USDA and many in the forest industry that careful forest management can have diverse benefits to water quality in a watershed. The revised approach described in a Joint Statement of the USDA and the EPA gives States the lead role in forest water quality and encourages the development of strong State forest water quality programs."

The final TMDL ruling is due to be out the end of June or more likely mid-July.★

For more information: *www.epa.gov/owow/tmdl/proprule.html*

Inside This Issue . . .

Leaf-cutting Ant Control

Texas landowners who grow pine will soon have a new effective control option for a major pest of pine seedlings. The Texas Department of Agriculture has approved a 24C (Special Local Need) registration for Volcano™ Leafcutter Ant Bait. Research conducted by the Western Gulf Forest Pest Management Cooperative and Texas Forest Service has shown the bait to be effective in completely halting ant activity in as little as 4 weeks with a single application.

An Effective, More Economical Alternative

Since mirex was banned 20 years ago, methyl bromide has been the most effective option for control of the Texas leaf-cutting ant. However, methyl bromide is highly toxic, scheduled to be phased out by 2005, and has become prohibitively expensive. Other control options such as Amdro® leaf-cutting ant bait and Eradicator™ thermal fog system were recently registered for use against leaf-cutting ants, but both have proven ineffective and are no longer available.

Volcano™ Leafcutter Ant Bait, consisting of the sulfluramid insecticide on citrus pulp carrier, is highly attractive to leaf-cutting ants. Worker ants find the bait, carry it into their underground nests, and distribute it to the queen(s) and other ants, thus eliminating the entire colony in just a few weeks.

Treat Before You Plant

To prevent pine seedling losses, leaf-cutting ant colonies must be controlled in and around an area to be reforested prior to planting. Volcano™ should be applied at least 4 weeks before tree planting is initiated.

Volcano™ is available in one-pound packages from Red River Specialties in Jasper. Cost is $30.00 per pound. Orders can be placed by calling George Bieber at (409) 384-7965. The cost for treating an average size colony will be about 80% less than methyl bromide.★

For more information: Don Grosman, TFS, (936) 639-8170

Reducing the Threat of Wildfire

The Texas Forest Service (TFS) is taking a pro-active approach to preventing a catastrophic wildfire event from occurring in the State of Texas. Wildfire suppression resources have been extended and stationed more strategically across the state, wildfire prevention and education efforts are being increased, and two additional programs are being developed and implemented.

The TFS Urban Wildland Interface (UWI) program addresses the need to create a defensible space around properties developed in wildland areas. Agency representatives will evaluate the UWI risk statewide, starting in the Bastrop and Austin areas, and will offer recommendations for reducing wildfire risk to any property.

The TFS Prescribed Fire program will help to educate the citizens of Texas about utilizing prescribed fire as a tool to reduce wildfire fuel loading statewide. This program will include an educational campaign to reach everyone from government officials to grade school children to help them understand both the benefits and risks involved with prescribed fire. The Texas Forest Service is not in a position to conduct prescribed fires for landowners; however, the agency can provide assistance to landowners in property evaluations and developing burn plans. TFS will also conduct prescribed fire training classes at its Wildland Fire Fighting Academies in the spring and fall.*

For more information: Lexie Maxwell, TFS, (830) 990-5056

Essential Elements of a Complete Estate Plan

Beneficiary Designations for Non-Probate Assets - Plan for disposition of assets which do not pass under the will, such as life insurance proceeds, employee death benefits, 401k programs and IRAs.

Durable General Power of Attorney - A durable general power of attorney authorizes another person to act on behalf of the principal. It can be operative from day of execution or upon principal becoming disabled as found by the physician. The power must have an indemnity clause and be recorded in deed records to be effective as to transfers or sales of real estate.

Parental Consent for Medical Treatment - Parents can authorize other persons (babysitters, grandparents, etc.) to obtain medical care for minor children.

Revocable or Irrevocable Trust - Grantor may create during his lifetime a trust, name himself as trustee, transfer his assets to the trust, and provide that upon his disability, a successor trustee will replace him or her. Assets transferred to the trust during the grantor's lifetime escape probate and the arrangement helps avoid the need for a court-ordered guardianship in the event of incapacity.

Directive to Physicians - Statutory form allows an individual to direct that life not be prolonged by artificial means in the event the individual is certified to be "brain-dead" by two physicians, or is terminally ill and about to die.

Power of Attorney for Health Care - Legislation effective 9-1-89 allows an individual to designate another to make health care decisions if the individual is unable to act. Must be accompanied by a disclosure statement.

Anatomical Gift - By working through Southwestern Medical School, Baylor Medical Center, or organizations such as the American Counsel on Transplantation in Washington, D.C. or The Living Bank in Houston, a person may be able to give the gift of life to another. In 1987, the Texas Legislature passed S.B. 16, which requires hospitals to make routine inquiries of families of potential organ donors.

These are just a few of the decisions that need to be made when developing an estate plan. It is always best to start with a Will that names beneficiaries, guardians, and personal representatives, provides for independent administration, avoids intestate succession, decreases death taxes and probate costs, and observes legal formalities. See April's newsletter for more terms.*

For more information: Contact a qualified attorney and/or accountant

Bits · and · Pieces

Continuing Education for Logging Professionals:

2000 BMP Workshops

Aug. 30 & 31	Lufkin
Sept. 1 & 2	Lufkin
Dec. 8 & 9	Lufkin

2000 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

July 29	Lufkin
Aug. 15	Diboll

-For registration, call TFA after 1:00 p.m. at (936) 632-8733

✓ 14th Texas Tree Conference – Sept. 20-22, 2000 at the Waco Convention Center in Waco, Texas. Leading speakers will present the latest on planting, caring for and protecting the trees and forests. Contact Mike Waltersheidt at (512) 281-4833 or mbwalter@totalaccess.

❖ Lexie Maxwell is the Prescribed Fire Specialist for the Texas Forest Service and can be contacted by phone at (830) 990-5056, or paged at (800) 299-4099 PIN# 0256. For Urban Wildland Interface issues, please contacct Jim Blott at (936) 273-2263 or Rich Gray at (512) 303-9749.

❖ The "Directory of the Forest Products Industries in Texas" is available online at http://tfsfrd.tamu.edu/default.htm. This directory can be used to search for mills and companies in the forest sector in Texas by name, county, major product or major wood species it uses.

❖ For information and pamphlets on "Backyard Bird Feeding," Backyard Bird Problems," "Attract Birds," "Homes for Birds," and "Migratory Songbird Conservation," go to the U.S. Fish & Wildlife Service site http://migratorybirds.fws.gov/homepg.html, Pamphlets.

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER.

Don Grosman, TFS, Pest Management, Lufkin, TX
Lexi Maxwell, TFS, Fredericksburg, TX
Kelcie Hibbs, Attorney at Law, Fort Worth, TX
Scotty Parsons, TPWD, Nacogdoches, TX

Supplemental Food Plots

One of the keys to quality wildlife management is providing year-round nutrition. Last newsletter, we discussed summer forages.

Several options are available for fall plantings. Food plots of some species should be planted annually, while others give you an opportunity to establish a permanent plot that requires less maintenance. Permanent plots will provide nutrition at a crucial time for the deer. Late winter is one of the major stress periods for deer in the southeast, when most acorns will have been consumed and most native forage quality is low. A permanent plot of ryegrass and arrowleaf clover can help deer get through this tough period and leave them in excellent condition going into spring green-up.

Annual plots should include mixtures of cereal grains to provide early fall grazing and develop areas where you can consistently see deer to improve your harvest. Elbon rye, oats, wheat, and ryegrass are species that grow well in this area. Elbon rye or wheat at 75 lbs. per acre combined with oats at 35 lbs. per acre is an excellent mix. Once freezing weather occurs, the oats can be killed by frost while the rye or wheat will remain to grow throughout the winter. Ten lbs. of ryegrass and 10 lbs. of inoculated arrowleaf clover seed can be broadcast on the ground and dragged in after the grain has been covered. The grains will provide nutrition through March and April, and the clover will start its growth in January and February, continuing until June or July.

Ryegrass and arrowleaf clover can be planted by themselves to make a permanent plot. Twenty-five lbs. of ryegrass and 10 lbs. of arrowleaf clover can be broadcast on prepared ground and dragged in. Once established, these areas only need to be mowed or lightly disked in August to remove competing vegetation and fertilized according to recommendations following seed germination in the fall. There are other species that will grow well on adjacent plots. Subterranean clover can be planted on bottomland soils at the rate of 15 lbs. per acre. Austrian winter peas can be planted in bottoms or on upland soils at a rate of 35 lbs. per acre if planted alone. If planted with other species, plant 20 lbs. per acre.*

For more information: Scotty Parsons, TPWD, (936) 569-1632

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- Kathy Flannery, TFS, Marshall, Texas
- Jim Rooni, TFS, Austin, Texas

Tree Planting Workshops

The Texas Forest Service is hosting several pine tree planting workshops throughout East Texas this fall. The workshops will address the needs of landowners who would like to grow pine trees as an investment.

Foresters from the Texas Forest Service and the Texas Agricultural Extension Service will address topics such as economic return, tax incentives, site preparation, purchasing seedlings, and vendor selection.

A list of upcoming workshops can be found in the "Bits and Pieces" section of this newsletter.

The cost of the workshop is $10 per person, which includes lunch and materials. For more information or to register for a workshop, please contact your local TFS office or visit the TFS website. Registration forms must be in one week prior to the scheduled workshop.★

For more information: http://txforestservice.tamu.edu

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu ***October 2000***

USFS Injunction Annulled

On September 20, the Fifth Circuit Court of Appeals issued a ruling that overturned an August 1997 injunction that had halted most timber harvesting activity in the National Forests in Texas. The ruling followed a May 2000 en banc [full court] hearing before a 13-member Fifth Circuit Court panel in New Orleans.

The 1997 injunction had been issued by Judge Richard Schell for the U.S. District Court for the Eastern District of Texas following a May 1996 trial in Beaumont. According to Forest Supervisor Ronnie Raum of Lufkin, the ruling lifting the injunction will be effective when the Fifth Circuit Court issues a mandate, and that action is expected in mid-November.

The opening paragraph of the opinion reads, "The single issue before us is whether the plaintiffs in this case – the Sierra Club, the Texas Committee on Natural Resources and the Wilderness Society – limited their challenge to identifiable final agency actions of the U.S. Forest Service. Because we conclude that they did not, and that the district court therefore exceeded its jurisdiction in hearing their challenge, we vacate [annul] and remand [return from one court to another]." In other words, it was determined that the district court lacked jurisdiction to conduct a forest-wide trial and to issue a forest-wide injunction.★

For more information:
http://www.ca5.uscourts.gov/opinions/pub/97/97-41274-cv2.HTM

Inside This Issue . . .

Live Oaks and Water Use

Researchers are finding that the stately live oak trees that are usually prized on rangelands tend to consume more water than those scrubby-looking junipers. "Many people have thought that juniper, or cedar, used most of the available water on a rangeland, prevented grass growth and, in this area, reduced water flowing underground into the Edwards Aquifer," said Dr. Keith Owens, a range scientist with the Texas Ag. Experiment Station in Uvalde. "The study indicates that, during times of high or adequate rainfall, less water is available to grasses or shrubs on oak-dominated rangeland than in juniper-dominated areas." Also, in a direct comparison made over a 2-year period, cedar trees used about 50% less water than oak trees.

Who's the Bad Guy Now?

In a 3-year study conducted on the Annandale Ranch in northern Uvalde Co., researchers found that the cedar trees photosynthesized at the same rate all the time, no matter how much or how little rain they received. The oak trees increased their rate of photosynthesis as water availability increased. In times of extreme drought, the juniper maintained almost the same water use as other times, while the live oak tree decreased water use slightly.

Distribution Patterns are Key

In another aspect of the study, the researchers sought to determine how much trees increased their water use after neighboring trees and brush had been removed. The researchers found that the distribution of remaining trees after clearing brush greatly affects water availability. When 20 trees are left scattered on 20 acres, they will harvest water over the whole area. If they are left in small groups, the more limited spread of their roots will affect a smaller area. Clumps or strips of trees need to be worked into management plans, Owens said.★

For more information: TAEX, Uvalde Co., (830) 278-6661

The Drought Commeth

Reports of pre- and early-settlement describe Central Texas as a vast grassland with scattered pockets of trees and narrow bands of trees along the rivers and drainage corridors. With the 20 to 30 year cycle of droughts and uncontrolled wildfires, trees could not survive and tall- to mid-grass prairies dominated the landscape. With settlement, wildfires were all but eliminated or their effect reduced by plowed fields, overgrazed pastures and eventually roads and cities. The forest both natural and planted dominated the landscape.

Today, fires are more of a rarity, but the droughts keep on coming and when they do, the trees suffer. On many of the shallow soil profiles during consecutive years of drought and 100° temperatures, all the water is consumed and the trees die. Unlike grasses that go dormant and regenerate from the crown, woody plants and trees can only go so long without water, then they are dead.

There are practices and precautions we can take now and during another possible drought to help our landscape trees survive. Newly planted trees should be deep watered during early summer. Water should be applied slowly over a long period of time so the soil profile is wetted several feet deep. Deep watering must continue throughout the drought. An area 3 to 4 feet around the tree should be covered with perforated plastic mulch then covered 3 to 4 inches with organic mulch and maintained weed-free. The mulch not only conserves soil moisture but also eliminates weed and grass competition

Established trees need help too. In an irrigated landscape, drought can be overcome until water rationing is brought into play. The choice may be to let the turf go dormant and judiciously hand water to keep the woody plants alive. Turf can go dormant and has a greater ability to recover than trees and shrubs.

Eliminate competition and apply mulch. Grass has a much more efficient root system than trees and other woody plants. Grass roots can remove 100% of the soil moisture, where tree roots have access to only about 10% of the soil moisture. Remove the grass from around the trees as far as possible to reduce the competition for moisture and install mulch. After the drought is over, the grass can be allowed to encroach back to the trunk of the tree. If the tree crown has mistletoe, cut it out. The mistletoe draws its water and nutrients from the tree. A tree full of mistletoe is more susceptible to drought. If you have trees that are too close together, you may need to remove the weaker ones to reduce the competition for light, water, nutrients and space.★

For more information: Larry Schaapveld, TFS, (817) 926-8203, or *tfsftw@swbell.net*

What is the Forest Stewardship Council?

The Forest Stewardship Council (FSC) is an international non-profit organization based in Oaxaca, Mexico. It was founded in 1993 "to support environmentally appropriate, socially beneficial, and economically viable management of the world's forests." Its membership consists of representatives from environmental and social groups, the timber trade and the forestry profession, indigenous people's organizations, community forest groups, and forest product certification organizations from around the world.

The FSC is introducing an international labeling scheme for forest products. Forest products carrying their logo have been certified as coming from forests that meet "FSC Principles and Criteria of Forest Stewardship."

This group has managed to get major corporations to agree to carry products coming from FSC-certified forests (see special article inserted into this newsletter).

Some of the principles followed by the FSC include: strive to avoid use of chemical pesticides; plantations established in areas converted from natural forests after Nov. 1994 in most cases shall not qualify for certification; sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be protected by forest managers; the rate of harvest shall not exceed levels which can be permanently sustained; environmental impact assessments shall be completed, including landscape level considerations.★

For more information: http://www.fscoax.org

Bits · and · Pieces

Continuing Education for Logging Professionals:

2000 BMP Workshops

Dec. 7, 8, 9, 11, 12	Lufkin

2000 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

Nov. 17	Diboll

For registration, call TFA. at (936) 632-8733

Pine Tree Planting Workshops

Oct. 20	Jasper (First Nat'l Bank Community Room)
Oct. 27	Jefferson (Cypress Valley Alliance Building)
Nov. 11	Jacksonville (Norman Activity Center)
Nov. 18	Nacogdoches (Donohue-Kurth Lake)

For registration, call TFS District Offices

❖ The newly-published *Voluntary Compliance with Forestry Best Management Practices in East Texas* is available online at http://txforestservice.tamu.edu/manage/bmpfol/compli.htm This report documents results from Round 4 of BMP compliance monitoring by the TFS BMP Project.

❖ For information on herbicides, pesticides and more:
American Cyanamid (now BASF) has an interesting website with loads of information on forestry, wildlife, pest (including fire ants) products, management, and facts. Go to http://www.cyanamidspd.com/home.asp and click on Forestry or Wildlife. They also have a new booklet titled "Brush Control – Best Management Practices."
DuPont's website, http://www.dupont.com/ag/us, has information on their herbicide and pesticide products. Click on Product information, then choose a product type.

We wish to thank the following contributors to this quarter's newsletter:

Gay Ippolito, USFS, Lufkin, TX
Edith Chenault, TAEX, College Station, TX
Larry Schaapveld, TFS, Fort Worth, TX
Mark Duff, TFS, Kerrville, TX
Dr. David Appel, TAMU, College Station, TX
Kathy Flannery, TFS, Carthage, TX

Oak Wilt Treatments

Over the past few years, claims have been made that oak wilt can be cured or prevented by maintaining vigorous and healthy oaks, boosting their immune systems and therefore helping them resist infection by the pathogen that causes oak wilt. The best way to assess the validity of these claims is by examining the facts about oak wilt, tree health and immunity.

Healthy is as Healthy Does

The oak wilt fungus is a vascular wilt disease that invades and causes the plugging of the water conducting tissues of oaks, initiating wilt and almost certain death. It has become clear that oak wilt does indeed kill healthy, mature live and red oaks just as easily as it kills stressed ones. A good case can be made that the higher level of vitality a tree has at the time of infection, the more quickly the tree will begin its response of plugging its vascular system, thus leading to rapid mortality. So, the notion that keeping oaks healthy to prevent oak wilt mortality is misleading, if not untrue.

From a general tree health perspective, it is a good idea to keep trees healthy. By keeping trees vigorous, they can better defend themselves against secondary problems such as insect defoliation, hypoxylon fungus and drought stress.

Proven Treatments

Nearly 2.5 million feet (about 475 miles) of state and federally cost shared trenches have been installed surrounding nearly 1,700 oak wilt centers in Texas since 1988. Trenching severs the root connections (which are the major conduit for oak wilt spread in live oaks) between adjacent trees. The oak wilt is contained within the boundaries of the trenches in about 66% of the cases. Tens of thousands of trees have been treated with Alamo® fungicide (propiconizole). While there are failures, there are significantly greater numbers of trees that have survived following these recommended treatments than if they had not been treated.

So, until a better "scientifically"-determined treatment is found, individual macroinjections with Alamo® fungicide and trenching to prevent tree-to-tree spread remain the most effective (although not perfect) tools to combat this disease today.★

For more information: Mark Duff, TFS, (830) 257-7744 , or *tfskerr@ktc.com*

➢ Take a Look . . .

Signs of the Times – Businesses Refusing "Endangered" Wood

Major wood-using businesses have announced new policies that they say are "environmentally sound."

Lowe's, the nation's second-largest home improvement retail chain, has announced plans to stop selling wood products from "endangered" forests. Lowe's issued an immediate ban on products from the Great Bear Rainforest of British Columbia. They are also focusing on logging in the Pacific Northwest and the Southeast. The company has already eliminated ramin dowels from Indonesia from its inventory and switched to a domestic poplar species.

Bob Tillman, Lowe's chairman and chief executive, stated: "Our customers expect Lowe's to deliver the best quality lumber and wood products that have been responsibly harvested and produced by our suppliers."

Michael Brune of the Rainforest Action Network, which has lobbied for policies such as this from the nation's top lumber retailers, commended Lowe's decision. "We're excited about it," he said. "It redefines what it is to be an ethical wood retailer and signals the end of logging in endangered old-growth forests."

Lowe's also formed a Healthy Forests Advisory Board that will advise the company on general forestry issues and help implement the new policy. The board will include representatives from environmental groups, environmental scientists, suppliers, certifiers and buyer groups. Some of the issues the Board will address are the conversion of Southern forests to pine plantations, commercial logging in U.S. National Forests and illegal logging in some foreign countries.

August of last year, **Home Depot**, the largest home improvement retailer in the United States, vowed to stop selling wood and wood products from "endangered" areas by the year 2002. After protests and pressure from groups such as the Forest Stewardship Council (FSC) and the Rainforest Action Network, Home Depot announced it would phase out sales of the most endangered species of wood and give preference to FSC-certified products. Home Depot is working the FSC products into its stores gradually, citing limited supplies of the certified wood.

Centex Homes, a leading residential home builder, announced earlier this year that it intends to eliminate the use of wood originating from "endangered" forests by the end of 2002. The company is encouraging its forest product suppliers to accelerate the certification of environmental practices when providing wood and wood products for the construction of its homes.

Centex Homes' vendor policy is as follows:

"To ensure that wood and wood-related products used in Centex Homes construction are coming from renewable sources, Centex Homes will give preference to wood products coming from vendors who subscribe to sustainable forestry management and certification programs. Examples of these programs include the American Forest and Paper Association (AF&PA), Sustainable Forestry Initiative (SFI), the Forest Stewardship Council (FSC) certification program, the Canadian Standards Association (CSA) Sustainable Forest Management System Standard (CAN/CSA Z808-96) or the International Standards Organization (ISO) 14001 EMS Program."

Centex has formed the Environmentally Responsible Construction Task Force to work with forest product suppliers to ensure compliance with renewable resources and sound forest management practices in timber products sold to the company.

The nation's fourth largest home improvement retailer, **84 Lumber Company**, has also announced that it will phase out sales of wood products from "endangered" forests by the end of 2003. The company plans to employ independent, third-party certification systems to ensure the products sold in their stores come from well-managed forests.

➢ More . . .

Forest protection advocates are concerned, however, that only one certification program of the four to be used by 84 Lumber is actually an independent, third-party system - that of the Forest Stewardship Council. "Having industry-sponsored certification programs that are not independent is like having the fox watching the hen house," says Jennifer Krill of the Rainforest Action Network. "It's more appropriate to have foresters and environmentalists involved in the certification process."

Derek Jumper of the American Forest and Paper Association (AF&PA) advocates their own Sustainable Forest Initiative, a certification program he identifies as having the same goals as the FSC's. "The members of the AF&PA support this shift by retailers to certified wood products," Jumper says, "but we believe that it's important for retailers to recognize different certification programs."

Other companies that are embracing the FSC's standards are **Wickes Inc.** (lumber) and **Andersen Corp.** (windows).

Jim Carlton of the *Wall Street Journal* reports retailers that together sell over one-fifth of all wood used in America's home-remodeling market have vowed to follow FSC standards. "There is no question that the FSC has absolutely changed the fabric of the industry," says Catherine Mater, a forest products consultant in Corvallis, Oregon

Others with opposing views have objected to comparing southern forests to the rainforests, stating that forests in the South are the most productive and sustainably managed in the world. The new policies held by Lowe's and others are seen as an insult to Certified Tree Farmers who practice sustainable forestry and follow good stewardship principles. These policies are also seen as an infringement on private property rights and the free enterprise system. [Private and corporate lands account for about 90% of the South's commercial timber].

* * * * * * *

➢ How to Contact These Companies . . .

Lowe's Companies, Inc.
Customer Service
Box 1111
North Wilkesboro, NC 28656
1-336-658-4000
www.lowes.com
[Bob Tillman is Chairman and CEO]

The Home Depot
Attention: Consumer Affairs
2455 Paces Ferry Road
Atlanta, GA 30339
1-800-430-3376
Feedback form – www.homedepot.com

Centex Homes
P. O. Box 199000
Dallas, TX 75210-9000
214-981-5000
www.centexhomes.com
[Andrew J. Hannigan is President and Chief Operating Officer]

84 Lumber Co.
Shawn Ahearn, Public Relations
1-800-664-1984 ext. 1454
www.84lumber.com
[Maggie Hardy Magerko is President]

Andersen Corp.
100 Fourth Ave. North
Bayport, MN 55003-1096
651-264-5150
www.andersencorp.com

Wickes Inc.
706 North Deerpath Dr.
Vernon Hills, IL 60061
1-800-558-1232
www.wickes.com

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The Texas A&M University System

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- Jan Davis, TFS, Fort Worth, Texas
- Mark Duff, TFS, Kerrville, Texas
- Kathy Flannery, TFS, Carthage, Texas
- Jim Rooni, TFS, Austin, Texas

America's Ancient Forests

A new book, *America's Ancient Forests: From the Ice Age to the Age of Discovery*, weaves historical accounts and scientific knowledge into a dynamic narrative about the ancient forests of North America and the events that shaped them. It was written by Thomas M. Bonnicksen, Ph.D., of Texas A&M University.

