

APPENDIX E: STATE AND PRIVATE FORESTRY PROGRAMS

Education and Training

Education and training are vital to effective BMP implementation. Educating and training loggers and landowners about the importance and use of BMPs is an effective way to reduce water quality effects from forest operations because harvesters and landowners are responsible for forest harvesting and decisions concerning the management of much of the forested land in the Nation. A logger education program that has been adopted in various forms and under numerous names in many states is the Logger Education to Advance Professionalism (LEAP) program (APA, 1995). It is modeled after Vermont's very successful Silviculture Education for Loggers Project and began as a national pilot program of the USDA Extension Service to promote responsible forest BMPs and to teach forest ecology and silviculture to loggers. These programs are based on the premise that it is important to teach forest ecology and silviculture to loggers because professional foresters supervise less than a third of all the acres harvested in the United States while loggers are involved in all of the harvests. Before these programs, few people employed in logging had training in forestry and silviculture, and the logger education programs are changing that situation. To accomplish its goal, logger training emphasizes five areas—safety and first aid, business management, harvesting operations, professionalism, and forest ecology and silviculture.

A USDA Natural Resources Conservation Service (NRCS) program, *Soil and Water Conservation Assistance* (SWCA), provides cost share and incentive payments to farmers and ranchers to voluntarily address threats to soil, water, and related natural resources, including forest land, grazing land, wetlands, and wildlife habitat. SWCA can help landowners comply with federal and state environmental laws and make beneficial, cost-effective changes their land management practices. Through the nearly 3,000 Soil and Water Conservation Districts nationwide with 2,500 field offices, nearly a million private landowners are assisted annually with land management decisions.

NRCS also administers the Forestry Incentives Program (FIP), which supports good forest management practices on privately owned, nonindustrial forest lands nationwide. FIP is designed to benefit the environment while meeting future demands for wood products. Eligible practices are tree planting, timber stand improvement, site preparation for natural regeneration, and other related activities. FIP is a nationwide program available in counties designated on the basis of a Forest Service survey of total eligible private timber acreage that is potentially suitable for production of timber products. Federal cost-share money is available—with a limit of \$10,000 per person per year with the stipulation that no more than 65 percent of the cost may be paid. A local USDA office, state forester, conservation district, or Cooperative Extension office can provide information on whether a particular county participates in FIP.

Currently there are nearly 500 million acres of non-federal forests in the United States. More than 50 percent of these acres are privately owned (USDA Forest Service).

Numerous non-governmental organizations, such as the Forest Stewards Guild (<http://www.foreststewardsguild.org/>) and National Network of Forest Practitioners (<http://www.nnfp.org/>) are also available to be contacted for assistance in sustainable management of forest land.

Cooperative Forestry Programs

Cooperative Forestry is a nationwide program funded through Congress and administered nationally by the USDA Forest Service. Since 1978, the USDA has connected rural, urban, and nonindustrial private forest (NIPF) landowners with resources and ideas to assist with the care of their forests. The Cooperative Forestry program provides technical and financial assistance through partnerships with the state and private forestry organizations (USDA Forest Service, 1999). The Cooperative Forestry program was created under section 2101 of Title 16 of the United States Code, in which it is stated that it is the policy of Congress that the Secretary of Agriculture work through and in cooperation with state foresters, or equivalent state officials, nongovernmental organizations, and the private sector in implementing federal programs affecting non-federal forestlands. The landowner assistance programs covered under Cooperative Forestry are the Forest Legacy Program, the Forest Stewardship Program, and the Forest Land Enhancement Program. The Forest Service's Web site for Forestry Landowner Assistance, <http://www.fs.fed.us/spf/coop/>, provides further information about the programs discussed below.