Divided into two major parts, this book covers first the glaciers and forests of the Ice Age and the influences of native peoples, and then provides an in-depth look at these forests through the eyes of the first European explorers. Changes in climate and elevation, the movement of trees northward, the assembly of modern forests, and qualities that all ancient forests shared are also thoroughly examined. The author also offers a discussion of how the Native American cultural practices of hunting, agriculture, and fire helped form the ancient forests.★

Available at: Amazon.com and other e-booksellers

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu *January 2001*

Master Tree Farmer Series

Forest landowners and others interested in managing southern forests are invited to participate in a live satellite broadcast shortcourse this spring. "Master Tree Farmer 2001" will be broadcast live from Clemson University every Tuesday evening beginning February 6th and ending March 20th, 2001, at selected locations throughout the South, including Texas. Natural resource professionals will be on-site to answer any local questions. There will also be a 1-800 number for calling in questions on the site.

Cost is $100 per person and $150 per married couple (if received by January 22). Cost includes attendance at all 7 sessions and field tour, dinner, and a notebook of the meeting proceedings. In Texas, the sessions run from 6:00 pm to 9:00 pm CST. For cities and locations, contact the number below.

Dates and topics are: **February 6** – Introduction to Forest Management: Forestry Terms and Concepts; **February 13** – Basic Forest Finance, Estate Planning, Taxation; **February 20** – Natural Pine Management, Intensive Pine Management; **February 27** – Upland Hardwood Management, Bottomland Hardwood Management; **March 6** – Marketing, Timber Harvesting, Timber and Timberland Security; **March 13** – Management of Game and Non-game Wildlife; **March 20** – Forestry Services and Programs Available for Landowners; **March 24** – Field Tour, 9 am-4 pm.★

For more information: Eric Taylor, TAEX, (903) 834-6191, or *eric-taylor@tamu.edu*, or *www.mtf2000.net*

Inside This Issue . . .

Tax Tips for 2000

Forest landowners – remember these points when preparing your Federal income tax return for 2000.

Basis and Tax Records –Part of the price you receive from a timber sale is taxable income, but part is also your investment (i.e., basis) in the timber sold. Allocate your total costs of acquiring purchased forestland (or the value of inherited forestland) among land, timber, and other capital accounts as soon as possible. Keep good records, which include a management plan and map, receipts for business transactions, diaries, and landowner meeting agendas.

Passive Loss Rules –Decide if you are going to be an active or passive participant in a business, or an investor. Generally, you will get the best tax advantage if you are an active participant in a business.

Reforestation Tax Credit and Amortization –If you reforested during 2000, you can claim a 10% investment tax credit for the first $10,000 you spent during the tax year. You can also amortize (deduct) all of your 2000 reforestation costs up to $10,000, minus half the tax credit taken, over the next 7 years.

Capital Gains and Self-employment Taxes –If you sold timber during 2000, you may be able to benefit from the long-term capital gains provisions because you do not have to pay self-employment tax on capital gains.

Cost-share Payments and CRP –If you had cost-share assistance during 2000, you must report it to the IRS. You may choose to exclude some or all of it, if certain qualifications are met, but you still must report it. If you participated in the Conservation Reserve Program (CRP), your annual payments and any cost-share assistance funds received must be reported as ordinary income.★

For more information:
www.southernregion.fs.fed.us/spf/documents/Tax_Tips_Final%20_2000.pdf

Weather Trends - The Drought Cycle

Four of the last five years have seen drought conditions in Texas. While dry conditions are not uncommon in the state, the recent drought patterns are well outside of what we normally expect in both frequency and intensity.

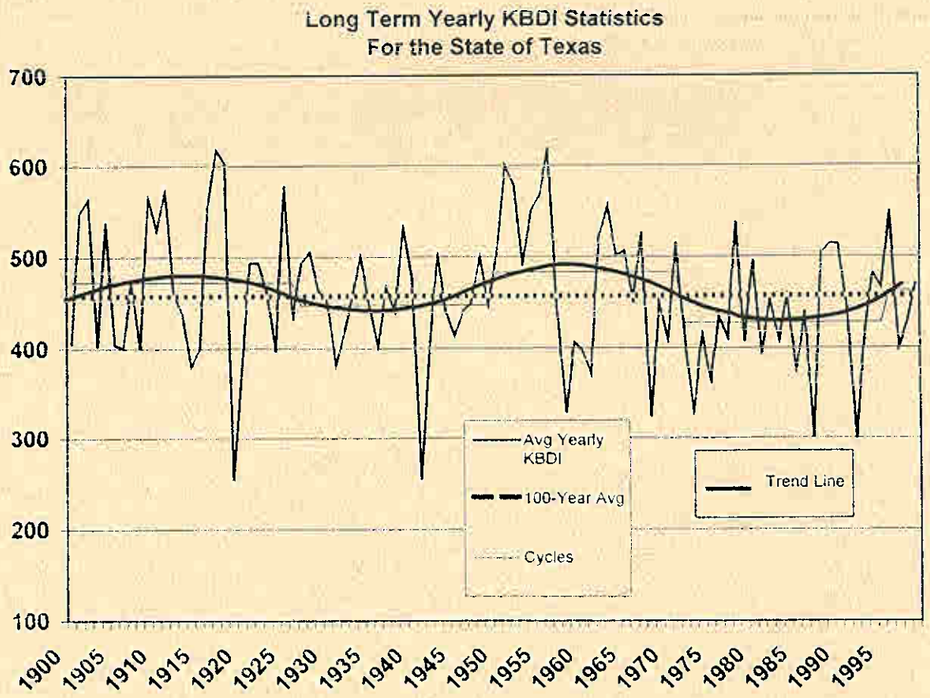
One of the primary indicators for measuring drought and estimating its impact on expected fire behavior is the Keetch-Byram Drought Index (KBDI). The Keeetch-Byram Drought Index was developed in the south to measure drought conditions and correlate the level of dryness to fire danger and expected behavior. Drought is measured on a scale from 0 to 800 with 0 being the wettest and 800 the driest. KBDI is ccurrently used in Texas for supporting the implementation of county burn bans and firework bans.

The graph below shows an analysis of the historical rainfall and KBDI patterns for the state for the last 100 years. The jagged line shows the actual KBDI patterns for the year. The dotted line shows the 100-year average. At first glance this pattern seems relatively random. A closer analysis of these numbers, however, shows a 20 to 25-year cycle from a dry pattern to wet and back again. The thinnest line is the average (cycles) for those 20 to 25-year periods.

As you can see, not all years within a wet cycle are wet. However, during a wet cycle, the wet years are the norm and the dry years are the exception with the overall average for the period being wetter than the 100-year average. The reverse is true during the dry cycle. The black curved trend line illustrates the cyclic nature of the pattern. Also note that the variance from the 100-year average is increasing from cycle to cycle.

If this pattern holds true, it would indicate the state is currently in transition from a cycle of above average precipitation to one of below average precipitation. This would help explain why four of the last five years have seen extended dry periods.

For more information:
http://txforestservice.tamu.edu/fire_protection/keetch_byrum_drought_index.html



Bits and Pieces

Continuing Education for Logging Professionals:

2001 BMP Workshops

Feb. 16 & 17	Jefferson
Feb. 22 & 23	Lufkin

2001 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

Mar. 9 Diboll

-For registration, call TFA after 1:00 p.m. at (936) 632-8733

❖ The National Building Museum in Washington, D.C. has recently unveiled a comprehensive exhibit entitled "Wood: An American Tradition." The exhibit, sponsored by the Society of American foresters as part of its centennial celebration, will run through April 2001.

❖ The Texas Agricultural Extension Service has a web page with publications you can download or order. Topics include Forestry, Natural Resources, Wildlife, Insects, and others. This catalog can be found at http://texaserc.tamu.edu/catalog.

❖ **Trees, People and the Law** Seminar – Jan. 24, 2001; Lady Bird Johnson Wildflower Center; 4801 La Crosse Ave., Austin, Texas. This full-day seminar opens with an introduction to basic legal concepts, followed by an examination of the important issues regarding trees and the law. State and local laws and court cases will be included. An online brochure with more information is available at http://www.arborday.org/programs/tplNatlSemBrochure.html.

❖ The Southern Forestry Extension Service has an interesting website covering topics on Forest Management, Wildlife Management, Wood Products, Urban Forestry and others. You can also download publications such as *Managing the Family Forest in the South*. The site is http://www.soforext.net

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER:

Larry M. Bishop, USFS, Atlanta, GA
Tom Spencer, TFS, Huntsville, TX

Trees and the Urban Environment

Every mile we drive and every light we switch on burns energy that adds carbon dioxide (CO_2) to the atmosphere. Reduce your impact. Calculate your CO_2 output and plant trees to offset it.

In addition to the many benefits trees provide, they remove CO_2 from the atmosphere. If you know how many miles per gallon your vehicle gets, you can use this table to calculate the number of trees that will offset its CO_2 production

For every 10,000 miles you drive					
If you get mpg:	40	30	20	15	12
Plant this many trees:	7	10	15	20	25

Tree Facts

Strategically planting trees to shade and cool a home can reduce summer cooling costs between 10 to 40%.

•

In just 25 years, more than 60 percent of heavy tree cover has been lost in the Atlanta, Georgia region and city temperatures are 6 to 10 degrees hotter in areas without trees.

•

Each gallon of gasoline burned produces 19.6 pounds of carbon dioxide.

•

On average, a tree growing 40 years will sequester 1 ton of carbon dioxide.

•

American Forests recommends that most cities strive for 40 percent tree cover, 30 percent in the arid Southwest.

★

For more information: www.americanforests.org or 1-800-545-TREE

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The Texas A&M University System

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- Mark Duff, TFS, Kerrville, Texas
- Kathy Flannery, TFS, Carthage, Texas
- Jim Rooni, TFS, Austin, Texas

Stewardship Workshop

The Selah, Bamberger Ranch near Johnson City, Texas will be conducting a workshop on Hill Country Land Stewardship. The next workshop date is September 29, 2001, rain or shine.

The subjects include:

- Cedar Management
- Grasses
- Water Conservation
- Tree Planting
- Wildlife Management
- Endangered Species
- Wildlife Agricultural Exemption

This eight-hour outdoor workshop will be conducted by their experienced ranch personnel.

The ranch also offers other workshops, tours and field days. Check their website for dates, costs, descriptions, and location.★

For more information: www.bambergerranch.org; (830) 868-4639

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu ***April 2001***

WQ Management Plans

Texas Senate Bill 503 of the 73rd Legislature created a program that provides landowners involved in agriculture and silviculture an opportunity to comply with state water quality laws through traditional voluntary, incentive-based programs. Site-specific forestry water quality management plans, developed in cooperation with local Soil and Water Conservation Districts, ensure that forestry operations are carried out following forestry Best Management Practices to help protect water quality and prevent soil erosion.

Once the water quality management plan (WQMP) is developed and approved by the Texas State Soil and Water Conservation Board, it becomes certified and the landowner must implement scheduled events as specified in the plan. A landowner operating under a certified WQMP has essentially the same legal status for nonpoint source pollution as an entity operating under a Texas Natural Resource Conservation Commission point source pollution permit.

Other benefits to having a certified WQMP include: the plan changes to meet your needs as they change; provides you an opportunity to meet with experts to review and make recommendations to your plan; allows a landowner to install conservation methods over a period of time; cost share opportunities are possible.

To request assistance for a site-specific WQMP, contact your local Texas Forest Service office.★

For more information: Jacob Donellan, TFS BMP Project, (903) 665-7400, or jdonellan@tfs.tamu.edu

Inside This Issue . . .

What Is Agroforestry?

Agroforestry practices are intentional combinations of trees with crops and/or livestock that involve intensive management of the components as an integrated agroecosystem. Such integration utilizes more of the productive capacity of the land and helps to balance economic production with resource conservation.

A wide range of agroforestry combinations may be grouped into five basic types of practices:

Alley Cropping – combines trees, planted in single or grouped rows, with agricultural or horticultural crops that are cultivated in the wide alleys between the tree rows. Annual crops cultivated between rows of nut or fruit trees or high-value hardwoods provide extra income before the trees come into bearing and early in the long-term timber rotation.

Windbreaks – enhance crop production, protect livestock, control soil erosion, improve bee pollination of crops, and provide wildlife habitat.

Riparian Buffer Strips – perennial vegetation (trees, shrubs, grass) planted between cropland or pastures and streams, lakes, wetlands, ponds, or drainage ditches. They reduce runoff and nonpoint source pollution from agricultural activities on adjacent lands by trapping sediment, filtering excess nutrients and degrading pesticides. They also stabilize streambanks, protect floodplains, enhance aquatic and terrestrial habitat, improve landscape appearance, provide harvestable products, and function as a windbreak.

Silvopasture – combines trees with forage (pasture or hay) and livestock production. The overstory tree component provides shade and wind shelter.

Forest Farming – utilizes a forested area for producing shade-tolerant specialty crops which are sold for medicinal, ornamental or culinary uses.★

For more information: Jim Robinson, NRCS, www.unl.edu/nac/; Assn. for Temperate Agroforestry, http://web.missouri.edu/~afta/

Wildlife and Habitat Management on Small Acreages

Wildlife and habitat management on smaller properties can be challenging. Can you really manage habitat for white-tailed deer on 20 acres? No, but there are things landowners can do to benefit wildlife on almost any size property, especially with a little creative thinking.

Fallow disking – disking the soil in the winter months after the first freeze but prior to the first green up of spring. This promotes the germination and growth of grass, weed and wildflower seeds already present in the soil.

Supplemental water – stock ponds, troughs, windmill overflow basins, wildlife guzzlers, plastic drums.

Supplemental food – wildlife feeders, food plots. Feeders, while often providing a good place to observe or harvest animals, usually do not provide a substantial benefit to most wildlife species. They also may increase the threat of predation and spread of diseases. Food plots planted in native plant species are generally a better option. Native grasses, forbs (weeds) and wildflowers usually provide a better nutritional benefit. However, feeders and food plots should always be viewed as secondary to proper habitat management.

Brush management – In Texas, Ashe juniper (cedar) and mesquite are invasive species that require management. Mature juniper, especially on land with a history of overgrazing and lack of natural wildfires, can take over the landscape. A little work to remove some of this brush to create a "patchy" landscape will greatly benefit many species of wildlife. Remember, some cedar is beneficial because it is evergreen and provides year-round cover for many wildlife species.

Supplemental shelter – nest boxes, brush piles. Instead of burning all piles of cleared juniper, leave a few piles to create habitat and escape cover for small birds and mammals. Nest boxes for bluebirds and wood ducks are also simple and easy ways to provide valuable nesting habitat.

Annual census – for monitoring the stability, growth and health of populations of many wildlife species.

Wildlife cooperatives – Landowners joined together with common objectives and goals can manage wildlife habitat on a much larger scale than they could independently.

There are many other ways to manage wildlife habitat. Contact your local Texas Parks and Wildlife office for information on how to obtain assistance with wildlife habitat management on your property under the Private Lands and Habitat Program.★

For more information: Nathan Rains, TPWD, (817) 641-3367, or nathan@htcomp.net

A Living Legacy - The Texas Heritage Forest Program

The stewardship of Texas' forests has been a proud calling for generations of Texans. It remains so today. Texas forestlands are owned by 250,000 men, women and families across the state.

Every year, vast tracts of Texas forest disappear as private acreage gets sold or subdivided. This situation has prompted the TFS, in partnership with the Texas A&M Foundation, to initiate the Texas Heritage Forest Program. This program enables landowners to establish a unique, prominent, living legacy of forestlands and endowing research, education and extension projects that honor the people and places the landowner cherishes.

A gift of forestland may take two distinct forms:

GIFT OF PROPERTY FOR DEMONSTRATION FORESTS – The TFS will accept a limited number of properties to serve as Demonstration Forests located around the state. In honor of donors or other designees, these forests will be maintained for the education and enjoyment of future generations. Proceeds from the sale of timber from these properties will be used to fund endowments to help offset the cost of demonstration programs.

GIFT OF TIMBERLAND TO CREATE ENDOWMENTS – The TFS also welcomes gifts to be managed or sold, at its discretion, to establish service and educational endowments. Each endowment becomes a permanent legacy, named to honor the donor or loved ones.★

For more information: TFS Headquarters, (979) 458-6600, or tx-stateforester@tamu.edu

Bits · and · Pieces

CONTINUING EDUCATION FOR LOGGING PROFESSIONALS:

2001 BMP WORKSHOPS

JUNE 6, 7, 8 LUFKIN

-FOR REGISTRATION, CALL TFA. AT (936) 632-8733

LANDOWNER MEETINGS DEALING WITH STEWARDSHIP ISSUES:

Wood/Upshur Counties Forest Landowners Meeting - Apr. 21, 2001, in Gilmer. For more information, call (903) 734-7007 (Texas Forest Service, Gilmer).

Houston County Forest Landowners Meeting - July 28, 2001, in Crockett. For more information, call (936) 544-7798 (Texas Forest Service, Crockett).

TEXAS SOCIETY OF AMERICAN FORESTERS ANNUAL MEETING: - MAY 1-3, 2001

Location: Rayburn Country (near Jasper)

Theme: "Forestry Opportunities – Surviving or Leading"

-For registration brochure, contact Kathy Flannery, TSAF Chair, at kflannery@tfs.tamu.edu, (903) 693-9398; or Ken Addy, TSAF Chair-elect, at ken.addy@lpcorp.com, (936) 788-9750.

❖ Vote for a national tree for the United States. You can vote at the Arbor Day Foundation's website at www.arborday.org , which contains educational material on the list of tree candidates. Online voting will take place through midnight before National Arbor Day, the last Friday in April, April 27, 2001.

❖ Texas Parks & Wildlife Press announces an online bookstore offering a variety of titles about the Texas outdoors, including the *Official Guide to Texas State Parks*, the *Official Guide to Texas Wildlife Management Areas*, and the *Learn About . . .* series of children's activity books. Books can be ordered online at www.tpwpress.com or by calling 1-800-747-1726.

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER:

Nathan Rains, TPWD, Cleburne, TX
John Burk, TPWD, Nacogdoches, TX

To Turkey Hunt. . .or Not?

In trying to establish a population of turkeys, some landowners and hunting club presidents tend to over-regulate their hunters. Five breeding seasons of protection has proven to be more than enough time for an eastern turkey population to become established. Turkey population densities, growth, and rate and distance of expansion are controlled by habitat quality. Turkeys need "mature" forests that are open at ground level with good long-distance visibility and at least some of the forest in mast-producing hardwood.

Let's Do Some Math

Example: We stock 5 gobblers to 15 hens. With adequate acorn production during the fall, at least 14 of the 15 will lay 10 eggs each. If you have good nesting habitat (knee-high grasses and weeds with some scattered shrubs), your nest success (eggs hatched) can be up to 40%, or 56 poults on the ground. The average renesting rate for turkeys on good range is 50%. Therefore, the 8 hens that lost their original nests will lay again with an average clutch size of 7, or 56 more eggs, and 22 more poults. If you have good brood rearing cover (knee-high grasses and weeds with no shrubs), your poult survival will probably average about 50%, or about 39 new turkeys added to you population. A clutch of turkeys will have a 50/50 sex ratio, so your second year population will consist of 23 gobblers and 30 hens (1.3 hens/gobbler), considering some natural mortality. We stock at a 3-to-1 ratio, which is about what the ratio should be for adequate reproduction.

The Bottom Line

Turkeys are very mobile. Normal turkey populations will expand rapidly into new country during successive years of above-average reproductive success. As high quality habitat becomes saturated, more marginal sites will begin to see turkeys. When the population experiences a decline in response to successive droughts or habitat fragmentation, populations in marginal areas will disperse back into higher quality areas. The net long-term affect is a naturally occurring ebb and flow in turkey populations that is unaffected by conservative harvest. Not a single turkey has been added to your population by needlessly denying yourself or your club this hunting opportunity.★

For more information: John Burk, TPWD, (936) 560-5779 , or jburk@sfasu.edu

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- Mark Duff, TFS, Kerrville, Texas
- Kathy Flannery, TFS, Carthage, Texas
- Jim Rooni, TFS, Austin, Texas

America's Tree

The votes are in! The people have selected the oak as their choice for America's National Tree in the nationwide vote hosted by the National Arbor Day Foundation. From the first day of voting, the oak was the popular choice of the American people. Another magnificent American tree, the redwood, was second.

With nearly a half-million votes logged, the oak received over 100,000 votes. The top five trees – oak, redwood, dogwood, maple and pine – captured 67% of the vote, with 33% of the vote distributed among the other 16 tree candidates.

The National Arbor Day foundation wishes to thank everyone who voted or encouraged others to take part in this historic process, which marked the first time that the entire American public has been able to state their pick for a national emblem.★

For more information: www.arborday.org

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu ***July 2001***

Forestry Bills in Congress

Two bills have been introduced in the U.S. Congress that would be of interest to forest landowners.

Reforestation Tax Act (HR 1581) – reintroduced in the U.S. House of Representatives by Rep. Jennifer Dunn (R-WA). The bill amends the Internal Revenue Code of 1986 to modify provisions relating to the treatment of forestry activities by reducing the capital gains tax paid on timber for individuals and corporations by 3% each year the timber is held, up to a maximum reduction of 50%. The bill also would allow the landowners to take a 10% Investment Tax Credit on the total amount of reforestation expenses (currently limited to $10,000) and shortens the amortization period from 7 to 5 years.

Timber Tax Simplification Act (S 567 & HR 1341) – introduced by Sen. Jeff Sessions (R-AL) and Rep. Mac Collins (R-GA). This bill corrects an inequity in Section 631 (b) of the Internal Revenue Code. Under current law, private nonindustrial landowners who are occasional sellers of timber are often classified by the IRS as dealers, which ensures they must comply with the rules of the IRC 631 (b) in order to obtain capital gains treatment of income from the sale of timber. Section 631 (b) requires a seller to retain an economic interest in their timber until it is harvested. The bills introduced in the Congress would remove this requirement, allowing lump sum timber sales to qualify for capital gains treatment.★

For more information: www.house.gov/house/Legproc.html

Inside This Issue . . .

Outstanding Tree Farmers

William Mack "Bill" and Anita Runnels of Atlanta, Texas, have been named the 2001 Outstanding Tree Farmers of the Year by the Texas Forestry Association. The Runnels' original Tree Farm is located in Harrison County, but they also own timberland in Marion and Cass Counties for a total of 1,126 acres.

"A Tree Farm is living proof that a well-managed forest is a better forest," said Ron Hufford, Executive Vice President of the Texas Forestry Association. "The Runnels deserve to be recognized for their many years of excellent forest management and their commitment to forest stewardship," he said. The Outstanding Tree Farmer of the Year competition recognizes private landowners for the exceptional job they are doing of enhancing the forest on their property. Winners are also chosen based on their efforts to foster and promote the practice of sustainable forestry to other landowners and the public. Bill and Anita Runnels were one of two regional nominees for the title, and were chosen by the Texas Tree Farm Committee for their outstanding accomplishments as tree farmers. The Runnels were nominated by their consulting forester, Gary Price, who has been involved in the Texas Tree Farm program for a number of years.

To be a Certified Tree Farmer, a landowner must manage his or her forest in an environmentally sound manner in accordance with the American Tree Farm System's standards and guidelines. "Tree Farmers provide Americans with a renewable supply of essential timber and wood products," Hufford said. "Their forests help clean the air we breathe, protect the watersheds we depend upon, and provide homes for wildlife. By constantly seeking expert advice on sustainable forestry practices, Tree Farmers like the Runnels make good decisions for their land that will sustain their forest for generations to come."★

For more information: Texas Forestry Assoc., (936) 632-8733; www.texasforestry.org/programs.htm

What is Carbon Sequestration?

Did you know that planting trees can actually help clean the pollutants from the atmosphere? Not only that, one day soon you might get paid to do it!

Because of the tremendous worldwide increase in the burning of fossil fuels to produce energy, approximately 6 billion tons of carbon dioxide is now released into the atmosphere each year.

During the process of measuring the amount of carbon dioxide leaving the earth's surface and then the concentration actually in the atmosphere, scientists came to a startling revelation: of the 6 billion tons of gas emitted into the air each year, only 3 to 4 billion tons actually amass there. Until recently, scientists were not sure where the "missing" gasses went. Studies by researchers at Princeton University, however, have revealed that carbon uptake by plants, primarily trees, accounts for a large majority of this absorption. This process is called carbon sequestration.

As they grow, trees absorb carbon dioxide from the atmosphere at a rate that will slow as they mature. The cyclical renewing of our forest, therefore, is essential if we hope to continue the rate of sequestration we currently enjoy.

Proposals have been made to monetarily compensate farmers for each ton of carbon dioxide they can sequester. Other alternatives propose allowing the large, carbon-emitting companies to "hire" farmers to offset the emissions they cause, thus neutralizing their pollution. American Forests, based in Washington, DC, states that planting only 30 trees per year per person will negate the annual emissions caused by the average U.S. citizen.