- *Forest Legacy Program.* The Forest Legacy Program (FLP), a federal program in partnership with states, supports state efforts to protect environmentally sensitive forest lands. Designed to encourage the protection of privately owned forest lands, FLP is an entirely voluntary program. To maximize the public benefits it achieves, the program focuses on the acquisition of partial interests in privately owned forest lands. FLP helps the states develop and carry out their forest conservation plans. It encourages and supports acquisition of conservation easements, legally binding agreements transferring a negotiated set of property rights from one party to another, without removing the property from private ownership. Most FLP conservation easements restrict development, require sustainable forestry practices, and protect other values.
- *Forest Stewardship Program.* This program helps private forest landowners develop plans for the sustainable management of their forests. This is accomplished through active forest management for present and future landowners, increasing the economic value of the timber along with providing environmental benefits. The Forest Service also provides public outreach programs to assist NIPF landowners with information regarding seedling production and tree stand improvements.

The 2002 Farm Bill incorporates the following cooperative forestry assistance programs:

- *Forest Land Enhancement Program:* The Forest Land Enhancement Program (FLEP) is established to provide financial, technical, educational and related assistance to state foresters to assist private landowners in actively managing their land. Note that the FLEP replaces the Stewardship Incentives Program (SIP) and the Forestry Incentives Program (FIP). To be eligible for cost-share assistance under the FLEP on up to 1,000 acres, a landowner must agree to develop and implement for not less than 10 years a management plan that has been approved by the state forester.

Cost share payments will be available to landowners for up to 75 percent of the total cost of implementing the plan.

- **Enhanced Community Fire Protection:** Recognizing the significant federal interest in enhancing community protection from wildfire, the Department of Agriculture will cooperate with state foresters to manage lands to (1) focus the federal role in promoting optimal firefighting efficiency at the federal, state and local levels; (2) expand outreach and education programs to homeowners and communities about fire protection; and (3) establish space around homes and property that is defensible against wildfire.

Congress passed the Healthy Forests Restoration Act of 2003 (P.L. 108-148) on December 3, 2003, based on legislation proposed by the Bush Administration. The law provides critical tools needed to fully implement the Healthy Forests Initiative and the funding necessary to reduce wildfire risks and improve forest and rangeland health (USDOJ, USDA, 2004). The Healthy Forests Restoration Act establishes procedures to expedite forest and rangeland restoration projects on Forest Service and BLM lands. It focuses on lands (1) near communities in the wildland urban interface, (2) in high risk municipal watersheds, (3) that provide important habitat for threatened and endangered species where catastrophic wildfire threatens the survival of the species, and (4) where insects or disease are destroying the forest and increasing the threat of catastrophic wildfire. The law:

- Helps communities use wood, brush, and other plant materials removed in forest health projects as a fuel supply for biomass energy.
- Authorizes a program to support community-based watershed forestry partnerships that address critical forest stewardship and watershed protection and restoration needs at the state and local level.
- Directs research focused on the early detection and containment of insect and disease infestations.
- Establishes a private forestland easement program focused on recovering forest ecosystem types and protecting valuable wildlife habitat.

The Watershed Forestry Assistance Program, created by the law, enacts the Watershed Forestry Cost-Share Program. The cost-share program provides up to 75 percent of project funding to communities, nonprofit groups, and NIPF landowners for watershed forestry projects that:

- Use trees as solutions to water quality problems in urban and rural areas.
- Employ community-based planning, involvement, and action through State, local and nonprofit partnerships.
- Apply and disseminate monitoring information on forestry best-management practices relating to watershed forestry.
- Implement watershed-scale forest management activities and conservation planning.
- Restore wetland and stream-side forests and establish riparian vegetative buffers.

Forest Land Ownership

Nonindustrial private forest land (NIPF) owners in the United States own 58 percent of all timberland. Of this, 29 percent is owned by farmers who can benefit from the numerous provisions of the 2002 Farm Bill that involve land management. The rest of the timberland in the United States is owned by the federal government (20 percent), the forest industry (14 percent), state government (6 percent), and counties and municipalities (2 percent). Because of the large percentage of timberland owned by nonindustrial private forest land owners, an important part of protecting forests and water quality during forest harvest is educating those landowners about forest management and proper timber harvesting techniques to protect water quality (Powell et al., 1994). Birch (1996a) reports that private forest land owners (including industrial owners) have diverse reasons for owning their land, including "... it's just part of the land" (40 percent), a private source for forest products (8 percent), recreation and aesthetic enjoyment (23 percent), investment (9 percent), and timber production (3 percent). The last group, those who hold their land for timber production, represents 29 percent of private forest land ownership. It is estimated (Birch, 1996a) that 5 percent of private forest land owners have a written management plan and these owners control 39 percent of private forest land.

With so much land owned and controlled by private forest land owners, and specifically NIPF owners, it is crucial that the importance of protecting water quality be considered as part of NIPF harvesting. Some private landowners may not place an emphasis on water quality protection when planning a harvest because it appears to provide benefits only for downstream users, not for the harvesting landowner. Other management measures—such as site preparation to improve regeneration—provide direct benefits to landowners and are therefore more likely to be part of the landowner's harvest plan (Alden et al., 1996).

Forest Program Administration and BMP Effectiveness

A survey to compare the attitudes of persons involved with forestry program administration and implementation about the effectiveness of various approaches to protecting water quality and forests in general rated methods for protecting water quality from most effective to least effective as follows (Ellefson et al., 1995): technical assistance, fiscal incentives, educational programs, voluntary programs, regulatory programs, and tax incentives (Figure E-1).

In this survey, forestry program administrators were asked to rate specifically the effectiveness of educational programs for protecting water quality: 19 were neutral about their effectiveness, 17 said that they thought they were effective, and 12 thought that they were ineffective. The results for a similar rating of the effectiveness of technical assistance programs for protecting water quality showed that 26 administrators thought they were effective, 17 were neutral about their effectiveness, and 6 thought them to be ineffective.

The importance of education in forest harvesting and forest stewardship can be judged from the fact that many state departments of forestry have BMP guidebooks and education programs geared not only to loggers and industrial owners but also to the landowners who are not trained in forest management and harvesting. A review of some states' educational programs is provided below, and this review represents the variety of