Sequestering the carbon from the atmosphere is just one of the many reasons that foresters and forest landowners are some of the most significant environmental stewards in our society.★

For more information: International Paper Nurseries & Orchards "Tree Lines." E-mail: Supertree.supertree@ipaper.com

Hypoxylon Canker - Another Consequence of the Drought

Hypoxylon canker is a fungus that causes cankers and death of oak and other hardwood trees. The disease is common in East Texas and all across the southern United States. The fungus does not invade relatively healthy trees, but the hypoxylon fungus will readily infect the sapwood of a tree that has been damaged, stressed or weakened. Natural and man-caused factors that can weaken a tree include defoliation by insects or leaf fungi, saturated soil, fill dirt, soil compaction, excavation in the root zone, removal of top soil under the tree, disease, herbicide, drought, heat, nutrient deficiencies, competition or overcrowding, and other factors.

Hypoxylon canker activity usually increases when prolonged drought occurs. It is difficult for hypoxylon canker to develop in wood that has a normal moisture content. However, any of the factors listed above could weaken or stress trees, causing the moisture content of the wood to reach levels low enough for the hypoxylon fungus to develop. Once hypoxylon actively infects a tree, the tree will likely die.

An early indication that hypoxylon canker may be invading a tree is a noticeable thinning of the crown. Also, the crown may exhibit branch dieback. As the fungus develops, small sections of bark will slough from the trunk and branches and collect at the base of the tree. Where the bark has sloughed off, tan, olive-green or reddish-brown, powdery spores can be seen. By the time the spores become visible, the tree is dead. In 4-8 weeks, these tan areas will turn dark brown to black and become hard, having the appearance of solidified tar. After several months, the areas will become a silver-gray color.

Probably all oak trees are susceptible to hypoxylon canker. In addition, elm, pecan, hickory, sycamore, maple, beech, and other trees may be infected. The fungus spreads by airborne spores that apparently infect trees of any age by colonizing the inner bark.

There is no known control for hypoxylon canker other than maintaining tree vigor. Supplemental watering is recommended during drought periods. Also, avoid damaging tree roots in construction areas.★

For more information: Joe Pase, TFS, Pest Management, (936) 639-8170, or jpase@tfs.tamu.edu.

Bits · and · Pieces

Landowner Meetings Dealing with Stewardship Issues:

Houston County Forest Landowners Meeting
- July 28, 2001, in Crockett. For more information, call (936) 544-7798 (Texas Forest Service, Crockett).

21st Century Texas Forestry Workshop

Timber Marketing and Harvesting
- July 20 & 21, 2001, from 9:00 am – 3:30 pm.
Locations: Beaumont, College Station, Commerce, Dallas, Nacogdoches, Overton, Texarkana, The Woodlands.
For more information, call Mike Murphrey, Texas Forest Service, at (903) 856-7181.

❖ Learn what you can do to prevent and control forest pests that affect pine trees in East Texas. Find the "Guideline for Managing Pine Pests" on the TFS website at http://txforestservice.tamu.edu. Click **on Forestry Education**, then Insects and Diseases, then Guidelines for Prevention and Control . . .

❖ Established in 1941, the American Tree Farm System is the oldest and largest forest certification program in the United States. Today, more than 65,000 Certified Tree Farmers are managing 85 million acres of forest.

❖ There are over 3,000 Tree Farms in Texas that together encompass more than 4.2 million acres.

❖ Since its inception in 1996, a total of 117 youths have received training in the Bobwhite Brigade. The graduates of the first four Brigades presented 774 educational programs to local civic clubs, schools and landowner groups.

WE WISH TO THANK THE FOLLOWING CONTRIBUTORS TO THIS QUARTER'S NEWSLETTER:

Ron Hufford, TFA, Lufkin, TX
Susan Stutts, TFA, Lufkin, TX
Chad Fowler, IPCo, Ridgland, MS
Joe Pase, TFS, Lufkin, TX
Scotty Parsons, TPWD, Nacogdoches, TX
John Rosenow, NADF, Lincoln, NE

Bobwhite Brigade

The East Texas Bobwhite Brigade is a conservation education program aimed at training high school youth (14-17 years old) in wildlife conservation and leadership skills. Caders undergo extensive training in quail biology, ecology and human dimension aspects of wildlife conservation, as well as public speaking, critical thinking and program development.

The Bobwhite Brigade is a 5-day camp designed to teach parucipants about quail anatomy, biology, habitat management, population dynamics, conservation, and hunting techniques. They will also learn about photography, entomology, botany, firearm safety, and leadership skills. A major component of the Bobwhite Brigade involves the ability to communicate orally and in writing information learned at the camp. Graduating cadets will learn how to present educational programs pertaining to wildlife conservation and quail management.

. . . a classic example of cooperation among resource agencies, private conservation groups and grassroots supporters.

Following completion of the camp, all students will be expected to present a minimum of one educational program on wildlife conservation and/or quail management to each of the following audiences: elementary students, secondary school students and adults. The student who presents the most documented public presentations (speeches, interviews, written essays for newspapers and/or periodicals, etc.) during the 9 months following their camp experience receives a $1,000 college scholarship; second place wins a $500 college scholarship.

The Bobwhite Brigade has been a classic example of cooperation among resource agencies, private conservation groups and grassroots supporters. The human capitol that is being developed by the Bobwhite Brigade will pay conservation dividends for many years to come.

The 6th Battalion of the Bobwhite Brigade will be held July 29-August 2, 2001 at the Pineywoods Conservation Center near Broaddus, Texas.★

For more information and to request an application: Scotty Parsons, TPWD, (936) 569-1632 , or e-mail scottyparsons@sfasu.edu

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- Rich Dottellis, TFS, Kountze, Texas
- Jay Hein, TFS, Lampasas, Texas
- Brian Scott, TFS, Amarillo, Texas
- Pete Smith, TFS, College Station, Texas

2001 Farm Bill

The House Committee on Agriculture, with farmers, commodity and producer groups, has prepared for the U.S. House of Representatives to consider the Committee's version of the next farm bill, "The Farm Security Act of 2001" (H.R. 2646) during September.

Highlights of this year's bill include a forestry title that has a forestry incentives program that includes $15 million per year of mandatory spending. This is the first time forestry has received mandatory funding.

It also includes: a reauthorized and expanded Renewable Resources Extension Act (RREA) Program; forestry as a more prominent feature of many of the traditional agriculture programs; a significant set of authorizations for communities and wildfire protection; biomass energy production; and stewardship contracting.★

For more information:
http://agriculture.house.gov/farmbill.htm

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu *October 2001*

Tariff on Canadian Lumber

The Bush administration announced August 10 that it would impose a 19.3 percent penalty tariff on softwood lumber imported from Canada in retaliation for what the adminsitration said were unfair government subsidies given to the Canadian lumber industry.

The 19.3 percent tariff, which is preliminary until the Commerce Department makes a final ruling in December, took effect August 20. It will be retroactive to mid-May because Canadian lumber imports have increased 30 percent since the five-year Canada-U.S. Softwood Agreement expired at the end of March. That agreement had invoked quotas on Canadian softwood lumber imports.

The disagreements between the two countries revolve around the stumpage fees that Canadian provinces charge timber companies for logging on government lands. The U.S. forest products industry contends the fees are set extremely low, giving Canadians an unfair competitive advantage. Conversely, U.S. forest products companies and Canadian firms in the Atlantic Coast Maritime Provinces rely on privately owned trees for their timber supply.

Canadian producers deny accusations of unfair government subsidies. They say their lumber should be shipped into the U.S. duty-free.

Consumer and lumber user groups in the U.S. were against the ruling, citing possible increases in prices.★

For more information: www.safnet.org/archive/canada901.htm

Inside This Issue . . .

Forest Survey Program

This summer, the Texas Forest Service teamed with the Southern Research Station of the U.S. Forest Service to implement an unprecedented forest survey program to measure the status of all forest resources in the state.

The U.S. Forest Service conducted previous surveys in East Texas in 1935, 1955, 1965, 1975, 1985 and 1992. Increased demand for forest products has stimulated more intensive timberland management and thus shortened timber rotation rates in the South, which necessitates more frequent data collections.

A BIG State to Cover

In the 1998 Farm Bill, Congress mandated that each state conduct an annual forest survey and, for the first time, the survey must include the entire state.

The survey results will provide current information about Texas' forests which will aid in determining potential fire hazards, land use changes, reforestation accomplishments and the future timber supply for economic and community development.

The Plot Thickens

During the first 2 years, survey crews will measure all forested and non-forested plots in East Texas. (A plot is about one-tenth of an acre.) Then the program will go statewide, surveying 20% of the state each year for 5 years, then yearly updates after that.

Texas has about 3,840 forested plots and 24,410 non-forested plots. Two-person survey crews will measure plots in East Texas. In other parts of the state, where there are more non-forested plots than forested plots and they are scattered over vast areas, cutting-edge technologies such as remote sensing, Geographic Information Systems and modeling based on satellite photographs will be utilized. The first report on East Texas forests is expected by the end of 2003.★

For more information: Dr. Weihuan Xu, Texas Forest Service, (979) 458-6650 or wxu@tfs.tamu.edu

The Value of Deadwood

Most of us recognize the importance of living trees: they provide wildlife habitat, oxygen, timber, beauty and many other assets. However, dead and deteriorating trees are also vital elements of healthy forests. They release nutrients, prevent erosion, store moisture, improve soil structure and supply food and shelter for wildlife. Good forest stewardship, then, requires us to consider both living trees and deadwood as vital, interacting components of the forest ecosystem.

Many wildlife species use tree cavities for sanctuary against predators, extreme temperatures, unfavorable weather, and for nesting and brooding. Cavity nesters play a significant role in forest ecosystems by preying on harmful insects and helping to disperse seeds.

Standing dead trees (snags) are also favorite perching sites for flycatchers, hawks, owls and, along the water's edge, kingfishers, ospreys and bald eagles. Nuthatches and some bats and salamanders use spaces between loose bark and tree trunks for roosting. Woodpeckers and grouse use the resonant qualities of deadwood for drumming – a communication technique used to indicate territorial boundaries and attract mates.

Downed, decaying wood provides cover, foraging habitat and egg laying sites for salamanders and insects, as well as providing protection for small mammals, amphibians and reptiles.

By providing habitat and nutrition for organisms such as fungi, centipedes, beetles and ants (which in turn provide food for larger animals), deadwood plays a key role in forest food webs.

As they decompose, rotting logs slowly release nutrients that help nurture future tree growth.

Logs and branches that fall into streams and rivers help diversify habitat by creating deep pools, shady areas and shelter, thus supporting a greater variety of fish, invertebrates, algae and other organisms.✶

For more information: www.for.gov.bc.ca/research/deadwood/

A Tribute to a True Conservationist

On September 6, 2001, a dedication was made in memory of Mr. Ben Upchurch at the Loyall and Ginger Turner farm west of Spearman in the Texas Panhandle.

Upchurch's 68 years of conservation service was commemorated with a sign being placed at a Living Snow Fence, located on the Turner farm, where Upchurch assisted in establishing and maintaining the site. Upchurch passed away on February 8, 2001. He was known by family, friends and coworkers as a steward of the land. His work was described as a diligent effort in helping to protect our precious natural resources and maintain our quality of life.

Upchurch was a Texas native and started his conservation career in 1933 with the Civilian Conservation Corps (CCC). He was later hired by the Soil Conservation Service (SCS), now the USDA-NRCS, in 1942. He retired from SCS in 1985 only to continue his conservation efforts working for the Hansford County SWCD. He retired from the SWCD in 1996, but he remained involved with conservation by volunteering his time through the NRCS and SWCD.

NRCS Natural Resources Manager, Rick Harrell said, "Mr. Upchurch had a mission in life to provide conservation service to help private landowners and operators protect their soil, water, wildlife and related resources."

The Living Snow Fence was one of many conservation projects Upchurch helped complete. It is located between Spearman and Gruver in Hansford County in top of the Texas Panhandle. The trees and shrubs were planted on the north side of the road to manage blowing snow, act as a living screen and enhance wildlife habitat. It consists of two rows of Rocky Mountain juniper and two rows of shrubs - skunkbush sumac and nanking cherry. Each row is parallel and measures 880 feet long. Upchurch maintained the site by hoeing weeds and watering the trees to aid in the establishment of the living fence. The Living Snow Fence project was a partnership among the Hansford County SWCD, USDA-NRCS and the Texas Forest Service.✶

For more information: Quenna Terry, NRCS, (806) 785-5644 ext. 3, or quenna.terry@tx.usda.gov

BITS · AND · PIECES

LANDOWNER MEETINGS DEALING WITH STEWARDSHIP ISSUES:

Rusk/Smith County Forest Landowners Seminar – Nov. 10, 2001, in Overton. For more information, call (903) 657-0511 (Texas Forest Service, Henderson) or (903) 561-7020 (Texas Forest Service, Tyler).

CONTINUING EDUCATION FOR LOGGING PROFESSIONALS:

BMP WORKSHOPS	OCT. 23 & 26	LUFKIN
PHASE II WORKSHOP	NOV. 9	DIBOLL

–FOR REGISTRATION, CALL TFA AT (936) 632-8733

✓ TEXAS FORESTRY ASSOCIATION ANNUAL MEMBERSHIP MEETING – NOV. 14-16, 2001 AT THE TREMONT HOUSE IN GALVESTON, TEXAS. Contact TFA at (936) 632-8733 or tfa@lcc.net.

✓ 15TH TEXAS TREE CONFERENCE – OCT. 24-26, 2001 AT THE WACO CONVENTION CENTER IN WACO, TEXAS.

Leading speakers will present the latest on planting, caring for and protecting the trees and forests where we live.
→ Special this year – a concurrent track in Spanish. Speakers will cover topics such as pruning, planting, insects, diseases and hazard evaluation.
Contact Mike Waltersheidt at (512) 587-7515 or mbwalter@totalaccess.net.

✓ FOREST HERBICIDES: RESEARCH & DEMONSTRATION II – DEC. 4-5, 2001 AT THE ARTHUR TEMPLE COLLEGE OF FORESTRY, NACOGDOCHES, TEXAS.

Application re-certification credits will be offered.
Contact Misti Compton at (936) 468-3301, or visit http://www.sfasu.edu/forestry/landowner/herbicide.htm.

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Rance Scott Harmon, PSU, University Park, PA
Quenna Terry, NRCS, Lubbock, TX
Vaessa Bullwinkle, ATFS, Atlanta, GA
Society of American Foresters, Bethesda, MD

Tree Farm Review

PricewaterhouseCoopers LLP is conducting a Certification Process Review of the American Tree Farm System at the national, state and field levels. This management review is a precursor to a full 3rd party audit. It is designed to analyze the strengths and weaknesses of the System so that the Tree Farm Program can continue to improve, grow and gain international acceptance.

Forest certification, i.e. identification of a forest that is well managed and sustainable, is a means of promoting better forest management. It also assures the public that forest managers are carrying out environmentally sound plans and practices. The American Tree Farm System is the oldest and largest certifier of private non-industrial forestlands in the United States.

Tree Farm entered into a mutual recognition agreement with the American Forest & Paper Assoc.'s (AF&PA) Sustainable Forestry Initiative (SFI)℠ program in May 2000. In the agreement, SFI recognizes wood sourced from Tree Farms as certified, and vice versa.

. . . a source of certified wood from non-industrial private forestlands.

Tree Farm provides AF&PA member companies with a source of certified wood from non-industrial private forestlands. As such, wood procured from certified Tree Farms may be counted as part of a mill's SFI certified inventory. In addition, AF&PA member companies can count stronger active participation in the Tree Farm Program toward SFI's requirement of broadening sustainable forestry practices among non-industrial private landowners.

Forest certification is the independent verification of the practice of sustainable forestry, as measured against a particular set of standards and performance measures. The American Tree Farm System, sponsored by the American Forest Foundation, is one of several certification programs available to forest landowners in the U.S. Others include AF&PA's SFI, the Forest Stewardship Council (FSC) and the National Forestry Association's Green Tag programs. Each program has its own set of criteria used to verify whether a forested property is eligible for certification.✶

For more information: 1-888-889-4466, or nicole_hullman@affoundation.org

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- Brian Scott, TFS, Amarillo, Texas
- Pete Smith, TFS, College Station, Texas

Southern Forest Resources

The Southern Group of State Foresters welcomes the release of the Southern Forest Resource Assessment. For the first time ever, citizens of the South have a credible and objective report of the present condition and probable future of their forests.

Some of the topics covered include:

- Human Influences on Forest Wildlife Habitat
- Effects of Forest Management
- Policies, Regulations and Laws
- Local Economic Impacts of Forests
- Forestry Impacts on Water Quality

Electronic copies of the draft report and summary can be obtained at the Assessment's official website listed below or by contacting your State Forester.★

For more information: www.srs.fs.fed.us/sustain

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu ***January 2002***

Sustainable Forests Report

The USDA Forest Service will publish in 2003 a comprehensive national report on the state of the nation's forests. The process of collecting and assessing data for the report is under way, and public input is being solicited to ensure that the concerns and interests of non-federal entities are considered. There will be public workshops in spring 2002 to elicit input about the national report's format and content.

At a November 15, 2001 meeting of the Roundtable on Sustainable Forests, Forest Service Chief Dale Bosworth shared his expectations for the report. "This benchmark report will greatly affect what we know and understand and will have major implications for how we work together to conserve and manage natural resources today and for future generations."

The report will organize and summarize data under a set of 7 criteria and 67 indicators (referred to as "C&I") for sustainable forest management. The C&I provide a common framework for collecting and organizing information and to enhance informed dialogue, policy-making and forest management activities at all levels.

Members of the roundtable say that the report is not an endpoint but rather part of an ongoing process to achieve improved forest conditions and sustainable forest management in the United States. The report will be the first in an ongoing series and will form a benchmark for assessing future progress in the U.S.★

For more information: www.sustainableforests.net

Inside This Issue . . .

Managing Storm Damage

In general, the following guidelines can apply to both pine and hardwood trees.

Assess Types of Damage

Breakage: Trees with less than 50% crown loss will most likely recover; trees with more than 75% crown loss are likely to die and be a greater risk for both insects and diseases; trees with 50-75% crown loss should be maintained but reevaluated in 4 to 6 years.

Uprooted: Uprooted trees will be degraded quickly by insects, stain and other fungi. Partially uprooted trees with crowns possessing leaves will last longer.

Major Wounds: If trees have wounds more than 2 inches deep and that affect more than 25% of the circumference of the tree's trunk, they are major sites for stain and decay and should be salvaged.

Bent: If cracks or fractures extend down more than 25% of the tree trunk, harvesting is recommended. Trees less than 15 feet tall with small cracks will usually straighten and recover.

Assess Salvage Potential

There needs to be sufficient quantity as well as quality of timber to attract buyers. If less than 50 trees are damaged, consider transporting trees to a sawmill for custom sawing or using a portable sawmill. For a larger number of trees, a consulting forester should be hired to mark the salvage as a timber sale and seek bids.

Maintain Good Management

Keep the stock up in stands even if this means leaving some damaged trees to occupy the sites. If damage is severe in small patches, consider small group clearcutting to remove the damaged vegetation and provide sunlight for seedlings to reoccupy the site.★

For more information: www.forestry.iastate.edu/ext/ext.html or http://txforestservice.tamu.edu/landowner_assistance/storm_recovery/trees_saved.html

Windbreak Maintenance and Renovation

Windbreaks are integral parts of many Texas farming and ranching operations. They protect man, animals, crops and buildings from hot summer winds, cold winter winds and deep snows. Windbreaks prevent soil erosion caused by wind and provide wildlife habitat.

Many windbreaks in Texas throughout the High and South Plains are old, and some are poorly designed. Often, species diversity is lacking.

Windbreak maintenance is necessary throughout the life of a windbreak to keep it growing healthy. This would include weed control, pruning, watering, fertilization and fencing (if livestock are around).

Windbreak renovation becomes necessary as a windbreak ages or deteriorates. Poor maintenance or design also leads to renovation. Renovated windbreaks should have windward rows of conifers and leeward rows of deciduous trees. Renovation includes increasing diversity, improving function, adding or removing tree and shrub rows and thinning within rows.

Questions to ask yourself when trying to decide if renovation is necessary and what to do include:

- Do the tree crowns appear healthy, vigorous and full? Are the tips of the branches not significantly touching or interlaced with adjacent trees?
- Is the windbreak composed of only one species of tree, such as all Siberian elm or all red cedar?
- What is the spacing distance between trees within the rows and between each tree row?
- Does snow drift into the area you are trying to protect?
- Does the windbreak attract a variety of wildlife?

The answers to these questions may help you decide if you need to do some thinning in the windbreak and/or possibly add different species of trees and shrubs.★

For more information: Brian Scott, TFS, (806) 353-8952 or amarillofrdpcr@tfs.tamu.edu

Prevention and Control of Pine Engraver Beetles

Pine engraver beetles (three species of *Ips*) generally limit their attacks to logging debris and stressed, weakened or damaged pine trees. They seldom bother reasonably healthy trees and tend to attack scattered single trees or small groups of 2-5 trees. Therefore, maintaining healthy trees is a landowner's best policy for preventing engraver beetle attacks.

In a forest situation, good forest management practices are also good beetle prevention practices. If direct control is needed for an infestation of engraver beetles in a forest situation, cutting and removing the infested trees is the best course of action to follow. If only a few trees are involved, doing nothing is often a good choice. Felling trees and leaving them on a site (a control tactic for another beetle called the southern pine beetle) is of no value for controlling *Ips*. In addition, trees from which the beetles have already emerged are not a concern for control. Cutting a buffer of green, uninfested trees around *Ips*-killed trees is not recommended either.

In yard situations, root damage caused by construction and drought are the two most common stress factors for pine trees. Watering trees (slow and deep) during periods of drought and avoiding damage to root systems would be good prevention options for a homeowner. Prompt removal of visibly infested trees is recommended. If a beetle-killed tree is cut, care should be taken to avoid damaging uninfested pines. Damaged trees may be more susceptible to attack by pine beetles.

Another pine bark beetle of concern in East Texas is the black turpentine beetle. This beetle readily responds to fresh pine sap (resin, pitch) associated with injured trees. Like the engraver beetles, the black turpentine beetle is not usually a serious problem because its typical attack pattern is to infest scattered trees. The black turpentine beetle is most commonly found in stumps and injured trees associated with construction or logging activity. Attacks of the black turpentine beetle are usually limited to the bottom six to eight feet of the trunk of the pine tree and a large mass of pitch or resin will usually form where each beetle attacks.★

For more information: Joe Pase, TFS, (936) 639-8170 or jpase@tfs.tamu.edu

Bits · and · Pieces

Continuing Education for Logging Professionals:

2002 BMP Workshops

Jan. 25	Marshall
Feb. 15	Lufkin
Aug. 16	Lufkin
Sept. 13	Marshall
Oct. 11	Lufkin
Nov. 8	Lufkin

2002 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

Feb. 16	Diboll
Sept. 14	Marshall

-Fee (per workshop): $10 for TFA/TLC members; $35 for non-members
-For registration, call TFA at (936) 632-8733

✓ Hardwood and Wildlife Seminar – sponsored by the Tri-County Timber Growers Association.

February 2, 2002 in Center, Texas, at the Community House on San Augustine Street
10:30 a.m. – 2:30 p.m.
Open and FREE to the public. RSVP to Becky at (936) 598-2192 or Marilyn at (936) 275-3438.

✣ Now you can buy seedlings on-line! Pine and hardwood seedlings can be purchased at the TFS seedling store at http://tfsstore.tamu.edu/onlinestore/. There is also information there to help you choose the type of seedlings you want for your particular situation.

✣ Need digital photos for a presentation? The USDA On Line Photography Center has photos for anyone to use. They are sorted into different categories, mostly dealing with agriculture. There is a forestry recreation section and wildlife section that may be of interest to those involved in forestry. Go to www.usda.gov/oc/photo/opchomea.htm.

We wish to thank the following contributors to this quarter's newsletter.

The Forestry Source, SAF, Bethesda, MD
P. Wray, J. Walkowiak, J. Kemperman, ISUFE, Ames, IA
Brian Scott, TFS, Amarillo, TX
Joe Pase, TFS, Lufkin, TX
Jack Thigpen, Don Steinbach, TCE, College Station, TX

Hunting Lease Marketing

As a hunting lease operator, understanding your resources and clientele is necessary for a solid marketing plan. Several thoughts and activities make up the hunting experience. The time the client is on your property does not stand alone, but is part of the cycle that is the entire experience. The operator can use all parts of this cycle to market the hunting experience.

Anticipation – includes the planning of the trip. The lease operator can telephone the clients to report on hunting and weather conditions. A few minutes of conversation can raise the level of enthusiasm.

Travel To – some enjoy the travel to the lease; others don't. Operators who are working with their community can have a real advantage during this phase. Community hospitality and special events can provide an added dimension to the hunting experience for the hunter, as well as benefit the community economically.

On-Site – time actually spent on the hunting site. Remember that you are managing a hunting experience for you clientele, not just selling a product. Educating your hunters on game management tactics and creatively promoting the use of these can enrich their experience. Also, there are activities other than hunting that can make the experience more complete and enjoyable. You may be able to offer other activities as well as hunting on your site. Fishing, wildlife watching, camping and hiking are other activities that may interest the hunters and others in their party.

Travel Back – anticipation and excitement are usually replaced by pleasant memories of the hunt, or dreadful anticipation of job responsibilities back home. A pleasant hunting experience can make this often unpleasant trip home a time for reflection on the satisfaction of time well spent and the beginning of anticipation of next year's return.

Recollection – recalling to memory points of the experience (good or bad) that stand out in their mind. The recollection phase serves as a starting point for the anticipation of the next outdoor recreational experience. The operator can keep clients informed throughout the year of environmental and game conditions and improvements to the operation.★

For more information:
http://texaserc.tamu.edu/catalog/query.cgi?id=98

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- Rich Dottellis, TFS, Kountze, Texas
- Jay Hein, TFS, Lampasas, Texas
- Brian Scott, TFS, Amarillo, Texas
- Pete Smith, TFS, College Station, Texas

Champion Live Oak

Many people have visited the largest Live Oak (*Quercus virginiana*) in Texas, which is located at Goose Island State Park near Rockport. But Young County can now lay claim to the largest Escarpment Live Oak (*Q. virginiana var. fusiformis*) in Texas and the country!

Big Tree Registry Coordinator Pete Smith of the Texas Forest Service (College Station) and Matt Grubisich, TFS Urban Forester in Abilene, traveled to a ranch near Graham, Texas, to measure this behemoth. The tree scaled out a whopping 357 inches in circumference, 48 feet in height and an average crown spread of 80 feet, for a tree index of 425 points, making it the largest of its kind on the planet (that we know of)!

This eclipses the former champ – which hasn't been challenged much in recent years – by over 60 points! Matt Grubisich will present the owner and nominator of this tree with Big Tree certificates.★

For more information: Pete Smith, TFS, pds@tfs.tamu.edu

FOREST STEWARDSHIP BRIEFINGS

Timber ✪ Wildlife ✪ Water Quality ✪ Soil Conservation ✪ Best Management Practices ✪ Recreation ✪ Aesthetics

TEXAS FOREST SERVICE P. O. Box 310 Lufkin, Texas 75902-0310 e-mail dwork@tfs.tamu.edu *April 2002*

Progress of the 2002 Farm Bill

With the House and Senate having passed different versions of the 2002 Farm Bill (HR 2646 and SB 1731), Representatives and Senators have been meeting in conference to hammer out their differences and work out a final bill. Members on the Conference Committee expect to make the final farm bill decisions in early April 2002. The current farm bill expires at the end of September 2002.

Forestry is considered separate from the conservation programs of the bill, budgeted at $17.2 billion of the total FY2002 budget resolution figure of $73.5 for farm spending through 2011.

House Version

HR 2646, the Farm Security Act of 2001, includes provisions addressing private forestland needs such as:

- Replacement of the Forestry Incentives Program (FIP) and the Stewardship Incentives Program (SIP) with the **Forest Land Enhancement Program** (FLEP).
- Reauthorization of the **Renewable Resources Extension Act** (RREA), amended to include a new **Sustainable Forestry Outreach Initiative,** which would serve to educate private forest landowners on the benefits of practicing sustainable forestry and the importance of professional forestry advice in achieving their objectives.
- An **Enhanced Community Fire Protection** program.

Inside This Issue . . .

Senate Version

SB 1731, the Agriculture, Conservation, and Rural Enhancement Act of 2001 (the ACRE Act), includes:

- A **Sustainable Forest Management Program** to provide technical, educational and financial assistance to nonindustrial private forest landowners.
- A **Sustainable Forestry Outreach Initiative** to educate forest landowners on the principles of sustainable forestry and public and private sector resources available to them.
- A **Sustainable Forestry Cooperative Program** to support the development and implementation of sustainable resource management practices.
- A **Watershed Forestry Assistance Program** to provide states with technical, financial and related assistance to support forest stewardship activities and the prevention of water quality degradation on non-Federal forestland.
- Reauthorization of **FIP** for the next five years.
- A **Community and Private Land Fire Assistance Program** to increase landscape-level wildfire protection and educate homeowners and communities about fire damage prevention.
- Authorization of **Long-term Forest Stewardship Contracts for Hazardous Fuel Removal**.
- A **Wildfire Prevention and Hazardous Fuel Purchase Pilot Program** authorizing grants to persons that operate biomass-to-energy facilities and persons in rural communities that are seeking ways to improve the use of hazardous fuels.
- A **Suburban and Community Forestry and Open Space Initiative** grant program to preserve private forestland and contain suburban sprawl.★

For more information: http://pinchot.org/pic/farmbill/

Wildlife Instead of Weeds

Throughout West Texas and the High Plains, producers use crop circles with center pivot irrigation to grow agricultural crops. This leaves 28 acres, 7 acres per corner, out of production. So what does one do with these "empty" corners? Why not plant wildlife food plots?

By planting multiple rows of trees and shrubs in an L-shape in these corners, you can provide sufficient habitat (food and cover) for more wildlife to survive. Other than attracting more wildlife to the tract, food plots provide some wind protection to the crop in the pivot, add an aesthetic quality to the landscape and diversify the farmstead.

Since the Texas Panhandle and South Plains only receive about 20 inches of rain per year, drip irrigation and weed control are essential in creating successful food plots. This, coupled with proper land conservation practices, such as crop residue and brush management and timely prescribed burns, will promote good habitat for wild game birds and animals for years of hunting and observing to come.

For free technical assistance or for more information regarding wildlife seedling packets, contact the Texas Forest Service in Amarillo at (806) 353-8952 or the TFS West Texas Nursery in Lubbock at (806) 746-5801.★

For more information: Brian Scott, TFS, (806) 353-8952 or amarillofrdper@tfs.tamu.edu

Uses for Small-Diameter Trees

Small-diameter and underutilized (SDU) material refers to the timber that is left in the forest because it is not economical to remove, or local capacity to process it does not exist. SDU material also includes the dense understory present as a result of years of successful fire suppression. It has become apparent that there are many beneficial forest management reasons why this material should be removed, including reducing fire hazards, altering the stand species and quality mix to a more desirable composition, providing healthier wildlife habitat, reducing risks from insects and disease, and protecting watersheds. If cost-effective and value-added uses for the thinned SDU material could be found, forest management costs would be offset.

During the past 5-7 years, there has been tremendous activity within universities, federal research institutions, nonprofit groups, rural communities, and others to explore and evaluate the potential of SDU material, both for traditional lumber and value-added uses. Several programs are examining the existing technology, as well as new technologies that can improve the economics. The following are some of these potential uses:

Dimension and Nondimension Softwood Lumber – for yard lumber (trim, siding, flooring, paneling, shelving); structural lumber (2-by-4s, joists, I-beams); factory and shop lumber (cut into smaller pieces for manufacturing into secondary products.

Engineered Wood Products – can even use previously non-commercial species for laminated veneer lumber, oriented strandboard, glued-laminated beams.

Structural Roundwood – 4- to 6-inch DBH range in particular for roundwood trusses, beam-column elements for post and frame building systems, pile foundations for residential structures.

Wood Composites – utilize fibers, particles, flakes, and strands for particleboard, fiberboard, oriented strandboard, oriented strand lumber.

Woodfiber/Plastic Composites – can use low-quality species for products such as highway signs.

Woodfiber Products – filters for removing water pollutants such as pesticides, herbicides, toxic heavy metals, oil and grease, phosphorus, and toxic organic compounds; fiber mats for erosion control.

Pulp Chips – kraft paper, other papers.

Compost, Mulch – increase soil fertility.

Energy – fuel for power-generating plants, institutional heating facilities, home heating.★

For more information:
http://www.fpl.fs.fed.us/documnts/pdf2001/levan01a.pdf

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Continuing Education for Logging Professionals:

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Aug. 16	Lufkin
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Nov. 8	Lufkin

2002 Phase II Workshops (Silviculture, Endangered Species, Wildlife, Wetlands)

Sept. 14	Marshall

-Fee (per workshop): $10 for TFA/TLC members; $35 for non-members
-For registration, call TFA at (936) 632-8733

❖ Looking for the latest on agriculture, consumer issues or public policy? E-answers is a searchable website that provides reliable, research-based information on a wide range of subjects including forestry, environment, water quality, and communities. Information is searchable by region or keyword. This is a dynamic online resource that brings university information and education into your home or office. To check it out, go to http://128.227.242.197/.

❖ Fire ants giving you problems? Go to this website – http://fireant.tamu.edu – to get information on controlling this insect pest. Here you'll find fact sheets, slide shows, newsletters, and photographs that cover topics such as: controlling fire ants in the spring, the Texas Fire Ant Project, the Texas Two-Step method of controlling fire ants, and common insecticides for controlling fire ants.

❖ The "Backyard Conservation" page on the Natural Resources Conservation Service (NRCS) website has fact sheets on ways you can practice conservation in your backyard. Topics covered include: backyard ponds and wetlands, mulching, composting, planting trees, pest management, and wildlife habitat. Find all this information at http://www.nhq.nrcs.usda.gov/CCS/Backyard.html.

We wish to thank the following contributors to this quarter's newsletter:

Brian Scott, TFS, Amarillo, TX
Susan LeVan-Green, Jean Livingston, USFS, Madison, WI
Misti Compton, SFASU, Nacogdoches, TX
Pete Smith, TFS, College Station, TX

The Silvopastoral System

As a forest landowner/agricultural producer, what can you do to diversity your operations and still make optimal use of your land? Silvopastoral Forestry combines growing forest trees for wood products and raising hay or grazing livestock on the same acreage.

How?

A workshop titled "Opportunities in Agroforestry: The Silvopastoral System" at the Arthur Temple College of Forestry of Stephen F. Austin State University in Nacogdoches, Texas, will answer this question. The workshop is Saturday, June 8, 2002.

Topics will include:

* What is Silvopastoral Forestry?
* Experience with Silvopastoral Forestry
* Wood Quality Concerns
* Economic Considerations
* Operational and Equipment Considerations
* Grazing Domestic Livestock
* Water Quality Concerns
* Soil Treatments (fertilizer – including use of poultry litter, herbicides and insecticides)
* Carbon Sequestration
* Pine Straw Baling
* Wildlife Considerations
* Aesthetic Considerations

Who should attend?

This conference will provide important information to a wide variety of individuals including cattle producers, forest landowners, professional land managers, extension service personnel, state and federal land managers, and other persons interested in diversifying land operations to develop their maximum value. Agricultural chemical professionals and equipment providers will find the workshop informative and useful as well.

Lunch will be provided. Continuing education credits will be available.★

For more information:
http://www.sfasu.edu/forestry/landowner/agro_forestry.htm

Distribution of the *Cypress Creek Basin BMP Informer* is provided free of charge to forest landowners of Camp, Cass, Franklin, Harrison, Marion, Morris, Titus, Wood and Upshur Counties. Funding has been provided through cooperation of the Environmental Protection Agency (EPA), the Texas State Soil & Water Conservation Board (TSSWCB) and the Texas Forest Service (TFS). PLEASE ADVISE US IF YOU WISH YOUR NAME REMOVED FROM OUR MAILING LIST. *The Texas Forest Service is An Affirmative Action/Equal Opportunity Employer Committed to Excellence through Diversity.*

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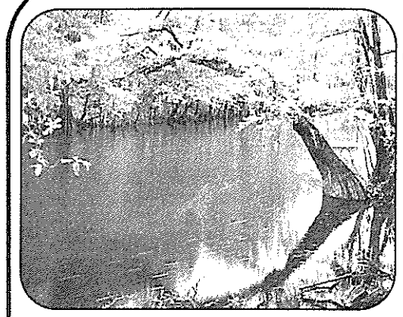


Cypress Creek Basin BMP Informer

Quarter I, 20

Serving Camp, Cass, Franklin, Harrison, Marion, Morris, Titus, Wood and Upshur Counties

Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 tfsbmp@inu.net

Welcome to the first issue of a quarterly newsletter designed especially for Northeast Texas Forest Landowners.

We all want clean water for ourselves as well as for our children and grandchildren. In Texas, as a forest landowner, you have a special opportunity to protect water quality.

By using *voluntary* Best Management Practices (BMPs) on your forestland, you can continue to avoid unnecessary government regulations while providing clean water.

With a philosophy of protecting water quality in the forests of East Texas by non-regulatory means, the articles in this and future issues will provide you with information that you can use to make informed land management decisions based on your personal objectives. ✓

Did you know...
Forests produce the cleanest water of any agricultural land use.

"Sedimentation into a creek is reduced when BMPs are used. This avoids the potential loss of valuable topsoil. Without good planning, erosion and siltation are not controlled.

Good planning avoids sedimentation of creeks and improves water quality. I hate to see anybody go into a timber harvest operation without implementing good BMPs."

Mr. Chad Menefee, Titus County Forest Landowner, on the importance of BMPs for reducing stream sedimentation.

"Through my experience, proper and timely thinning and the use of a professional enhanced both the residual timber and the quality and value of the stand. By using a professional forest manager, you enhance harvesting operations, which include BMPs for better water quality."

Comments on the importance of professional assistance and the use of BMPs by Mr. Ray Thigpen, Morris County Forest Landowner.

If you would like to share your views of Best Management Practices for protecting water quality with thousands of forest landowners in the Cypress Creek Basin, just send us a quote. Please keep your quote to about 75 words. Additional comments are certainly welcome. Send your quote by any of the means listed in the masthead. We look forward to hearing from you!

Watch Word... TMDL

A Total Maximum Daily Load or TMDL is the total amount of pollution (load) that a stream can handle in any given day without harming its beneficial uses, such as swimming, drinking or fishing.

Land disturbing activities such as farming, mining, highway construction and forestry have the potential to cause erosion and stream sedimentation. Sedimentation is only one kind of pollution that TMDLs address. Others include heavy metals, a lack of oxygen in the water and even bacteria. Basically anything in the water that makes it unsuited for its intended use is a pollutant.

Best Management Practices, or BMPs, are specially designed practices that reduce and eliminate this type of water pollution. For example, we have all seen the silt fences along the roadway during highway construction. There is a set of voluntary guidelines designed specifically for forestry in Texas.

These guidelines provide a common sense solution to reduce water pollution. The most important BMP is the Streamside Management Zone, or SMZ, which is discussed in detail in the column to the right. Other BMPs include properly constructed forest roads and stream crossings. ✓

Improving My Land

Streamside Management Zones

A great way to improve and protect your forestland is by creating a Streamside Management Zone, or SMZ. An SMZ is a protective buffer of vegetation along a stream or creek. As a general rule of thumb a 50-foot buffer of trees on both sides of the stream is usually sufficient for protecting water quality.

Streamside Management Zones are easily visible in this photo.

SMZs help improve your land by:

- Reducing the amount of sediment or dirt that may get into a stream
- Providing shade to maintain a consistent water temperature for the fish and the insects that they eat
- Stabilizing stream banks and protecting them from erosion
- Providing habitat and travel corridors for wildlife.

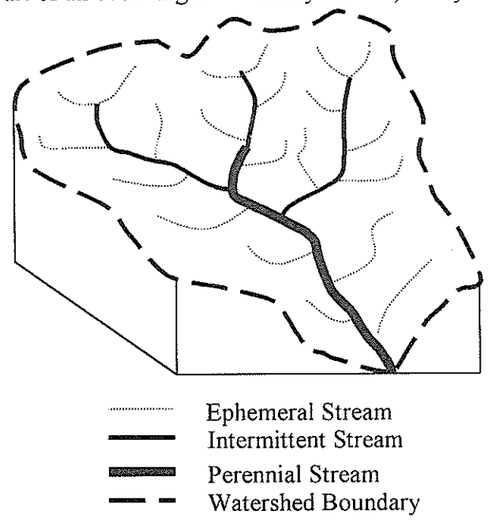
Don't forget that you can harvest (thin) in an SMZ and still be within the voluntary guidelines. Just leave 50% of the shade for a distance of 50 feet from the bank on both sides.

Ask your logging contractor or other forestry professional about SMZs. Your land will benefit in many ways and you can show your commitment to being a good "Land Steward." ✓

What is a Watershed?

A watershed is an area of land that drains rainfall into a stream or lake. They are generally named for the water body that is at the end, or downhill, portion of the area being considered. Watersheds vary considerably in size. For example, Little Cypress Creek drains an area of 718 square miles. However a small stream on your property may drain only a hundred acres. Keep in mind that your small stream flows into a larger stream that would be part of an even larger watershed such as the Little Cypress.

While forested watersheds provide the highest quality water, some forestry activities have the potential to lead to erosion. The use of Best Management Practices keeps the soil in place in the watershed, preventing siltation into streams.



A watershed, depicted above, is an area of land that drains rainfall into a stream or lake.

The figure to the right depicts a three-dimensional watershed with its associated streams. An ***ephemeral*** stream, sometimes called a drain or swag, carries water only during and for a short time after a rain. An ephemeral stream may or may not have a well-defined channel. An ***intermittent*** stream carries water at least 30%, or about four months, of the year continuously, but not year-round. Intermittent streams have well-defined channels with scoured bottoms, a result of the flow. A ***perennial*** stream flows year-round, but may pool during drought conditions.

These distinctions become important when deciding where Streamside Management Zones are recommended. As a general guideline, SMZs should be used along intermittent and perennial streams. These are the recommended minimum voluntary guidelines. Your common sense should guide your final determination.

The Cypress Creek Basin is made of three large watersheds-the Little Cypress, Lake O' the Pines and Caddo Lake. The Little Cypress watershed is made of the following creeks: Big Cypress Bayou, Caney Creek, Lilly Creek and Little Cypress Bayou. It drains 1,673 acres and has 129 lakes and ponds within its boundary. Lake O' the Pines watershed includes the following creeks: Big Cypress Creek, Boggy Creek, Brushy Creek, Ellison Creek, Harts Creek, Prairie Creek, Swauano Creek and Tankersley Creek. This watershed drains an area of 42,459 acres and includes 225 lakes and ponds. Caddo Lake watershed includes these creeks: Big Cypress Bayou, Black Cypress Bayou, Deboldin Creek, Flat Creek, Frazier Creek, Harrison Bayou, James Bayou, Jims Bayou, Kelly Creek, Kitchens Creek and Little Cypress Bayou. This watershed drains 28,884 acres and has 158 lakes and ponds.

You can find much more information about your watershed by visiting the Environmental Protection Agency's (EPA) World Wide Web page at http://www.epa.gov/surf/.

Another great source of information on the Web is the Northeast Texas Municipal Water District http://www.netmwd.com/.

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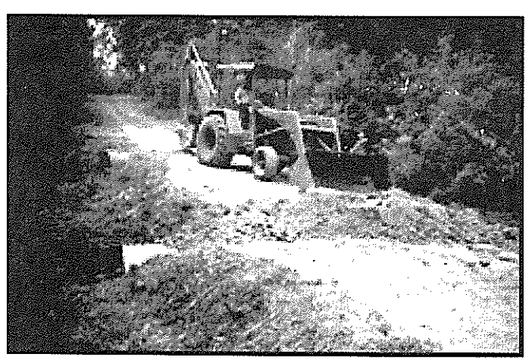

When installing a pipe culvert, soil should be compacted at least halfway up the side of the pipe. Cover equal to a minimum of half the culvert diameter should be placed above the culvert (but preferably one foot of fill per foot of culvert diameter). Never use less than one foot of cover.

For multiple-pipe installations, the distance between pipes should be a minimum of half the pipe diameter.

Quarter II, 20

Cypress Creek Basin BMP Informer

Serving Camp, Cass, Franklin, Harrison, Marion, Morris, Titus, Wood and Upshur Counties

Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 tfsbmp@inu.net

From the Editor . . .

A forest landowner's right to manage his/her property as he/she chooses is of the utmost importance. Forest landowners have either purchased their land with hard-earned money or have acquired it from family members who purchased the land long ago.

Landowners have earned the right and should always have the right to manage their property in the manner that best fits their goals. However, these rights are accompanied by responsibilities.

Responsibilities include protecting water quality for future generations. Texas' non-regulatory BMPs allow landowners the opportunity to be a steward of the land and avoid prohibitive government regulations.

BMPs are simple, inexpensive practices that protect land from erosion and maintain stream quality.

Did you know...
Losing a layer of soil the thickness of one dime across one acre (about the size of a football field including the end zones) amounts to losing 10,000 lbs. (5 tons) of soil per acre?

Your Land is the Future!

by James B. Hull

State Forester

As a forest landowner in the Cypress Creek Basin, you have an excellent opportunity to be a major participant in the future of the East Texas forest resource. Landowners like you own over 60% of all the commercial timberland here in East Texas. The Texas Forest Service, a Member of the Texas A&M University System, exists to help you realize your land management objectives.

As you know, the forestry community is going to great lengths to continue to utilize its renewable resource while protecting the environment. In fact, forestry leaders here in Texas have developed a set of Best Management Practices (BMPs), which are voluntary standards that provide protection for the streams and creeks of East Texas during and after forestry activities. Use of these voluntary BMPs will not only protect the environment, but also avoid costly regulatory programs. Agriculture and forestry are the only land-use activities exempt from federal and state water quality regulations.

After all, who does not want to maintain the beauty and vitality of our streams? Using BMPs is easy. By simply leaving a strip of trees along streams and creeks, the quality of your water can be protected. By using proper stream crossings, you can ensure good road access while minimizing erosion.

In the near future, you will be hearing much more about the Best Management Practices program. As State Forester for Texas, I encourage you to take an active role in your forest management decisions. Your timberland offers tremendous personal opportunity and is the future of East Texas forestry.

How Do I Know What Size Culvert I Should Use?

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Improving My Land

Permanent Stream Crossings

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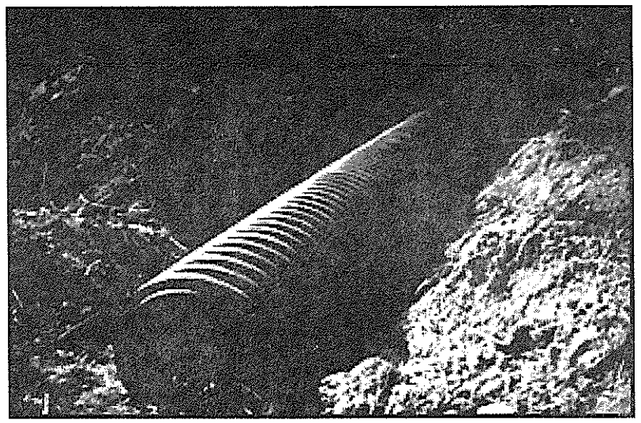

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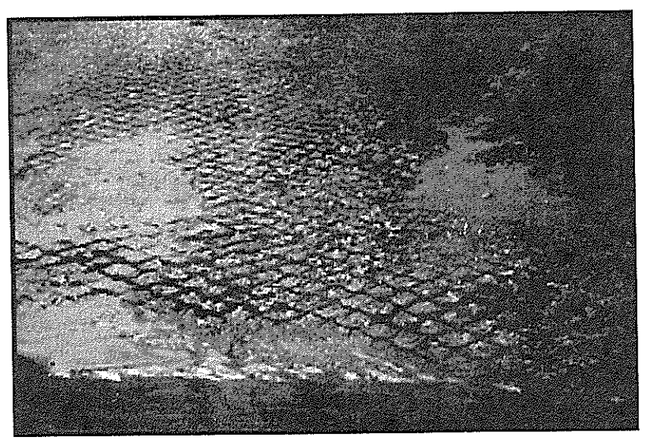

Texas Reforestation and Conservation Act

by Ron Hufford, Executive Vice President, Texas Forestry Association

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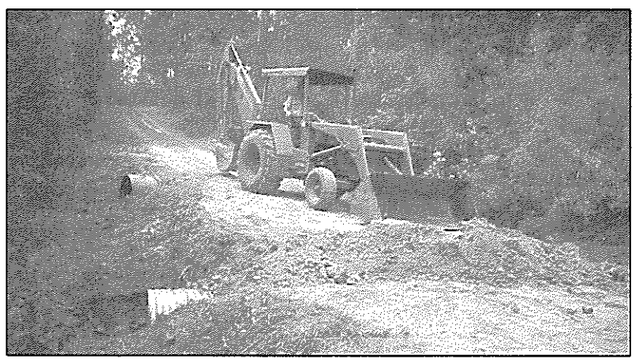
Culvert Installation



When installing a pipe culvert, soil should be compacted at least halfway up the side of the pipe. Cover equal to a minimum of half the culvert diameter should be placed above the culvert (but preferably one foot of fill per foot of culvert diameter). Never use less than one foot of cover.

For multiple-pipe installations, the distance between pipes should be a minimum of half the pipe diameter.

Quarter III, 2000

Cypress Creek Basin BMP Informer

Serving Camp, Cass, Franklin, Harrison, Marion, Morris, Titus, Wood and Upshur Counties

Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 j.donellan@gte.net

From the Editor . . .

A forest landowner's right to manage his/her property as he/she chooses is of the utmost importance. Forest landowners have either purchased their land with hard-earned money or have acquired it from family members who purchased the land long ago.