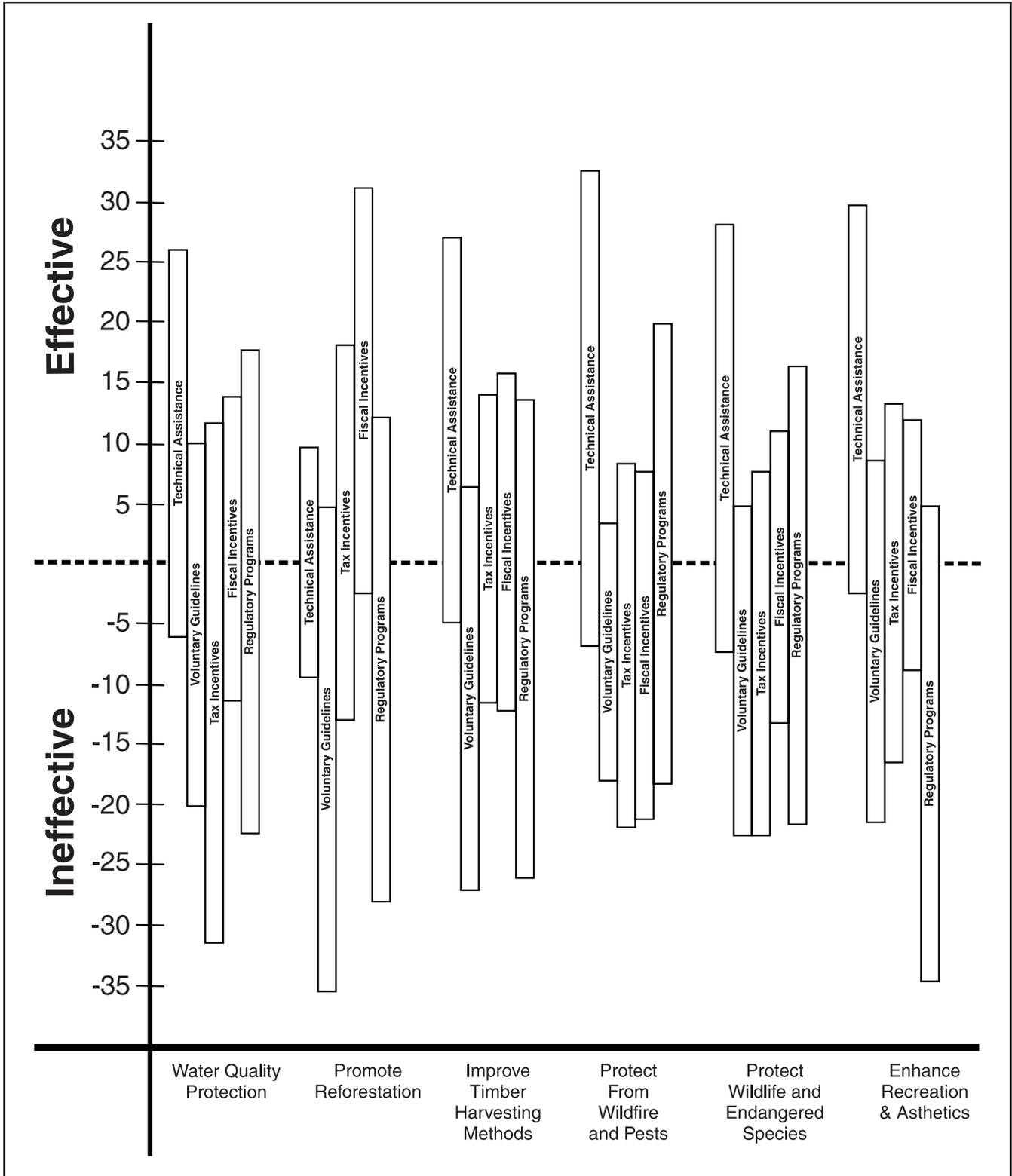


Figure E-1. Ratings of the effectiveness of various types of programs for accomplishing specific forestry objectives. Height of line above or below the center line indicates the number of state program administrators who rated the program type as effective or ineffective, respectively, for accomplishing the specific objective (Ellefson et al., 1995).

educational and technical assistance programs offered by states and the importance states place on education.

Examples of State Forestry Assistance Programs

Provided below are some examples of state programs for forestry assistance and education. Links to information on state forest protection and education programs can be found at the Web site www.usabmp.net.

Washington State

In 1999, Washington State created a Forestry Riparian Easement Program to be managed by a Small Forest Landowner Office within DNR. Responding to the federal Endangered Species Act by listing several salmon species and authorizing the Forest Practices Board to adopt rules for salmon recovery, the size of riparian buffers was increased and further measures were created to protect water quality and restore salmon habitat. Recognizing that these rules would have a disproportionate impact on small forest landowners, the easement program under the Forestry Riparian Easement Program acknowledges the importance of small forest landowners and the contributions they make to protect wildlife habitat. The program is also intended to help small forest landowners keep their land in forestry.

DNR's Forestry Riparian Easement Program partially compensates eligible small forest landowners in exchange for a 50-year easement on "qualifying timber." This is the timber the landowner is required to leave unharvested as a result of new forest practices rules protecting Washington's forests and fish. Landowners cannot cut or remove the qualifying timber during the easement period. The landowner still owns the property and retains full access, but has "leased" the trees and their associated riparian function to the state.

Washington's Backyard Forest Stewardship Program is especially designed for owners of small-forested parcels (from a "forested lot" up to ten acres) and anyone who owns a home in a forested environment. Guidelines for forest protection are provided on a DNR Web site (<http://www.wa.gov/dnr/htdocs/rp/stewardship/bfs/>) and can be obtained in print as well. Landowners who implement the guidelines relevant to their property can apply for recognition under the program from the state.