Landowners have earned the right and should always have the right to manage their property in the manner that best fits their goals. However, these rights are accompanied by responsibilities.

Responsibilities include protecting water quality for future generations. Texas' non-regulatory BMPs allow landowners the opportunity to be a steward of the land and avoid prohibitive government regulations.

BMPs are simple, inexpensive practices that protect land from erosion and maintain stream quality.

Did you know...
Losing a layer of soil the thickness of one dime across one acre (about the size of a football field including the end zones) amounts to losing 10,000 lbs. (5 tons) of soil per acre?

"Being new to the issues of starting reforestation, I was assisted in planning and answers to many questions by the Texas Forest Service. After clear-cutting the tract of land, we raked and piled the harvest "left-overs" so that we could burn. When late fall came, we purchased the seedlings and planted them. Since 1999 was a difficult year with respect to drought, we found with TFS help that we had a 65% success rate, which turned out to be a manageable stand. I do not believe we would have done well without advice and counsel of the staff at TFS.

We are learning about streamside management zone (SMZ) determination so that our taxes can be reduced by provisions of recent legislation [Senate Bill 977, the Texas Reforestation and Conservation Act] passed by members of the Texas Legislature."

— Jere Ruff, Longview, Texas

New BMP Forester in Cypress Creek area . . .

Jake Donellan is a Texas Forest Service BMP Forester based in Linden. He is doing a lot of work in the Cypress Creek basin to spread the message about Best Management Practices and protecting water quality.

Feel free to contact him with any questions you may have on using BMPs on your forested property. He is housed in the Texas Forest Service Linden District office at 907 Hwy. 59 S.

Jake Donellan
(903) 756-5571
j.donellan@gte.net

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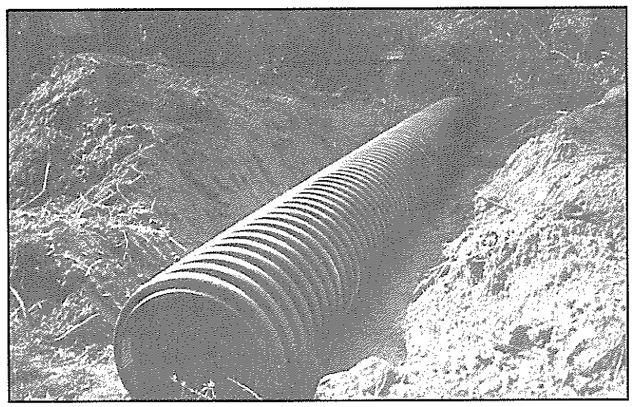

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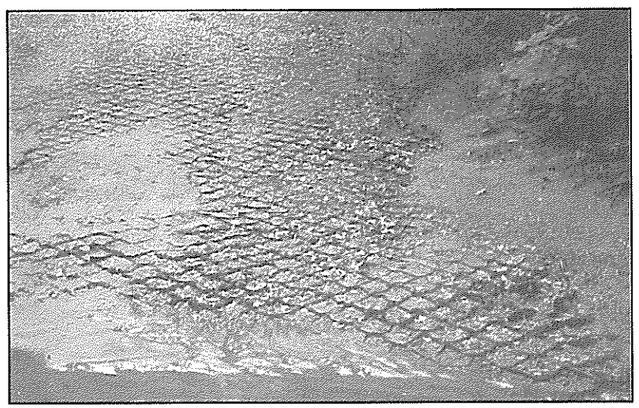

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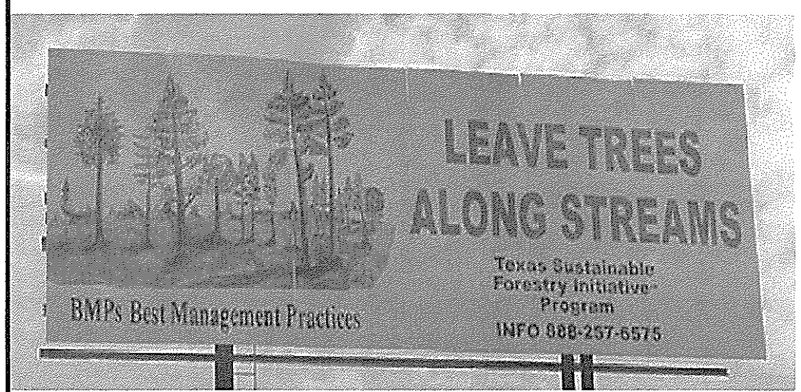

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Quarter IV, 2000

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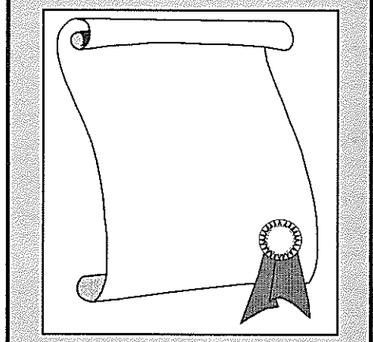

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You can also access a list of BMP-trained loggers on the Texas Forestry Association's website at http://www.texasforestry.org. Click on *Training Database*.

Texas Forest Service to Host Pine Tree Planting Workshops

If you are interested in planting pine trees on your property, now is the time to make plans. The Texas Forest Service is hosting pine tree planting workshops throughout East Texas this fall.

Foresters from the Texas Forest Service and Texas Agricultural Extension Service will address topics such as economic return, tax incentives, site preparation, purchasing seedlings, and vendor selection. The workshop will enable and prepare landowners to make wise, informed decisions regarding their land.

The dates and locations of upcoming workshops are:

Oct. 20 – First National Bank Community Room, **Jasper**

Oct. 27 – Cypress Valley Alliance Building, **Jefferson**

Nov. 11 – Norman Activity Center, **Jacksonville**

Nov. 18 – Donohue-Kurth Lake, **Nacogdoches**

Similar workshops have already been held in Mount Pleasant and Longview.

The cost of the workshop is $10 per person, which includes lunch and materials.

For more information or to register for the workshop, please contact your local Texas Forest Service office or visit the TFS website at http://txforestservice.tamu.edu.

Registration forms must be in one week prior to the scheduled workshop.

Certified Forest Steward

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Improving My Land

Road Vegetation

The following guidelines can help you create well-vegetated roads:

Seedbed Preparation

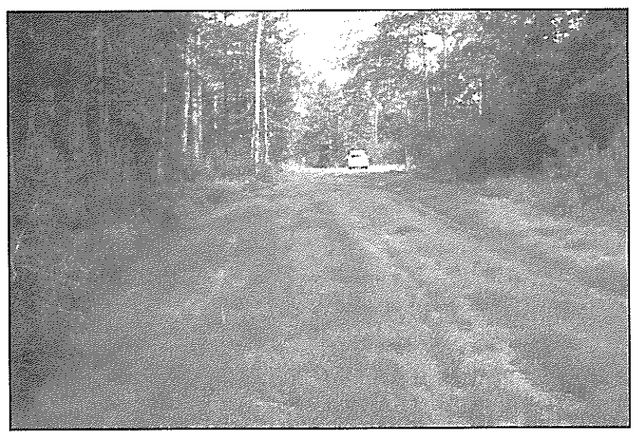
- If the soil is loose, or even firm but not compacted, and has not been sealed by rainfall, no seedbed preparation may be needed.
- If the soil is compacted, sealed by rainfall, or graded to clay, use a disk or similar equipment to loosen a 3-4" depth.

Planting

- When temporary plants (annual grasses) are used, a follow up with permanent vegetation is likely to be needed.
- If possible, use mixes. Legumes should always be used in mixes with grasses.
- Broadcast and lightly drag seed into soil, or firm with a roller.

Fertilizing

- In general, apply about 600 lbs. of triple-13 per acre either at the time of planting or mix into the top 2-3" during seedbed preparation.



Well-vegetated roads minimize erosion, provide wildlife habitat enhancement, and are pleasing aesthetically.

TEXAS FOREST SERVICE

How Are We Doing in Following BMPs?

BMP Compliance Report, Round 4

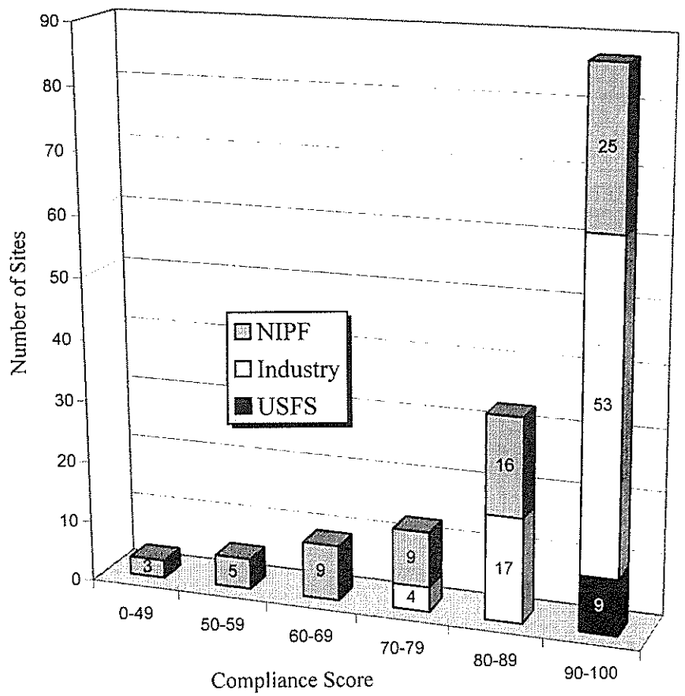
Between June 3, 1998 and August 31, 1999, Texas Forest Service BMP foresters evaluated BMP compliance on 150 sites, totaling 14,724 acres, throughout East Texas. Each tract was "graded" using a number, or percent, which demonstrates that tract's level of voluntary compliance.

It was found that compliance with BMPs was statistically significantly HIGHER when:

- the landowner was familiar with BMPs
- the logging contractor had attended formal BMP training
- a professional forester was involved
- BMPs were included in the timber sale contract

When considering all sites monitored, overall BMP compliance averaged 88.6%. U.S. Forest Service lands scored the highest with an average of 97.9%. Forest industry-owned lands rated an overall score of 94.2%. Properties owned by non-industrial private landowners had an overall score of 81.2%

The following chart separates the compliance scores from all sites into six categories. It provides the number of tracts, broken down into ownership categories, receiving the respective level of compliance.



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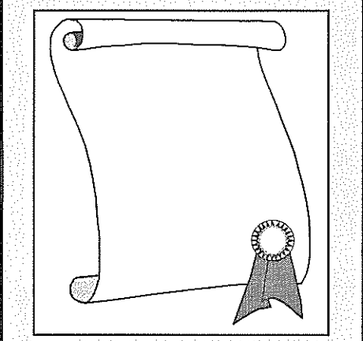

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The Cypress Creek Basin Area and BMP Compliance

How did the counties of the Cypress Creek basin score in the latest round of BMP compliance? The counties are listed below with the average scores for non-industrial private forest (NIPF) lands, industry-owned properties and overall average score considering all sites and ownerships for the county.

A summary and results of this entire monitoring project in East Texas are discussed on page 3 inside this newsletter.

	-- Compliance Scores --		
County	NIPF	Industry	Overall
Camp-Morris	70.1%	N/A	70.1%
Cass	75.1%	91.1%	81.9%
Franklin-Titus	67.9%	N/A	67.9%
Harrison	88.6%	100%	97.1%
Marion	74.5%	100%	87.2%
Upshur	93.9%	N/A	93.9%

The complete report for this round of monitoring can be found on the TFS website at http://txforestservice.tamu.edu. Click on *Forest Management* (on left-hand side of homepage), then go to Best Management Practices. There you'll find BMP Voluntary Compliance in East Texas - Round 4.

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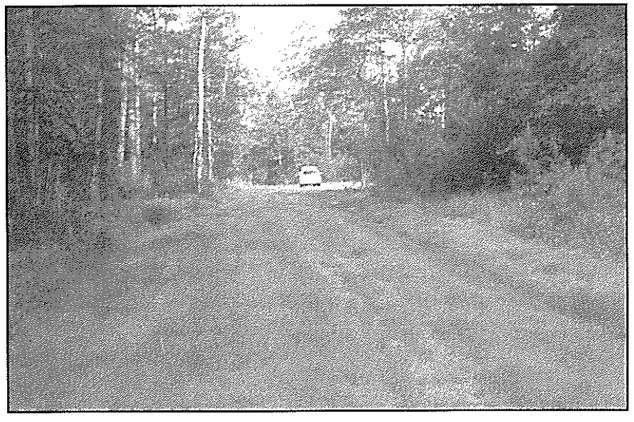

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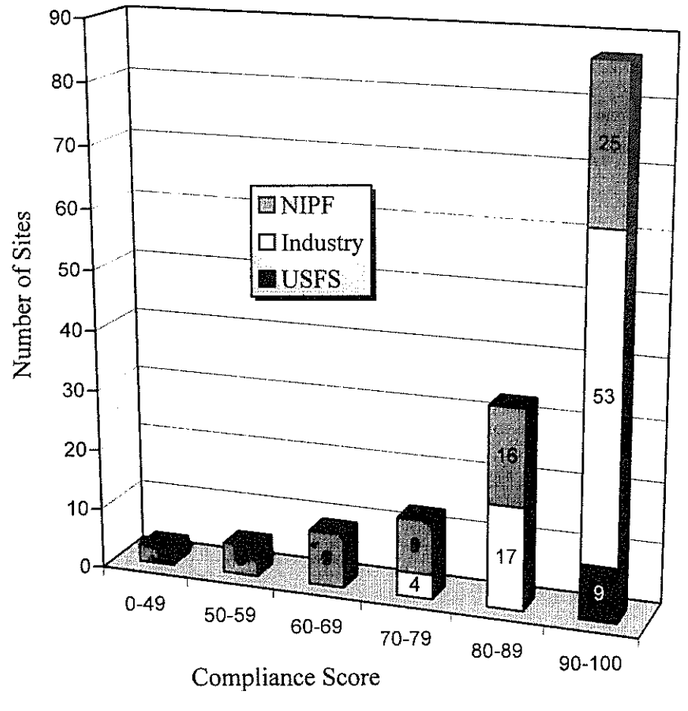

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Cypress Creek Basin

BMP Informer

Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 jdonellan@tfs.tamu.edu

Want to See Examples of BMPs at Work?

You can take a "Virtual Tour" of the Jones State Forest and Kirby State Forest BMP Demonstration sites on the TFS website. Color photographs depict many BMPs with explanations about application as well as installation techniques.

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You're in the Majority

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What Can I Do About Dry, Powdery Summer Roads?

During the hot, dry summer, woods roads can be as troublesome for hauling timber as wet roads are in the winter. Many roads on sand or silt soils will not hold up to heavy traffic under the dry conditions we often experience in East Texas.

One way to help hold the road surface together is to add organic matter. This will provide both support and traction for vehicles.

A good source of organic matter is hay. Large round bales of hay can be rolled out along the roadway to cover the soft spots. An average round bale will cover a little more than 200 feet.

Another method used to hold dry roads together is to wet them with water trucks. Wetting roads is a costly and short-term solution compared to adding hay.

Adding hay will give you access under dry conditions and help protect the road from erosion long into the wet season. This additional organic matter will also make a great seed bed in the fall for replanting the roadway.

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Where Can I Get . . .?

Topo maps:

USGS Information Services
Box 25286
Denver, CO 80225
1-888-275-8747

Longview: (903) 758-0166
Tyler: (903) 592-0212
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(903) 534-0174

Websites:
www.topozone.com – find and print topo maps
www.teraserver.com – find and print topo maps and aerial photos

BMP-related products:

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Improving My Land

Harvest Planning

Planning is often the most overlooked yet most important part of any harvest activity. Potential sources of sedimentation can often be avoided with proper planning. There are several tools available to help with planning – you may want to visit with your logger or forester about using these sources of information.

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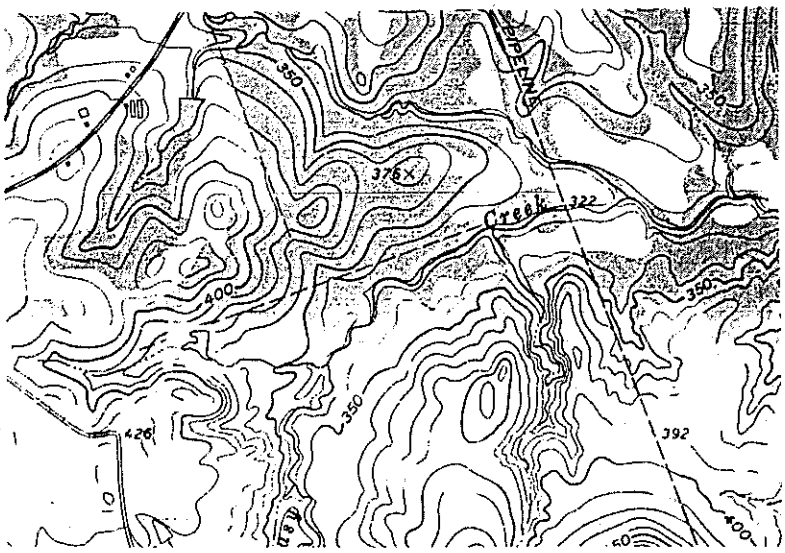

Not only are topo maps practical, but they can also reveal interesting facts such as elevations of points of interest. This hilltop near Greasy Creek, just west of LaFayette, is 376 feet above sea level.

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RD = Resource Development Forester Ref. = Reforestation Forester * Starting Sept. 2001

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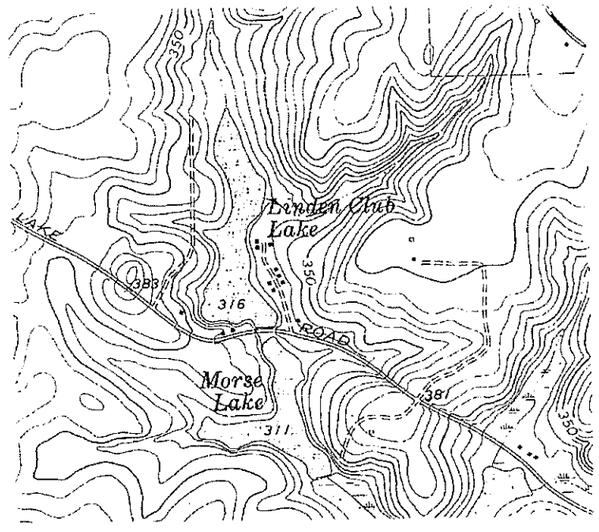

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Water Quality Management Plans

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Each consumer will have to play a role in protecting water quality and conserving this necessary resource. Forest landowners are no different. In fact their role may be even more important. According to the publication by the USDA Forest Service, *Water & the Forest Service*, "...about 80 percent of our Nation's freshwater resources originate on forest." In Texas, 61 percent of the timberland is owned by private landowners. These two facts combine to indicate that forest landowners in Texas play an integral role in providing the state with clean, fresh water.

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Once the WQMP has been written and then approved by the Texas Sate Soil and Water Conservation Board, it becomes certified and the landowner must begin implementing the scheduled events. A certified WQMP carries the same legal status as an entity operating with a Texas Natural Resource Conservation Commission point source pollution permit.

Other benefits of having a certified water quality management plan include:

- it provides you, the landowner, an opportunity to meet with experts to review and make recommendations to your plan;
- it allows you to install conservation measures over a period of time;
- the plan can change to continue to meet your needs as they change;
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TFA Annual Meeting

The Texas Forestry Assoc.'s Annual Membership Meeting is set for November 14-16, 2001, at Galveston.

The meeting features a Non-industrial Private Landowner Workshop on Green Certification with presentations on:

- The American Tree Farm System
- Why Certify
- Various Types of Certification Methods

Other topics include:

- Southern Timber in a Global Environment
- How the U.S. Measures Up
- Land Fragmentation

Also on the agenda – reception, banquet, live entertainment, exhibitors, golf tournament, Tree Farm awards and presentations, Ladies Day Out, and a silent auction.

For more information and registration forms, contact the TFA office at (936) 632-8733 or e-mail tfa@lcc.net.

Texas Forest Service to Measure The State's Forest Resources

This summer, the Texas Forest Service implemented a new forest survey program designed to measure the status of Texas' forest resources.

Since 1935, the U.S. Forest Service has conducted periodic forest surveys in East Texas. In the 1998 Farm Bill, Congress mandated that each state conduct an annual forest survey and, for the first time, the survey must include the entire state. The new program is a partnership between the Texas Forest Service and the U.S. Forest Service.

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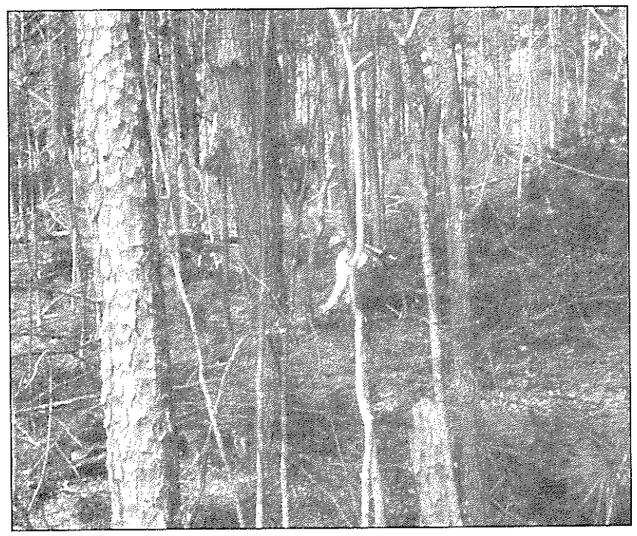
Improving My Land

Managing Streamside Management Zones

Streamside management zones (SMZs) provide a protective, vegetated buffer around a stream or river. The flexibility of voluntary BMP guidelines allows you and your forester or logging contractor to manage these buffer strips. In meeting objectives like maximum return on your timber investment or forest health improvement, trees within the SMZ may be selectively thinned.



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Forestry Acronyms

BMP	Best Management Practices	TFA	Texas Forestry Association
CFLOA	County Forest Landowner Association	TFS	Texas Forest Service
FIP	Forestry Incentives Program	TLC	Texas Logging Council
FSA	Farm Services Agency	TMDL	Total Maximum Daily Load
NIPF	Nonindustrial Private Forest (landowner)	TNRCC	Texas Natural Resource Conservation Commission
NPS	Nonpoint Source (pollution)	TRe	Texas Reforestation Foundation
NRCS	Natural Resources Conservation Service	TSSWCB	Texas state Soil and Water Conservation Board
SFI	Sustainable Forestry Initiative	WHIP	Wildlife Habitat Incentives Program
SIP	Stewardship Incentives Program	WQMP	Water Quality Management Plan
SMZ	Streamside Management Zone	WRP	Wetlands Reserve Program
SPB	Southern Pine Beetle		
SWCD	Soil and Water Conservation District		

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Texas Forest Service Trains 2,500

In October 2001, the Texas Forest Service, in cooperation with the Texas Forestry Assoc., held the 100th Continuing Education Workshop for Logging Professionals on BMPs. This landmark workshop brought the total number of persons trained in this course to 2,500!

These full-day workshops focus on BMPs in the logging woods. A classroom session, followed by time in the field, allows participants to see and discuss ways to protect water quality.

The BMP workshop is a part of a larger continuing education program for logging professionals sponsored by the TFA Sustainable Forestry Initiative℠ Committee. Loggers who successfully complete these workshops are accredited as "Pro-Loggers."

For a list of loggers who have the Pro-Logger accreditation, you can go to the TFA website - www.texasforestry.org/training.

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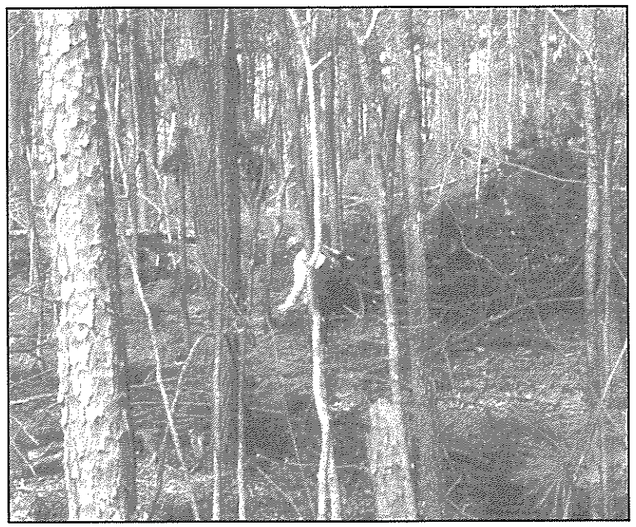

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TEXAS FOREST SERVICE

Do BMPS Work?

This is What the Research Shows

The Texas Forest Service has been monitoring logging operations for impacts to water quality since 1992. Since that time, four "rounds" of monitoring have been completed; another is underway. Each round consists of visiting 150 tracts on public, private and industrial forestland. The monitoring indicates that Texas landowners do a pretty good job in using BMPs. Detailed results of the monitoring can be found on our Web page at http://txforestservice.tamu.edu/forest_management/best_management_practices/bmp_compliance/index.html.

We now need to take this a step farther and ask: how effective are BMPs in reducing nonpoint source NPS pollution? For example, it is easy to see the effects of BMPs on a woods road after a rain. Can we produce numbers that show exactly how much sediment, for example, a streamside management zone (SMZ) prevents from reaching the stream?

One study[1] shows some astounding results. The study compared two clearcuts in Eastern Kentucky; one received BMPs and one did not. The following conclusions were made:

- *Streamflow increased by as much as 138 percent following the harvest.*
  Trees use a lot of water. When trees are removed, more water moves across the land, increasing the potential for erosion. An increase in streamflow was measured for eight years following the harvest, as compared to an uncut tract.

- *Suspended sediment in the streamwater was 14 times higher on the clearcut with BMPs and 30 times higher on the clearcut without BMPs, as compared to an uncut tract.*
  BMPs had a drastic impact on the amount of sediment reaching the streams. Seventeen months later, the levels of suspended sediment were only 4 times higher on the BMP clearcut and 6.5 times higher on the non-BMP clearcut. (The Environmental Protection Agency estimates that forestland use contributes only 3 percent of all sedimentation reaching streams on a nationwide average.)

- *Clearcutting resulted in increased concentrations of nutrients in the streamwater and the concentrations were highest on the non-BMP clearcut.*
  Excessive nutrients in the water act to disrupt the natural balance and can make the water unsuitable for the critters that live there.

- *The streamside buffer strip (SMZ) was effective in reducing the impact of clearcutting on increases in streamflow and sedimentation.*
  This article stresses the effectiveness of SMZs in reducing NPS. A quick glance at the results of the TFS monitoring program indicates that when a tract failed to comply with the voluntary Texas BMPs, it was usually due to a lack of an adequate SMZ. The Texas voluntary guidelines recommend a 50-foot buffer on each side of perennial or intermittent streams – the same size SMZ was used in this study.

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Forestry Acronyms

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CFLOA	County Forest Landowner Association	TFS	Texas Forest Service
FIP	Forestry Incentives Program	TLC	Texas Logging Council
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SPB	Southern Pine Beetle	WQMP	Water Quality Management Plan
SWCD	Soil and Water Conservation District	WRP	Wetlands Reserve Program

Volume 2, _02

Cypress Creek Basin BMP Informer

Serving Camp, Cass, Franklin, Harrison, Marion, Morris, Titus, Wood and Upshur Counties

Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 jdonellan@tfs.tamu.edu

Early in the last century, forests were cut with little regard for the future - or for Best Management Practices.

Today, there's a new awareness of the economic and environmental contributions forests provide.

As a landowner, you have the choice to follow good harvesting practices – such as leaving trees along streams, which benefits wildlife, water quality, and aesthetics for generations to come.

Best Management Practices -

they work for you . . .

your forest . . .

the future.

For your timber sale to be a successful, enjoyable, and hassle-free experience . . .

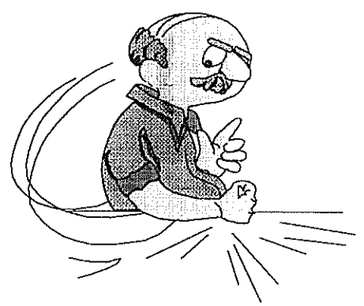
Meet with all parties involved before logging activities begin.

Read your contract carefully. Insist that Best Management Practices be used and included in the contract.

You or your representative should try to be present at some time during the activity.

Keep the lines of communication open. Be available to answer questions and discuss any problems that may arise.

These steps can help make sure your timber sale does not end up as an unpleasant experience that leaves you unhappy.



Water Quality Management Plan Completed For the Area

Kevin Rankin, Texas Forest Service Resource Development Forester, has completed the first forestry Water Quality Management Plan for the Franklin/Titus/Morris/Camp Co. area. The plan has been submitted and should be certified by the Texas State Soil and Water Conservation Board (TSSWCB) soon.

A Water Quality Management Plan is a management plan (a document that outlines a course of action for a specified time period) that contains specific recommendations about using Best Management Practices to prevent erosion and protect water.

These plans, introduced by the 73rd Texas Legislature in Senate Bill 503, allow landowners to manage their land according to their own personal goals and stay in compliance with the state's water quality objectives. This bill also amends the Water Code to grant certified forestry Water Quality Management Plans the same legal status as a Texas Natural Resource Conservation Commission (TNRCC) point source pollution permit.

To request assistance for a site-specific plan for your land, contact your local Texas Forest Service office. For the four-county area, contact Kevin Rankin in Pittsburg at (903) 856-7181 or e-mail him at krankin@tfs.tamu.edu.

For more information, contact Jacob Donellan of the TFS BMP Project at (903) 665-7400 or e-mail him at jdonellan@tfs.tamu.edu.

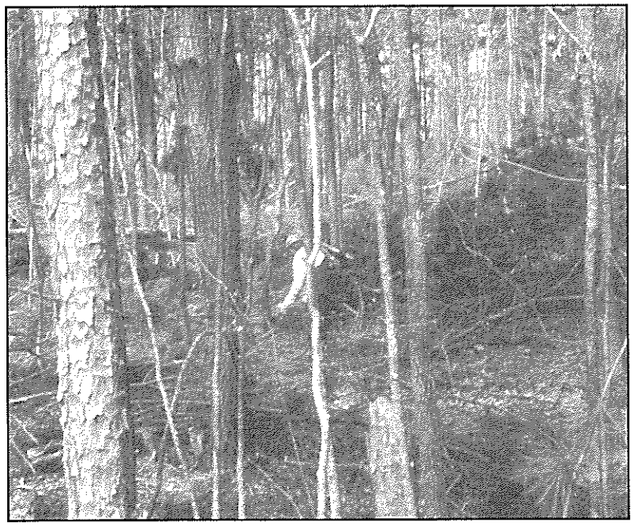
Improving My Land

Do Your Firelanes Measure Up?

Firelanes are important in protecting your valuable timber. Even though it has been a fairly wet fall and winter and fire danger has been relatively low, you should know the condition of your firelanes.

If you have an erosion problem on your firelanes, it is important to solve the problem at its source. Soil erosion is usually a result of the firelane carrying too much water. For example, just filling in the washed areas is not as good as installing a water bar or other water control structure. Water bars and wing ditches work just as well on firelanes as they do on temporary roads or skid trails. When installing wing ditches, make sure that the runoff water is not being discharged directly into streams.

Seeding can also help minimize erosion in a firelane, as well as provide supplemental food for wildlife.



A firelane such as this needs water control structures to minimize erosion.

Proper maintenance of a firelane may include mowing rather than blading to minimize both fuel build-up and soil erosion. When blading is necessary, every effort should be made to minimize exposure of the bare soil.

BMP Virtual Tour on TFS Website

A "Virtual Tour" of the BMP demonstration areas on the John Henry Kirby State Forest in Tyler County and the W. Goodrich Jones State Forest in Montgomery County can be found on the Texas Forest Service Home Page. Just go to: http://txforestservice.tamu.edu/forest_management/best_management_practices/forest_tours/index.html and click on either Jones or Kirby.

The Forest Tours page provides you with state-of-the-art examples of applying Best Management Practices. You will see photographs of open-top box culverts, low water crossings and culverts of different size, shape and composition. Products like geoweb and geogrid as well as examples of forest wetland determinations are also on-line.

All BMP demonstrations have photographs and a description of how the installations work to protect water quality. Detailed instructions for actually implementing the specific BMPs are also available.

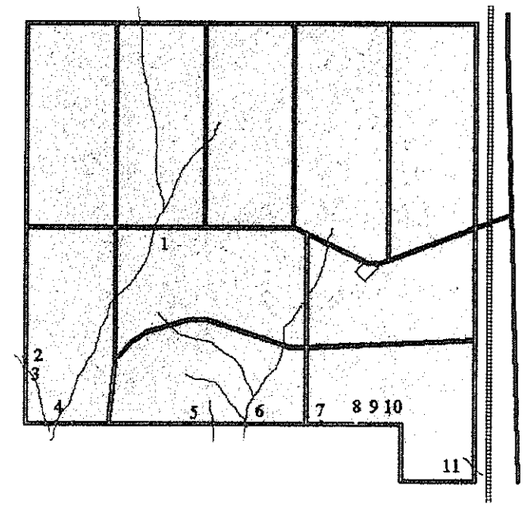
In addition to the Virtual Tour, the TFS Home Page is a great place to keep updated on:

- BMP literature
- Training and workshops
- BMP Product and Vendor Guide
- BMP compliance
- Silviculture/Wetlands Regulatory Glossary
- Special events
- The Kid's Korner
- Past issues of the Cypress Creek BMP Informer.

Just go to "Forest Management", then click on Best Management Practices.

After taking the virtual tour, drop us an e-mail and let us know how you liked it.

J.H. Kirby State Forest BMP Demonstration Tour



Stop #1 Rock Low Water Crossing
Stop #2 Cypress Open Top Box Culvert
Stop #3 Creosote Timber Bridge
Stop #4 Culverts
Stop #5 Treated Open Top Box Culverts
Stop #6 Geoweb Low Water Crossings
Stop #7 Geogrid Underlay
Stop #8 Wetland Designation
Stop #9 Geogrid Underlay
Stop #10 Cross Road Drainage
Stop #11 Constructed New Road

Legend
- Railroad
- Stream
- Forest Road
- Paved Road
- BMP demonstration
- J.H. Kirby State Forest
- Fire Tower

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Volume 3, [illegible]02

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Updating FOREST LANDOWNERS on Forestry and Water Quality Issues

TEXAS FOREST SERVICE Best Management Practices Project P.O. Box 310 Lufkin, Texas 75902 jdonellan@tfs.tamu.edu

Timber Thieves Don't Use BMPs!

Help prevent timber theft –

- Clearly mark property boundaries, preferably with fencing.
- Gate all roads into the property.
- Ask your neighbors to report suspicious activity. Let them know when and where you are planning to have your timber cut.
- Have you or someone else visit your property while your timber is being cut.
- Know the value of your timber. Before making a timber sale, clearly mark and measure all trees to be included in the sale.
- Join a forest landowner association.
- Insist on a sale contract that includes Best Management Practices.

BMPs and Burning

Prescribed fire is a tool used to prepare sites for replanting, reduce accumulation of combustible materials, recycle forest nutrients, encourage growth of fire-adapted species, and aid in the general health of the forest. There are many guidelines and precautions that should be taken when doing a prescribed burn. Only trained, experienced individuals should conduct burns.

With fire come concerns of surface runoff, soil erosion and water quality. There are Best Management Practices that apply to burning and structures (such as firelanes) associated with it. Firelanes are permanent barriers that will be maintained over time for the specific purpose of stopping the spread of fire or for access to an area for the control of a fire.

If you are building or maintaining firelanes on your property, make sure they have water control devices where needed. Waterbars and wing ditches can be used on firelanes just like they are on dirt roads. When using wing ditches, make sure they do not divert the runoff water directly into a stream.

Reseeding the firelane is another method of preventing soil movement, and is also good for wildlife.

Mowing, rather than reblading, should be used, if feasible, to maintain firelanes over time in order to avoid exposing bare soil to potential erosion.

Another thing to keep in mind when burning – burning in a streamside management zone (SMZ) reduces the filtering capacity of the litter on the forest floor. Plan burns that minimize impacts on the SMZ. You can keep fire out of an SMZ by putting a temporary fireline around the perimeter.

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BMPs and County Roads

The Texas Forest Service Best Management Practices Project is working with Upshur County commissioners and the county judge to provide water quality awareness training to the county road crews.

What do the TFS and forestry BMPs have to do with county roads? What is the connection?

Poorly constructed roads can be a major source of sediment going into streams. People working in the logging woods already deal with dirt roads such as haul roads and skid trails. There are BMPs that deal with these types of roads in logging operations. Other dirt roads, such as county roads, also have the potential for eroding and causing water quality problems.

The TFS BMP Project's expertise in dealing with dirt roads in the logging woods can also be applied to dirt county roads. The principles of preventing soil erosion and protecting water quality are the same in both situations. The BMP guidelines that are used on forest roads, skid trails and firelanes can be used for county roads as well.

The training for the county road crews covers topics such as nonpoint source pollution, soils, culvert sizing, stream protection, and general road building tips.

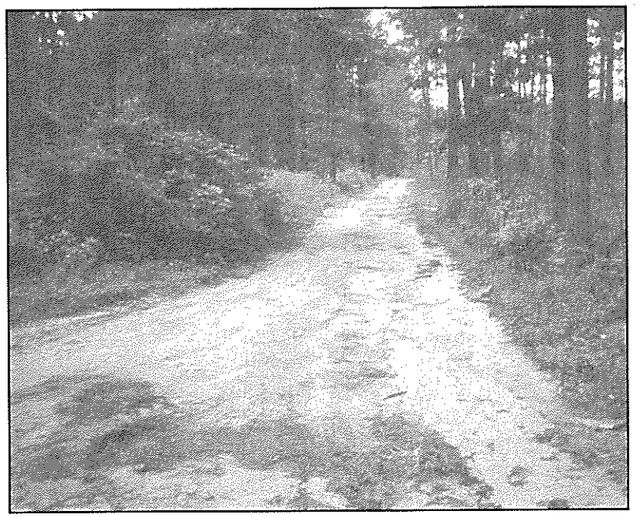
Others involved in the training are Charles Snowden of the Natural Resources Conservation Service, Bob Currie of the Texas Logging Council, and Howard Pafford of the Northeast Texas Municipal Water District.

Improving My Land

Woods Road Maintenance

What could have prevented the washout that is depicted below?

Something as simple as maintaining the road ditches would have kept the water off of this road. The ditches were allowed to fill in with sediment causing the water to backup on the road.



A washout like this can result from failing to maintain the road ditch and wing ditches.

Preventative maintenance on your roads will help protect water quality and keep your access open all year. Be sure to check all of your water control structures, especially ditches and culverts on access roads to make sure that water can flow freely. Culverts can become clogged with debris and road ditches can fill in with sediment with time.

The long slow winter rains are coming to an end and will soon be replaced with the shorter duration and higher intensity spring and summer thunderstorms. Now is a good time to check your road systems. Preventative maintenance saves time and money when compared to reconstructing roads.

TEXAS FOREST SERVICE

Do BMPS Work?

This is What the Research Shows

The Texas Forest Service has been monitoring logging operations for impacts to water quality since 1992. Since that time, four "rounds" of monitoring have been completed; another is underway. Each round consists of visiting 150 tracts on public, private and industrial forestland. The monitoring indicates that Texas landowners do a pretty good job in using BMPs. Detailed results of the monitoring can be found on our Web page at http://txforestservice.tamu.edu/forest_management/best_management_practices/ bmp_compliance/index.html.

We now need to take this a step farther and ask: how effective are BMPs in reducing nonpoint source NPS pollution? For example, it is easy to see the effects of BMPs on a woods road after a rain. Can we produce numbers that show exactly how much sediment, for example, a streamside management zone (SMZ) prevents from reaching the stream?

One study[1] shows some astounding results. The study compared two clearcuts in Eastern Kentucky; one received BMPs and one did not. The following conclusions were made:

- *Streamflow increased by as much as 138 percent following the harvest.*
  Trees use a lot of water. When trees are removed, more water moves across the land, increasing the potential for erosion. An increase in streamflow was measured for eight years following the harvest, as compared to an uncut tract.

- *Suspended sediment in the streamwater was 14 times higher on the clearcut with BMPs and 30 times higher on the clearcut without BMPs, as compared to an uncut tract.*
  BMPs had a drastic impact on the amount of sediment reaching the streams. Seventeen months later, the levels of suspended sediment were only 4 times higher on the BMP clearcut and 6.5 times higher on the non-BMP clearcut. (The Environmental Protection Agency estimates that forestland use contributes only 3 percent of all sedimentation reaching streams on a nationwide average.)

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Volume 4, 2002

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BMP Guidelines and Vendor Information

Want to know what the recommended guidelines are for implementing BMPs? Want to know where you can get the products used for certain water control structures and stream crossings? Need to do some repairs on already-existing BMPs in place on your property?

Go to the Texas Forest Service website to find technical assistance on installing BMPs:

http://txforestservice.tamu.edu/forest_management/best_management_practices/index.html

At this site, you can view and print the BMP Handbook and the Products and Vendor List.

Did you know . . .

Removing some of the shade alongside your woods roads will allow them to dry out more quickly after a rain and help keep them in great shape?

Remember Your Forest After the Storm

Much of East Texas has experienced heavy rains, high winds, even tornadoes in the last several weeks. If your forested property was in an area hit by these springtime storms, you may want to visit your property and check for damage, not only to your timber, but to roadways and other features of your property.

- √ Check your boundaries for damage to fencing or boundary marking signs.
- √ As you survey your property, look for signs of damaged timber. [Note: if you do have snapped off, lightning-struck, or otherwise damaged timber, be on the look-out for bark beetle infestation later in the year.]
- √ Check roads for:
  - fallen trees
  - washouts
  - damage to water control structures such as water bars, wing ditches, bar ditches, and culverts
- √ Make observations at several points along any creeks that may cross your property. Look for areas where unusual amounts of sediment are entering the stream and try to locate their sources. Also look for blockage in stream flow by downed trees, trash washed in from other areas, or collapsed banks.

Repair may be necessary to some to your water control devices, roads, and stream crossings.

For advice on salvaging storm-damaged timber, contact your local Texas Forest Service office.

Remember to follow BMPs in whatever repair, restoration, and recovery operations you may implement.

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County Road Crews Receive BMP Training

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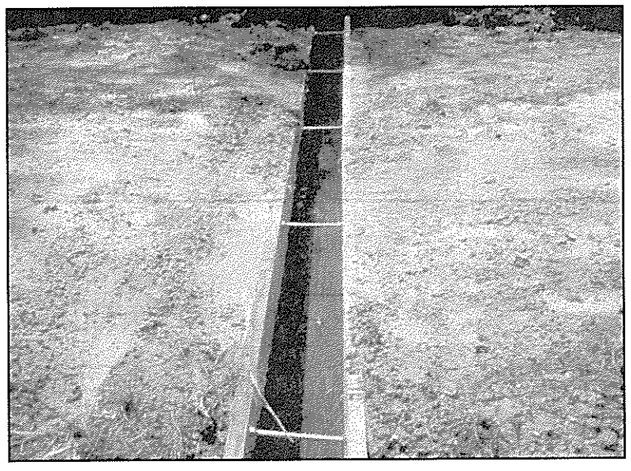
Others involved in the training were Charles Snowden of the Natural Resources Conservation Service, Bob Currie of the Texas Logging Council and Howard Pafford of the Northeast Texas Municipal Water District.

Improving My Land

Open-Top Box Culverts

If there is a section of road on your land that always seems to be wet but doesn't really carry much water, an open-top box culvert may be useful. Open-top box culverts are easier to maintain than pipe culverts, and are installed at road grade.

Pipe culverts, if not installed to the proper depth, can cause a hump in the road and hinder driving. Proper installation of open-top box culverts allows for smooth travel for all types of traffic. It is important to remember, however, that they do not carry a lot of water and are not suited for handling flowing streams.



Open-top box culverts are installed at road grade, handle traffic well, minimize rutting, are fairly easy to maintain, and are relatively inexpensive.

Open-top box culverts are constructed of treated wood and can be reinforced with all-thread bolts. Good construction and proper reinforcement is essential to prevent the culvert from collapsing. Back fill must be tamped to the top of the culvert. Also, it may be necessary to stabilize the ends of the culvert with rock to minimize soil movement. The culvert should be installed across the road skewed at an angle of 30 to 45 degrees, pointing downhill.

You should periodically clean out this type of culvert to keep it working properly.

TEXAS FOREST SERVICE

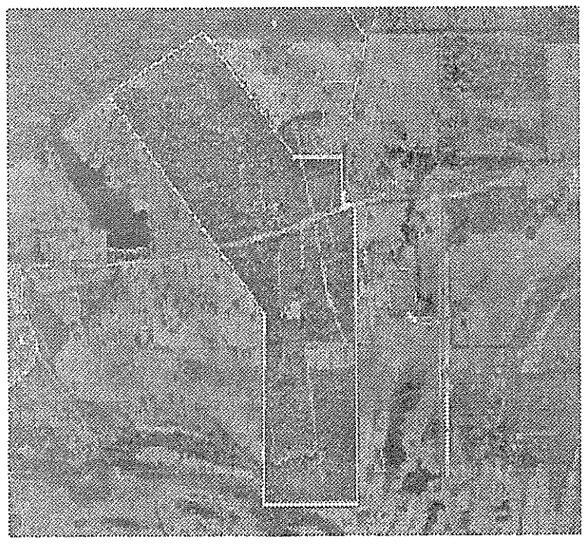
Digital Orthophoto Quads

A Management Tool for Foresters and Landowners

The Texas Forest Service and other natural resource agencies now use Digital Orthophoto Quads (DOQs) as a management tool. DOQs combine the image characteristics of an aerial photograph with the uniform scale and positional accuracy of a map. They provide a bird's-eye view of a tract of land and also can be used to accurately measure distances and areas.

DOQs provide the latest view of surface features and are more up-to-date than USGS topographic maps. They are color infrared images derived from photographs taken 1994-1997.

DOQs have become an integral part of the TFS's Geographical Information System (GIS). A GIS is a computer hardware and software system designed to collect, manage, manipulate, analyze, and display real-world, on-the-ground land features. The images are used as a base map upon which property boundaries, roads, political boundaries, topography, streams, and many other layers can be added.



Some uses of DOQs:

- Land use analysis and planning
- Vegetation and habitat analyses
- Land management
- Transportation analysis
- Viewing deer leases and hunting areas
- Birds-eye view of your neighborhood

One use of this GIS is to delineate streamside management zones (SMZs). The GIS can automatically establish a 50-foot buffer around a stream and calculate the acreage in this area. If tree growth information is available, timber volumes can be determined.

DOQs can be ordered or downloaded from the Texas Natural Resources information System (TNRIS) website at http://www.tnris.state.tx.us. At the top of the page, click on **Digital Data**; on the next page on the left, click on DOQs. A link to USGS MapFinder ™ is available to help you find which quad you need.

McKinney Roughs on Saturday, September 25.

The Sustainable Forestry Initiative is a program of forestry and conservation practices designed to maintain America's abundant forests for future generations while meeting the needs of the present.

Through sustainable forestry and best management practices, landowners can protect water quality, reduce fire dan-

With only 32 inches of annual rainfall in Bastrop County, drought is the biggest risk for seedlings, and Drought Hardy Loblolly Pine is one of the best choices for the area. TFS has two nurseries, and seedlings can be purchased from them. TFS will also plant tracts up to 10 acres in size. Larger tracts can be planted by commercial vendors. The best

compatible with the Houston Toad. The good news is that there are lots of Houston Toads, and there is lots of habitat available."

The workshop concluded with a tour of the Frampton Tree Farm on FM 304. The Frampton Tree Farm was named the 1999 Texas Outstanding Tree Farm by the Texas Forestry Association.

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forests of Texas. Volcano[a], containing the active ingredient sulfluramid, is produced Griffin L.L.C. in cooperation with FMC in Mexico. Research conducted by the Western Gulf Forest Pest Management Cooperative and Texas Forest Service has shown the bait to be effective in completely halting ant activity in as little as 4 weeks with a single application.

Historically, methyl bromide has been the most effective option for control of the Texas leaf-cutting ant. However, this chemical is highly toxic and is now scheduled to be phased out by 2005. Other control options such as Amdro[a] leaf-cutting ant bait and Eradicator[a] thermal fog system had been recently registered for use against leaf-cutting ants, but both have proven ineffective and are no longer available.

The Texas leaf-cutting ant is a significant pest in areas of east Texas and west central Louisiana that have deep sandy soil and are being reforested in pine. During the late spring, summer, and early fall months, the ants harvest plant material such as herbs, grasses, and hardwood leaves. This plant material is brought back to the ants' colony where it serves as a substrate for a fungus that is the ants' primary food. However, during the winter months, after the grasses dieback and hardwood lose their leaves, the ants switch to evergreen plants such as pine and youpon. Newly-planted pines on tracts having one or more leaf-cutting ant colonies are are likely to be killed as a result of defoliation by leaf-cutting ants. Ants foraging from established colonies, with a central nest area averaging 500 square feet, will commonly foliate and kill nearly all pine seedlings within a 2-3 acre area around the colony.

Volcano[a] Leafcutter Ant Bait, consisting of the sulfluramid insecticide on citrus pulp carrier, is highly attractive to leaf-cutting ants. It works by becoming part of the food chain. Worker ants find the bait, carry into their underground nests, and distribute it to the queen(s) and other ants, thus eliminating the entire colony in just a few weeks. Typically, in 1-4 weeks a great reduction in soil excavation and foraging activities by the ants is observed. These activities gradually stop completely and the colony is dead in 4-8 weeks.

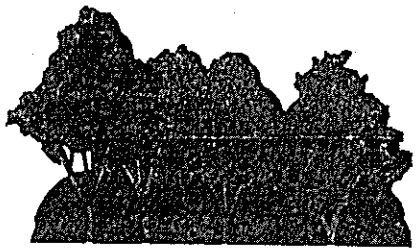
Applications of Volcano[a] Leafcutter Ant Bait can be made any time of the year when the ants are active. However, the bait should not be applied during rainy periods, when rain is expected within 24 hours, when soil and vegetation are wet, or during periods of prolonged cold weather with temperatures below 50 degrees F. To [illegible]

for its use. For additional information on leaf-cutting ants and/or Volcano[a] Leafcutter Ant Bait, contact your local Texas Forest Service District Forester or Dr. Don Grosman by phone at 409/639-8170 or by e-mail at d.grosman@inu.net.

by Don Grosman
Texas Forest Service

BMP Q & A

Q: I was recently discussing the compliance information from a couple of years back with an Industry Forester. He sure was doing a lot of bragging about the inspections that he had received. Would you tell me how the nonindustrial private forest (NIPF) landowners stand with regard to BMP compliance?



A: Industry as a whole has earned the right to do a lot bragging about their compliance with BMPs. We have just finished up another round of monitoring for BMP compliance across East Texas. Just a reminder – every two years the Texas Forest Service monitors about 150 randomly selected, recently harvested tracts for BMP. This round introduced a new method of recording monitoring data. In previous rounds, tracts were given an overall score of No Effort, Poor, Fair, Good or Excellent based on implementation of specific BMPs. Tracts receiving Fair or better were considered "in compliance." This was a pass/needs improvement system.

In an effort to be able to more closely compare our compliance numbers with other southern states and to comply with the Environmental Protection Agency's (EPA) wishes, a new scoring method was introduced. This method gives a percent compliance based on the number of specific BMPs implemented out of all of the specific BMPs that were applicable on that tract. In other words, if there are seven specific recommendations for an SMZ, including width, thinning, debris in stream, etc. and all but one recommendation was acceptable then the SMZ would score 6 out of 7 or 86%. Looking at all the applicable categories, roads, landings, crossings, etc. an overall percent compli-

same with one exception. **NIPF compliance has, for the first time, increased.** NIPF compliance went from 76.3% in the third round to 79.4% and looking at the new method, compliance has increased to 80.9%. This is an exciting. I will be taking a closer look at compliance from many aspects and reporting these to you in future issues of this newsletter.

by Larry Clendenen
BMP Project Forester, Texas Forest Service

Tree Spot

The Baldcypress (Taxodium distichum (L.) Rich) is a large and important tree located in East Texas. It originates from a species that was widely distributed in prehistoric forest of Europe and North America. This species, although preeminently adapted to freshwater swamps, extends into the coastal region of brackish tidewater, where it makes poor growth. The oldest of its species is located in North Carolina and has been determined to be 1000 to 1700 years old.

The tree reaches heights of 100 to 120 feet and 3-5 feet in diameter. It is typically found in swamps and bottomlands in association with water tupelo and sweetgum. The tree is becoming more widely planted as an ornamental as its ash gray bark and thin canopy add beauty to any site.

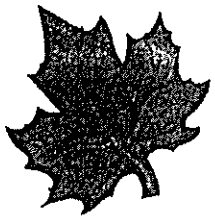
The tree has a very characteristic fluted butt that is much larger than the rest of the bole. The root system is the most distinctive feature of the tree. Baldcypress has conical tructures known as knees that rise from the roots on more moist sites. The function of these knees is not known, but some claim them to have aerating ability for when the tree is located in frequently flooded areas. Their removal seems to have no measurable effect on tree growth. These knees can be troublesome when the tree is planted in an area that is wet and frequently mowed. Baldcypress leaves are unique in that they are spirally arranged and are deciduous (falling off in the fall).

The wood is a light to dark brown, moderately heavy, hard and strong. The wood is frequently used for construction lumber, siding, caskets, and shingles. The characteristic of the wood to be very resistant to decay makes it desirable for exterior uses on buildings and low maintenance structures.

(Literature Cited: North American Trees Fourth Edition, Richard J. Preston, 1989; Textbook of Dendrology Seventh Edition, Harlow, Harrar, Hardin and White McGraw-Hill, Inc.,

Native Trees for East Texas

The following native trees are suggested for East Texas landscaping. The list is based on observations at Stephen F. Austin State University's Mast Aboretum:



Red Maple *(Acer rubrum)* - bright red flowers in very early spring; brilliant fall color.

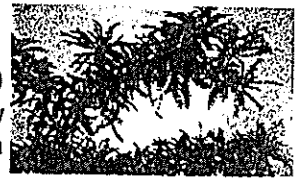
Sugar Maple *(Acer saccharum)* - good fall color and shade; sensitive to injury from lawn equipment.

Deciduous Holly *(Ilex decidua)* - orange to red berries; dark green leaves change to yellow in fall.

American Holly *(Ilex opaca)* - everygreen, dense foliage; red berries in late fall on fruiting selections. Few pests; extremely durable. Slow growing.

Bluejack Oak *(Quercus incana)* - small, nicely shaped tr[illegible] for poor sandy sites.

Swamp Chestnut Oak *(Quercus michauxii)* - grayish, flaky bark; heavy mast producer for poorly drained sites. Good fall color.



Honey Locust (*Gleditsia triacanthos*) - bright green leaves change to yellow in fall; fragrant flower. Excellent lawn tree for filtered shade.

Southern Magnolia *(Magnolia grandiflora)* - lustrous dark green leaves; red fruit; creamy white, fragrant flower. Needs room to develop.

Fringe Tree (*Chionanthus virginicus)* - dark green leaves; white fragrant flower. Good in groups; outstanding in flower. Does well in cities due to its tolerance to air pollution.

Blueberry Hawthorn *(Cratagus brachyacantha)* - extremely showy when flowering (white). Susceptible to rust.

Mexican Plum (*Prunus mexicana)* - white flowers. Fruit is edible and sweet, eaten by many birds and animals

BMP Q & A

.: You have been addressing questions lately concerning the latest round of BMP compliance monitoring. I don't recall reading anything that discussed how Industry stacked up. Would you provide some specifics about compliance on Industry lands and a review of compliance on all ownership types?

A: This is a perfect time to discuss BMP compliance of Industry lands. Industry received a compliance rating of 94.2% with only three significant risks. Remember that significant risks indicate that a condition exists where it is likely that sediment will be deposited in a permanent water body during a normal rain. Industry, once again, is showing its support for protecting water quality.

One practice in particular where Industry has excelled is site preparation. Many times temporary roads were completely done away with. Several examples were noted where below-grade roads were subsoiled and in some cases even bedded across. This practice provides an opportunity for any runoff to slow down and soak into the ground rather than flowing down the roadbed. Looking at site prep alone, across all ownerships, compliance was at 93% with no significant risks. For an activity, that has a high potential to cause soil erosion, to score this high indicates that someone is paying close attention to implementing effective BMPs.

Just for review, compliance on public lands was 97.9% and compliance on non-industrial private (NIPF) lands was 80.9%. Considering all tracts on all ownership types the overall BMP compliance was 88.4% for the fourth round of BMP compliance in Texas. There were 11 significant risks noted on NIPF land, bringing the total to 14. There were no significant risks noted on Public lands.

It won't be long before the next round of monitoring will begin. Keep in mind that BMPs are still voluntary in Texas and the monitoring program is a non-regulatory means of reporting the success of loggers and landowners working together to protect our water resources.

As always questions and comments can be directed to me at (409) 639-8180 or email me – ldc@tfs.tamu.edu.

By Larry Clendenen
Texas Forest Service

Tree Spot

Sassafras (*Sassafras albidum*)

There are only three species of Sassafras known in the world and we're blessed to have one of them located in our American forests. The three species are by no means neighbors. We have the one native Sassafras species and the other two are located in China and Taiwan. Sassafras rarely attains sizes larger that 40 feet in height and a foot in diameter in Texas, but can be as large as 100 feet tall and six feet in diameter on better sites further to the east. Sassafras is a pioneer tree on abandoned fields and dry slopes. The seeds for the tree are frequently dispersed by birds that eat the fruit and spread them into open fields.

SASSAFRAS

The leaves of this wonderful plant come in three distinct forms on the same plant. They resemble mittens (left or right handed); a large single elliptical lobe or they may be divided into three lobes on the same leaf. These leaves are about 3-4 inches in size and have a light non-glossy green color.

The bark on the main bole is brown and deeply furrowed while the bark of the twigs is bright green. The flowers are clustered, greenish-yellow, and open with the first unfolding of the leaves. The fruit is an oblong, dark blue or black lustrous drupe surrounded at the base by what appears to be a small orange-red or scarlet cup. The species is very intolerant so it is unable to grow well under closed forest canopies. You will frequently see the tree growing on abandoned fields and along the edge of a forest.

Sassafras tea may be prepared by boiling the root bark. Oil of sassafras is also used in the preparation of certain soaps and flavorings. The young leaves dried and powdered, are quite mucilaginous and are used to both thicken and flavor Creole dishes. The aromatic smell of the root when unearthed is very refreshing and truly smells

a dangerous job — it's necessary."

Clerks at the plaza described the perils of late shifts behind the counter. The hours between midnight and 6 a.m. are marked by empty stores, infrequent police cruisers and dangerous customers, clerk Salia Surmawala said.

"Of course I am scared," he said. "There are a lot of violent people coming in cussing; they want beer, they throw the money, sometimes break glass."

Convenience store workers and their families gather in Houston on Wednesday for a prayer and memorial service in honor of [illegible] grants killed recently by armed rob[illegible]

More than 20 years ago, Pritam Toor went to work as a shop clerk. He eventually bought seven Houston convenience stores. Toor believes the threat to convenience store workers has grown steadily worse through the years. One of his nephews was killed six years ago behind the counter of his store.

Still, the ethnic groups won't stand fr[illegible] their own to robbers' bullets, Toor sai[illegible]

"We have power; we have unity," "You go to any street, and you'll see [illegible] venience stores."

Austin American-Statesman Thurs, Feb. 24, 2000 B-7

Timber farmers denounce EPA permits as red tape

By Susan Parrott
Associated Press

LUFKIN — Timber farmers at a meeting in Lufkin this week remained wary of additional government regulation, despite Environmental Protection Agency assurances that plans to apply the 1972 Clean Water Act to the timber industry would not affect Texas operations.

Timber interests have been concerned about an EPA proposal requiring tree farmers to obtain permits, in some instances, before cutting timber or replanting near polluted waters. Forestry long has been exempt from the permitting process under the Clean Water Act, falling instead under state oversight.

About 1,700 timber farmers packed a civic center Tuesday to meet with state and federal environmental officials and industry representatives.

"These industries are the backbone of the economy of East Texas," said U.S. Rep. Jim Turner, D-Crockett. "The hard-working small landowners, loggers and farmers do not need the federal government trying to manage their land or run their businesses."

Crockett resident James Hall, who farms about 1,000 acres of timberland in Texas and Louisi-

Joel Andrews/Lufkin Daily News

Bill Hathaway, a division director for the EPA, told timber farmers Tuesday in Lufkin that the proposal wouldn't affect Texas farmers because voluntary measures to limit water pollution have worked.

The thrust of the EPA's campaign to clean the nation's most polluted rivers, lakes and streams is being misunderstood, particularly as it relates to timber, Charles Fox, the EPA's assistant administrator for water, has said.

Before requiring a permit, EPA officials note, the agency would have to demonstrate that a forestry operation pollutes significantly and that the state environmental authority has failed to stop it.

Burl Carraway, a forester for the [illegible] proper road construction and contouring in planting.

A meeting in El Dorado, Ark., last month drew more than 1,100 farmers and loggers from Texas, Arkansas and Louisiana. About 3,000 people attended a meeting two weeks ago in Texarkana.

Timber, a top crop in East Texas, employs about 91,000 people statewide with an annual economic impact of $23.8 billion, said Ron Hufford, executive vice president of the Texas Forestry [illegible]

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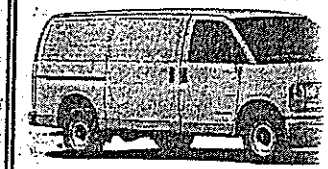

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Jefferson Jimplecute

Excelsior House hosts TFS seminar

By Vic Parker
Editor

The federal government owns only about 7 percent of the land in Texas, and the Texas Forest Service routinely offers seminars that have as a side effect keeping the ratio intact.

Jacob Donnellan of the service last week presented a seminar on "best management practices" to a group at the Excelsior Hotel, a venue which manager Karl Frederickson said allows it to fulfill part of its mandate.

By intervening in nonpoint source pollution efforts, the forest service may be able to forestall actions by federal authorities, keeping ownership and control within state, Donnellan said.

"Part of my job and responsibility is to perform public awareness of best management practices," Donnellan said.

"One purpose of the best management practices is to maintain compliance, and we're at 88 percent, which is good."

Nonpoint source pollution is water pollution that occurs from activity that has no permanent location, typically arising from human activities and carried over and through the soil by rainfall runoff.

The state's best management practices are designed to help landowners, foresters, loggers and others protect water quality during what is called silvicultural operations, defined as the art and science of growing and tending forest trees.

According to Donnellan, the practices can prevent or greatly reduce nonpoint source pollution from forest management activities.

The best management practices comprise eight activity areas: planning, road construction and maintenance, road material sites, harvesting, mechanical site preparation and planting,perscribed fire, silvicultural chemicals and streamside management zones.

The seminar last week was part of the Excelsior's public information effort, Frederickson noted.

"We're trying to initiate a process by which we can encourage organizations to use the hotel as a venue so we can fulfill our mandate as a nonprofit organization," Frederickson said.

Logger

March 2001

James Oren Metts, Jr.

The 2000th Logger to complete Best Management Practices Training

The 2000th Logger

James Oren Metts, Jr. – A Metts Family Affair

By Bob Currie

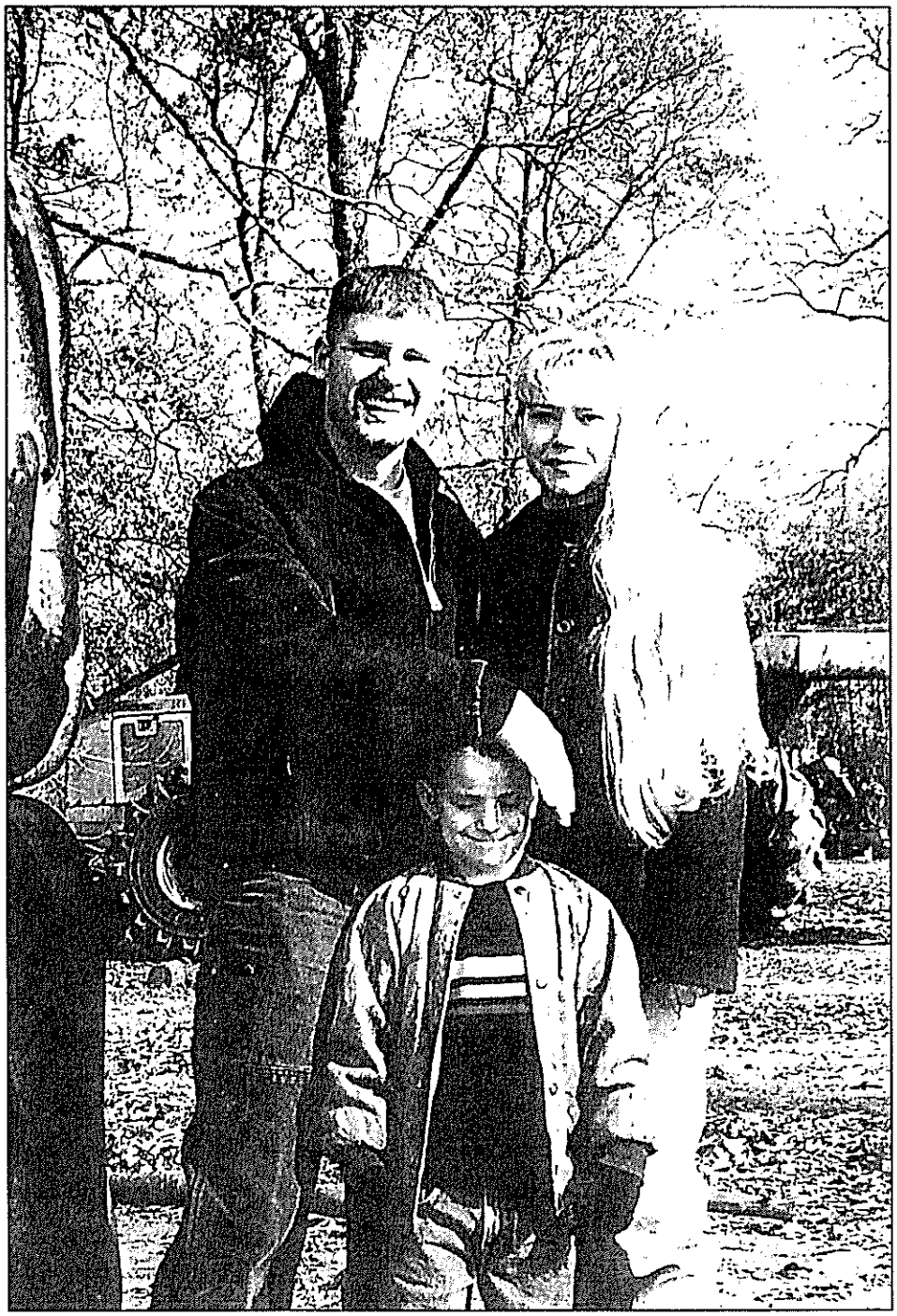
On January 10, 2001, I had a call from Hughes Simpson, TFS coordinator for BMP training, who works out of the Lufkin office at Cudlipp Center. "We've checked our records," Hughes said, "and confirmed that the 2000th logger went through the BMP workshop we held in December 2000 at Diboll. We plan to recognize the man with a small ceremony, certificate and some pictures. You're invited to join us and, if you think it's appropriate, interview the man for a published report."

I said yes and thank you and was told a date, January 19, 2001 at the home of James Oren Metts, Jr. of Cleveland. Now the Metts name means good people and good loggers, everyone that I know. Problem was, at the time, I didn't know this particular Metts and to be honest, I was just a little apprehensive about how to react if I got to Cleveland and found the #2000 only went to the training because he had to have the SFI Pro Logger certificate to deliver and sell gatewood.

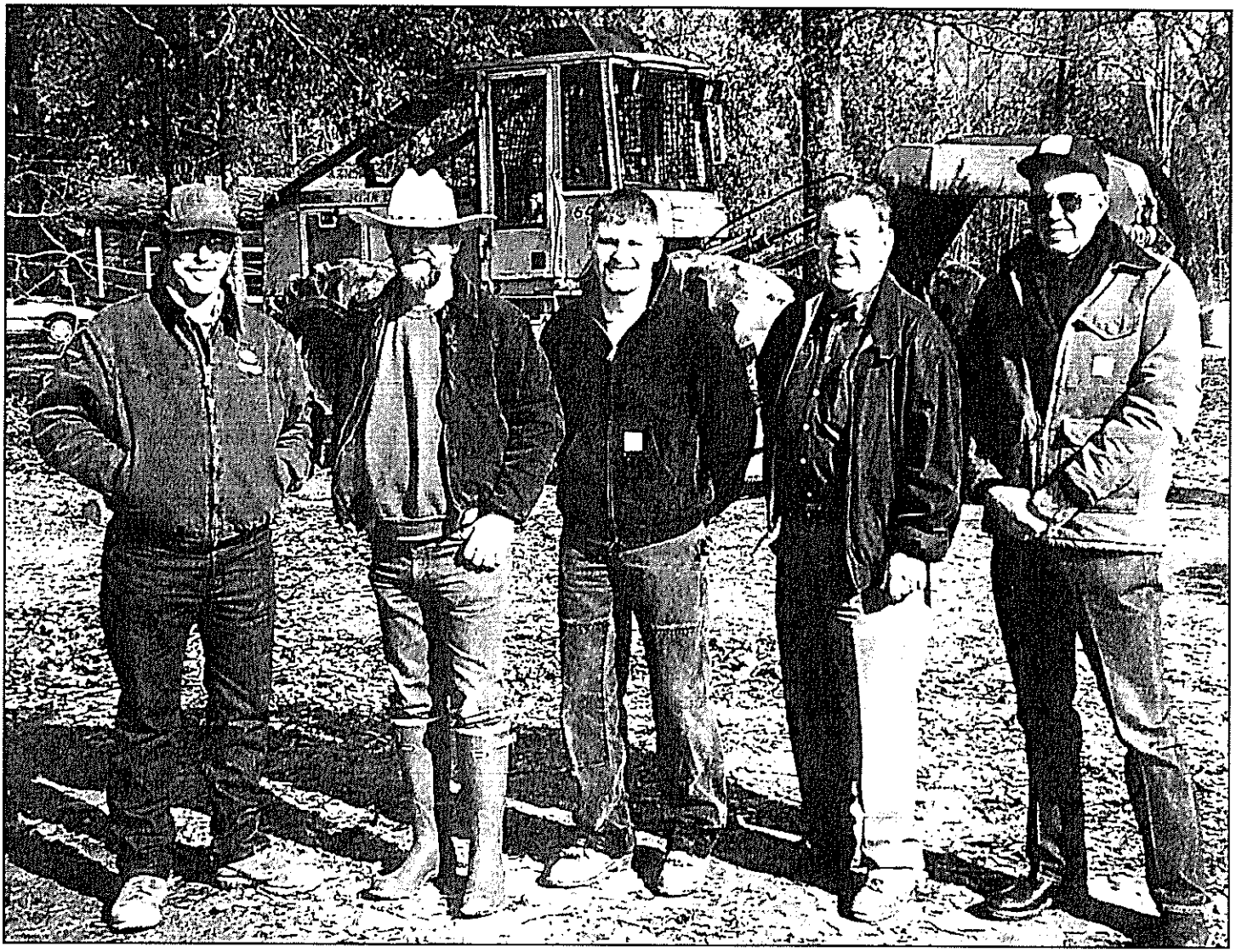
My anxiety was totally unnecessary. James Oren (Jamie) Metts, Jr. is an impressive young man, dedicated to good stewardship — to his family, to God, to professionalism in his work as a logger. He and his wife Angela have a little boy, Dustin, who really likes the big logging equipment but is a little bit uncomfortable with strangers.

Jamie is at least the 4th generation in his family to work as a logger.

(Continued on page 7)



James Oren Metts, Jr., his wife, Angela, and son Dustin



Pictured (l to r): Danny Ructor, James Oren Metts, James Oren Metts, Jr., Bob Currie, & E.C. "Curly" Metts

His dad, James Oren Metts, graduated from Splendora High School in 1974, where he met Sharon McKenna, now his wife of 27 years. "I was not an A student," he said, "but Papa encouraged me to study — he gave me 25¢ for each A on my report card — and that resulted in more learning than I would have gotten otherwise. I worked for Pop when he got back into logging (after 20 years in construction). We'd start a job by picking up any garbage or trash that was on or near the jobsite. I'd argue and tell him, "but we didn't put it there." And he'd say, "I know that, but people passing by won't know — they'll think we did — it will look better cleaned up and we'll be more likely to get another job if this one is done right."

Going The Extra Mile

Danny Ructor, Chairman of Texas Logging Council, was on hand to help present the TFS plaque recognizing the 2000th BMP trainee. "A lot of folks in this industry don't realize how much extra work loggers sometimes have to do to leave a job looking good — to make a positive impression on the public," Danny says. "It would make foresters better and would build better relations if they had to earn a living logging for 12 months before being recognized as a professional forester."

James agrees with that and he's convinced that it always pays to do good work. "Most of our work now is on land where Pop has worked before. People will call us back because they know we'll take care of the land."

E. C. 'Curly' Metts of Cleveland is the primary influence in the work habits of his son, James, and grandson, Jamie. Curly believes that if a job is worth doing, it should be done right. "I started working with my dad, Frank Metts, in 1941," he said. "I was just a kid but I learned that carrying the measuring stick was for a purpose — to cut cross-ties the right length and if you didn't measure right, it was better not to measure at all."

(Continued on page 8)

Hughes Simpson, left, presents certificate to James Oren Metts, Jr. for being the 2000th logger to complete BMP training.

Curly left the woods and worked in construction from the 50s to the 70s. As a heavy-lift crane operator for Brown & Root, he helped build the Kirby mill at Dolan, later bought and operated by L-P. "I got to know the mill people and when they were ready to start buying logs. I bought a truck and started delivering to them. My wife, Gaynell (Williamson), grew up in a logging family — the Williamsons were hardwood loggers around Splendora — and she once said she would never marry a logger. But we both love the Lord and love working in the woods He created and I reckon she's probably gonna stay married to a logger — we're in our 46th year together."

Good Reputation is Valuable

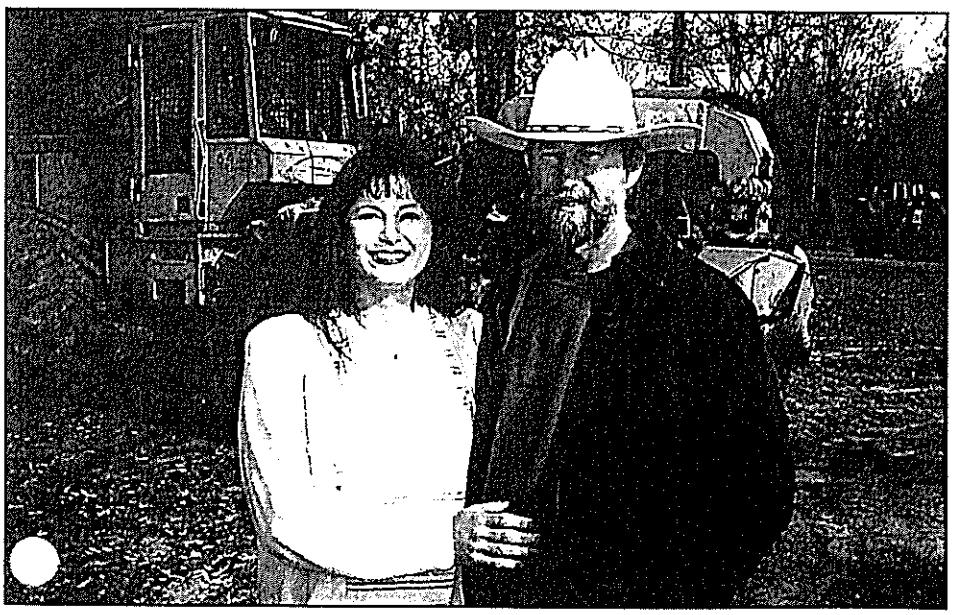
Curly buys mostly small tracts of pine and hardwood. Naturally, there are new people to meet and work with but they now are going back for the third time on some tracts. "The Moorheads estate is a good example," Curly says. "I cut Mr. Moorhead's timber years before he passed away and continue to work the timber for his wife and family. We've also done beetle control salvage work for Stuart Clark on Rice University forest land."

E. C. Metts Logging is a family affair. Mr. Metts has an old timber deed where his dad, Frank, bought timber for $3.50 per MBF (he sold it for $4.00). James and Jamie are proud of the high standard set by Curly. "Pop bought a tract a few years back for a lump sum. When it over-cut what he'd estimated, he went back and paid the landowner for the over-cut," James said.

"Most loggers are common sense folks — they're sometimes required to do stuff that's not necessarily good — but Papa is the kind of man that does what is right, even when he doesn't have to," Jamie commented.

Curly responded, "We're working with a crop. If we don't harvest it properly, God will do it for us. It's foolish to leave a stand overstocked and have trees die when we can thin and have a better, healthier stand and get paid for our trouble."

While Curly has one truck, James contracts most of Metts hauling along with brother-in-law Greg McKenna. They run Macks with folding-pole trailers. James says when they went to South Carolina to help clean up after Hugo, "we'd have people watching every time we folded our trailers — folding poles were new to them. But I understand they're fairly common there now."



James Oren Metts and his wife, Sharon

Giving Thanks to Whom It's Due

Curly and Gaynell have also taught the family to love and trust God. "Pop always gives thanks for God's blessings," Jamie says. "Even in '94 when it was so wet we hadn't worked in 3 months, he'd pray and thank God for the rain and know in his heart that He will bless us! And He does."

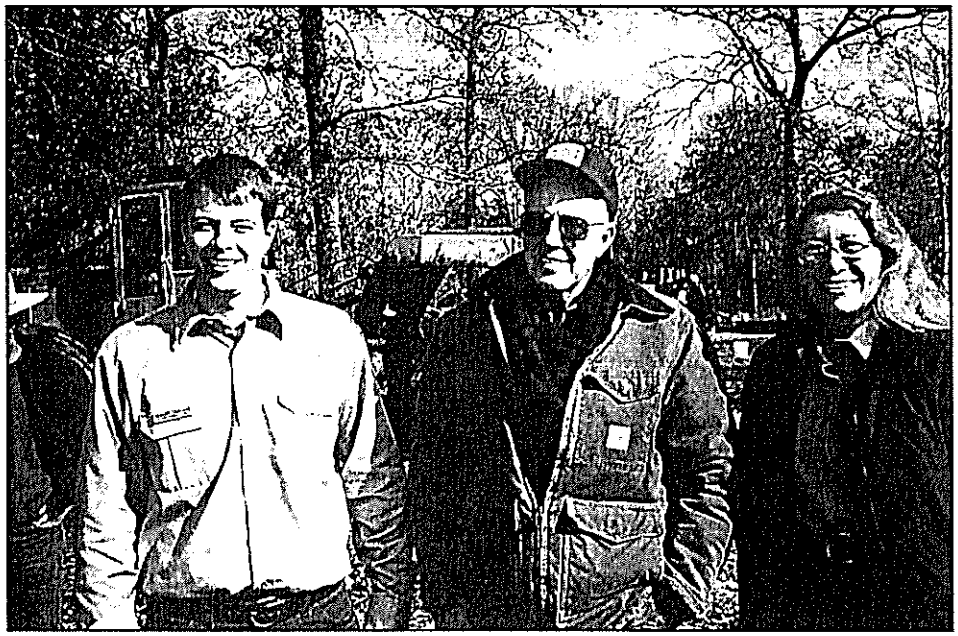
Mr. Simpson, the TFS forester who started this with his phone call,

"If one truly has lost hope, one would not be around to say so." -- Eric Bentley

said, "It really shows the commitment to good work when loggers like the Metts equip themselves properly and attend the professional courses in BMPs, etc. in order to do a better job."

It does cost extra to log carefully. Wide tires, mats and proper stream crossings cost more and take longer than the 'quick and easy.' But as Curly Metts says, it's better to do the job right. With 'green labeling' standards being set by increasing numbers of consumers, it's not only right in the eyes of the public and good for the land, it's the best way for U.S. producers to earn our share of the forest products market.

Thanks to Hughes Simpson for his thoughtfulness in looking back and recognizing a milestone in Texas BMP training. And thanks to the Metts family for having practiced good stewardship long before Jamie attended the Diboll workshop. I join Danny Ructor in saluting the family by saying "I'm proud to know the Metts family — they are truly independent contractors and a credit to themselves, to the profession and to Texas Logging Council."



Hughes Simpson, E.C. "Curly" Metts, and Donna Work

James (Jamie) Oren Metts, Jr., E. C. "Curly" Metts, James Oren Metts, and Jamie's son, Dustin, in wheel.

Teachers' Conservation Institute

PHASE II

After such a great week, many educators want to come back for more. More is what they get in Phase II - more heat, more ticks, more chiggers, more ice cream, more foresters, more learning and more fun!

Congratulations to these Phase II Participants and New PLT Facilitators! Cynthia Ward, Elly Nisayas, Jacquie Moore, Jim Russell, John Servello, Lynn Firmin, Mary Moorehead, Paula Brownlee, Roxie Scharer, Scarlett Rogers, Teri Owen and Thomas Smith.

Special Thanks to these Phase II Volunteers and Presenters!

Volunteers: David Grant, session leader, Temple-Inland Forest Products Company; Susie Shockley, Texas Forest Service; Chris Brown, Texas Forest Service; Spencer Burke, Louisiana Pacific; and Bob Lacher, International Paper.

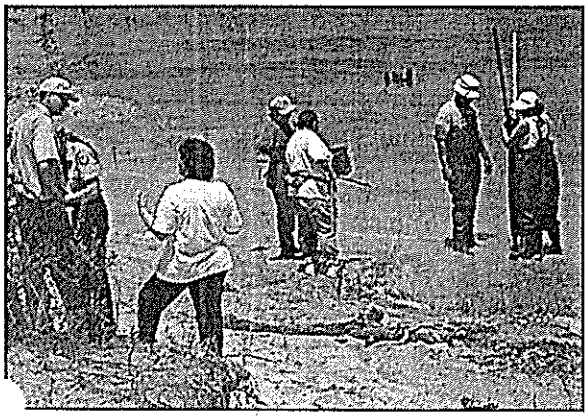
Presenters: John Ippolito, USFS; Donna Work & Hughes Simpson, TFS; Ray Stoner, NRCS; Tim Flynt, International Paper; and Buddy Hollis, Naturalist.

What a view!!

Identifying aquatic wildlife with Donna Work, TFS.

Identifying soil layers with Bob Lacher, IP.

Exploring soil



Collecting benthic macro-organisms to measure water quality with Donna Work and Hughes Simpson, TFS.

Examining a pitcher plant bog.

Comparing soil ty

BMP Training Workshop Gets New Approval

By Hughes Simpson - BMP Project Forester, Texas Forest Service

Most professionals would agree that in order to succeed, you must stay up to date with the topics, issues, and new technologies that are facing your occupation. The Society of American Foresters has a program that allows our profession to do just that, and now even includes a course offered by the Texas Forest Service.

The Texas Forest Service's BMP Training Workshop was recently certified for 3 hours of continuing forestry education credit by the Society of American Foresters. This nonprofit organization represents more than 17,000 professional foresters and natural resource professionals, and is the scientific and educational association for forestry in the United States. The Society's primary objective is to advance the science, technology, education, and practice of professional forestry for the benefit of all society.

The Continuing Forestry Education (CFE) Program is designed to reward and recognize those who pursue a program of continuing education and professional development. "Due to the increasing social significance of our country's forest resources, increased public awareness, and rapid technological changes, it is imperative that foresters participate in activities that advance their knowledge of new research and technologies," said George Weick, CFE State contact for Texas.

This voluntary and nationwide program has the basic requirement of completing 150 contact hours in a three year period. There are 6 main categories that qualify for contact hours, including attending forestry workshops, writing technical publications, and even holding office in professional organizations.

The BMP training workshop is a one day seminar that consists of an indoor morning session of discussions, videos, and a slide presentation. After lunch, the class visits a recently harvested tract and discusses on-the-ground applications of Best Management Practices. The importance of protecting water quality is stressed to the students, as well as what might happen if forestry regulations were in effect.

If you are interested in finding out more information about the SAF Continuing Forestry Education Program or upcoming activities, please contact George Weick at (936) 639-8572 (gweick@fs.fed.us). The next time the Best Management Practices workshop will be offered is June 6, 7, 8 and 11, and July 12 and 13. To register for this workshop, please contact the Texas Forestry Association (936) 632-8733. For more information on protecting water quality through Best Management Practices, please contact the Texas Forest Service at the Lufkin Office (936) 639-8180.

The Stephen F. Austin Live Oak

By: John Boyette

Resource Development Forester, Texas Forest Service

Just outside the sleepy little community of West Columbia in Brazoria County, resides a majestic

1830. McKinstry was one of the founding fathers of the Republic of Texas. He served as a soldier in the

Texas, died on December 27, 1836.

The site is now owned by Janie

plant some of the trees on the campus of Stephen F. Austin State University. Working with the

Rusk/Smith County Landowners Rallied to Activate a New Association

By Christie Potts

Over 100 landowners from around northeast Texas attended a workshop on November 10th to learn about the benefits of forest management and membership in local landowner associations. The Sustainable Forestry Initiative℠ Committee of the Texas Forestry Association lined up exceptional speakers to discuss Best Management Practices, forest economics and tax incentives, choosing a quality logger, professional forestry consultants, the basics of reforestation, new forestry legislation, and managing for wildlife.

The goal of the workshop was twofold. The first objective was to provide information to landowners in Rusk and Smith counties about the current state of forestry and proper timber management practices. Secondly, we wanted to assess the need or interest in establishing a forest landowner association in these counties.

Moderators, Christie Potts and Daniel Duncum, from the Texas Forest Service helped keep the show running smoothly. Even though the program ran a little over on time, the participants enjoyed the delicious barbecue lunch sponsored by the Texas Forestry Association. The landowners gave rave reviews of the speakers and topics covered by the conference.

The workshop served as a foundation to bring together quality leaders and knowledgeable landowners that want to have a voice in the forestry community. Several members and possible leaders were identified through

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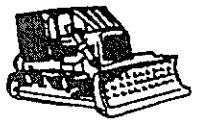

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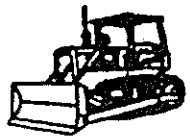
Raking • Bedding • Dump Truck Work



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NEWS

from the Texas Forest Service

September 1, 1999

Contact: Donna Work
(409) 639-8180
dmw@inu.net

Also available online:
http://txforestservice.tamu.edu

Texas Forest Service Water Quality Protection Program Coming to the Cypress Creek Area

The Texas Forest Service has recently received a grant from the Environmental Protection Agency to provide information to the public on Forestry Best Management Practices. Best Management Practices are sound logging practices that help reduce soil erosion and protect water quality. The target area for this three-year educational project covers the Cypress Creek Basin. Twelve counties, in part or whole, are a part of this watershed, which means these lands drain into Cypress Creek and its associated tributaries.

The Texas Forest Service plans to use radio, television, newsletters, displays, demonstrations, workshops, presentations to civic groups, and other means to get the message out of how forest landowners can be good stewards of their land. All residents of the area will benefit from concerted efforts to reduce sedimentation from forestry practices.

The Best Management Practices Project of the Texas Forest Service is committed to working with members of the forestry community to continue to keep these forestry management practices on a voluntary, non-regulatory basis. If it can be shown that the public, private and industrial sectors are following these protective measures on their own initiative, there is a better chance that mandatory government regulations will not be implemented in the future. Public awareness is key in meeting this goal and is the driving force behind this project.

For information on Best Management Practices and this Project, call the Texas Forest Service BMP office in Lufkin at (409) 639-8180, or the TFS office for your county. You can also find helpful information on the TFS Homepage, http://txforestservice.tamu.edu.

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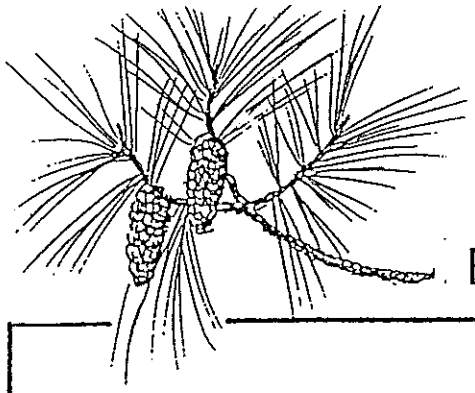
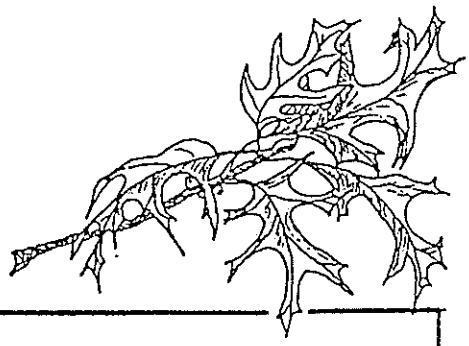
TEXAS FOREST SERVICE
The Texas A&M University System



Marion County Forestry Association



December 17, 1999

Dear Marion County Forestry Association Member,

The Texas Forest Service has arranged for a great program for our next meeting which will be held in conjunction with the Cass County Forest Owners Association. The meeting will take place on Friday, 14 January 2000 in Linden at the El Inca Restaurant (Royal Inn Motel) on US 59. The meeting will begin promptly at 10:15 AM.

This meeting will combine a tour with a program held at the restaurant. The tour will be of the new grade hardwood mill recently opened by Ward Timber Company in Linden. Hard hats and safety glasses will be required, so bring them if you have them.

The program will feature Ed Barron, Associate Director of the Texas Forest Service, who will provide an update on the Texas Reforestation and Conservation act of 1999 as it relates to property taxes. Following Ed will be Mr. Ralph Beal with IGF Insurance who will outline a new insurance plan available for replanting pine seedlings and for merchantable timber.

In order to arrange for transportation to the mill, safety equipment, and restaurant accommodations, an RSVP is required! Please RSVP by calling me at 903-665-7400 no later than 10:00 AM on 10 January. I look forward to hearing from you and hope you can make this great program.

Sincerely,

R. E. Lee McNeely
District Forester

Enclosure

Jasper-Newton Counties Forest Landowners Association

TEXAS REFORESTATION AND CONSERVATION ACT OF 1999 (SB977)

We will be fortunate to have Burl Carraway, Texas Forest Service Best Management Practice Forester speak to our group at this membership meeting. Burl will present an overview of SB 977, forms and procedures, instructions for submitting evidence to TFS and many other phases of this new law. It should prove to be a very informative meeting for all landowners.

WHEN: July 18, 2000 - 11:00 a.m.

WHERE: Catfish Cabin - Jasper, Texas - U.S. Highway 96 North

Don't miss this important meeting. SEND NO MONEY. You can order from the menu at the Catfish Cabin and pay for your meal after the meeting. Send in your reservation by Monday, July 17th or call (409) 423-2890.

>>

RESERVATION FORM

To: JNCFLA
P. O. Drawer 280
Kirbyville, Texas 75956

Please reserve _________ places at the Texas Reforestation and Conservation Act of 1999 meeting at the Catfish Cabin on July 18th.

Signed: ____

Water Quality Management Plans

Name	Acres	WQMP #	SWCD
[redacted]	304	[redacted]	Harrison Co.
	365		Sulphur-Cypress
	243		Sulphur-Cypress
	200		Cherokee Co.
	2400		Cherokee Co.
	3850		Davey Crockett-Trinity
	29		Marion-Cass
	450		Rusk
	445		Rusk
	1733		Montgomery Co.

Total Acres covered: 10019

Note: * These plans have been certified. All others are pending.

Longview News-Journal, Tuesday, May 22, 2001 3B

Water program to offer site specific water quality plans

The Texas Forest Service along with local Soil and Water Conservation Districts is assisting forest landowners in writing site specific forestry water quality management plans.

The program affords landowners a chance to comply with state water quality law and the plans are designed to ensure that forestry operations are carried out following Best Management Practices to help protect water quality and prevent soil erosion, said an announcement from the Forest Service.

Once the plan has been written and approved by the Texas Sate Soil and Water Conservation Board, it becomes certified and the landowner must begin implementing the scheduled events. A certified plan carries the same legal status as an entity operating with a Texas Natural Resource Conservation Commission point source pollution permit.

The Forest Service said other benefits include: meeting with experts to review and make recommendations for an individual's plan, installing conservation measures over a period of time, changing the plan to meet needs, assuring landowners are operating in an environmentally friendly manner and the possibility of cost sharing opportunities.

A study by the Texas Agricultural Extension Service states, "Projections indicate that by 2050, demands on the state's water will have outgrown the supply of freshwater by 15 percent."

"Each consumer will have to play a role in protecting water quality and conserving this necessary resource," said the Forest Service announcement. "Forest landowners are no different, in fact their role may be even more important," it said. The USDA Forest Service says about 80 percent of the nation's freshwater resources originate on forest. In Texas, 61 percent of the timberland is owned by private landowners.

County Forest Landowner Association Newsletter

First Quarter 2002

Next Meeting

Date: xxxxxxxxxxxxx
xxxxxxxxxxxxx

Time: xxxxxxxxxxxxx

Place: xxxxxxxxxxxxx
xxxxxxxxxxxxx

Inside

Texas Forest Service Introduces New Program to Protect Water Quality -*Hughes Simpson, BMP Project Forester, Texas Forest Service*

Every person places a demand on our water resources in one way or another, from drinking and bathing to recreational uses such as fishing or swimming. Demands on our state's water resources are at an all time high and will become the number one issue that Texas will have to face in the coming years. According to a study done by the Texas Cooperative Extension Agency, "Projections indicate that by 2050, demands on the state's water will have outgrown the supply of freshwater by 35 percent."

Ensuring that this water shortage projection does not come true is everyone's responsibility. Well-managed forests can help alleviate water pollution. Over 60% of the forestland in Texas is owned by private landowners. Implementing a forestry water quality management plan is one way they can help do their part.

The Texas Forest Service in cooperation with the Texas State Soil and Water Conservation Board is offering forest landowners assistance in writing site specific forestry water quality management plans. These plans are part of a voluntary program designed to allow landowners to be proactive in protecting water quality. The plans are written to mesh with individual landowner's objectives and to ensure that forestry operations are carried out in an environmentally friendly manner using Best Management Practices (BMPs).

A forestry water quality management plan is a written document that outlines a course of action for a specified time period that contains specific recommendations about using BMPs to prevent erosion and protect water quality. The Texas Forest Service has pioneered the use of these plans for forest landowners so they can receive the same benefits as other agricultural operators.

Forestry Best Management Practices are an effective and practical means of preventing or reducing the amount of water pollution generated by forest management. In 1990, the Texas Forest Service started the Best Management Practices Project, which encourages landowners to protect water quality through voluntary means. This project provides technical assistance to landowners, professional workshops for loggers, public education, forestry water quality management plans, and random forestry site inspections.

Through legislation passed by the 73rd Texas legislature in Senate Bill 503, these BMP management plans written by landowners to manage their land according to their own personal goals can become "certified." Major benefits from participating in this program include:

- Certified plans are granted the same legal status as a TNRCC point source pollution permit
- Landowners comply with governmental water codes voluntarily
- Landowners learn more about managing their forest land from the foresters and other experts who review the management plan
- Plans can be revised to continue to meet the landowner's needs as they change
- Cost share opportunities may be available

To request assistance for a water quality management plan, contact your local Texas Forest Service office. For more information on this project or forestry best management practices, contact Hughes Simpson, TFS BMP Project Forester, (936) 639-8180 or hsimpson@tfs.tamu.edu.

Water Quality Management Plans Available For Forest Landowners

By: Jacob Donellan, TFS BMP Project

Every person places a demand on our water resources in one way or another, from drinking and bathing to recreational uses such as fishing or boating. Demands on our state's water resources are at an all time high. According to a study done by the Texas Agriculture Extension Service, "Projections indicate that by 2050, demands on the state's water will have outgrown the supply of freshwater by 15 percent."

Each consumer will have to play a role in protecting water quality and conserving this necessary resource. Forest landowners are no different, in fact their role may be even more important. According to a publication by the USDA Forest Service, Water & the Forest Service, "...about 80 percent of our Nation's freshwater resources originate on forest." In Texas, 61 percent of the timberland is owned by private landowners. These two facts combine to indicate that forest landowners in Texas play an integral role in providing the state with clean, fresh water.

The Texas Forest Service with cooperation from local Soil and Water Conservation Districts is assisting forest landowners in writing site specific forestry water quality management plans (WQMPs). This program affords landowners an opportunity to comply with state water quality laws through a traditional voluntary based method. The plans are designed to ensure that forestry operations are carried out following Best Management Practices to help protect water quality and prevent soil erosion.

Once the WQMP has been written and then approved by the Texas State

Continued on page 11

Canadian Softwood Lumber Update

On Monday, April 23, 2001, the Department of Commerce announced the initiation of antidumping and countervailing duty investigations on certain softwood lumber from Canada. The products covered by these investigations are softwood lumber, flooring and siding.

Petitioners

Petitions were filed by the Coalition for Fair Lumber Imports Executive Committee, the United Brotherhood of Carpenters and Joiners, and the Paper, Allied-Industrial, Chemical and Energy Workers International Union. In addition, on April 20, 2001, the petitions were amended to include the following four companies individually as petitioners: Moose River Lumber Co, Shearer Lumber Products, Shuqualak Lumber Co. and Tolleson Lumber Co, Inc.

Case Calendars

Definitions

DOC - Department of Commerce; ITC - Interstate Trade Commission
AD - Antidumping Duty ; CVD - Countervailing Duty

ACTION	AD	CVD
Petition Filed	April 2, 2001	April 2, 2001
DOC Initiation	April 23, 2001	April 23, 2001
ITC Preliminary Determination	May 17, 2001	May 17, 2001
DOC Preliminary Determination*	Sept. 10, 2001	June 27, 2001

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Water Quality Management, *continued from page 5*

Soil and Water Conservation Board, it becomes certified and the landowner must begin implementing the scheduled events. A certified WQMP carries the same legal status as an entity operating with a Texas Natural Resource Conservation Commission point source pollution permit. Other benefits include: it provides an opportunity to meet with experts to review and make recommendations to your plan; allows you to install conservation measures over a period of time; the plan can change to continue to meet your needs; a forest landowner operating with a certified WQMP can be sure that they are operating in an environmentally friendly manner; and cost share opportunities are possible.

To request assistance for a site-specific plan for your land, contact your local Texas Forest Service office. For more information, contact Jacob Donellan, TFS BMP Project, (903) 665-7400 or jdonellan@tfs.tamu.edu

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