Virginia

The Virginia Department of Forestry (DOF) reports that surveys show most landowners sell timber and make other forest management decisions without professional advice. These same studies have demonstrated that landowners who sell timber with the assistance of a professional forester receive 50 percent more for their timber (Virginia DOF, 1998). Since professional foresters are knowledgeable of water protection BMPs, having a landowner contact a professional benefits both the landowner and the environment (Virginia Department of Forestry, 1998).

The Virginia DOF inspects harvesting sites for compliance with the Seed Tree Law and The Silvicultural Water Quality Law. During an inspection, compliance with other state and federal laws is observed so the landowner and logger can be informed and kept in

The Federal Coastal Nonpoint Pollution Control Program (6217) is designed to enhance state and local efforts to manage land use activities that degrade coastal habitats and waters.

compliance with applicable regulations. Other laws that landowners need to be aware of and in compliance with include, depending on their particular location and situation, the Chesapeake Bay Act, the Virginia Marine Resources Law, and the Federal Clean Water Act. The logger, consultant forester, industry forester, and/or the landowner are contacted by Virginia DOF during logging operations concerning BMP installation. The landowner is contacted concerning needs for forest renewal and future management.

Regardless of the origin of the request, if the landowner wishes to reforest an area or implement other recommended management practices, Virginia DOF will provide them with the names of consultants or contractors who can implement the recommended practices, and will inform them of any cost share assistance for which they might be eligible.

The Virginia DOF has the responsibility to administer and give technical approval for cost-share programs. A reforestation cost-share examination must be completed along with application forms and other paperwork for cost-share programs. For cost-share assistance, the area must be inspected for needs determination before the practice is started and after the practice is completed to determine if the practice was completed correctly. Again, required compliance with all applicable state and federal laws and regulations are checked.

Tennessee

Forestry assistance in Tennessee is handled by the Tennessee Department of Agriculture (DOA), Forestry Division. The Forestry Division trains loggers and others involved in land management in the use of logging techniques to prevent erosion and leave streams unharmed. Tennessee DOA has also developed a number of training aids for water quality, including a video, printed material, and a number of forest management demonstration sites. One of the Forestry Division's primary services is offering advice to landowners, often in person on the individual's property. A forest land owner can contact a local Area Forester to discuss management objectives for the property. The Area Forester will work through a sequence of steps to help meet the objectives. A local forestry office can also provide information on what landowner options are for managing their land. The DOA Forestry Division web site provides *A Practical Introduction to Forestry for Landowners* that gives information on a variety of forest management options and has references and links to other sources of information.

The Tennessee Reforestation Incentive Program (TRIP) was created in mid-1997 to provide financial assistance to landowners for planting trees on marginal and highly erodible crop and pasture lands. Money provided by the State Agricultural Nonpoint Water Pollution Control Fund administered by the Department of Agriculture is used to share the cost of planting trees to stabilize eroding lands and improve water quality.

Another training program available to loggers is the Master Logger Program. The mission of the Master Logger Program is "to enhance the professionalism of the Tennessee logger" through a complete educational program designed to improve the health and well-being of the logging industry and the forest resource. The Master Logger curriculum consists of five 1-day courses, one of which is on forest ecology and BMPs. Loggers attend individual sessions of the program 1 day every 2 weeks, and it takes 10 weeks to complete the workshop. Master Loggers must continue their education to retain Master Logger status. Many other states provide programs similar to the Master Logging

Program under various names, and all of the programs stem from the original pilot program of the USDA Extension Service, the LEAP program.

the number 10 years ago. The largest number of operations occur on small private forests where the landowners are typically not as familiar with the state's forest practice rules as are large industrial landowners. The state therefore puts a great deal of energy into providing information, training, and resources to landowners and operators (Oregon DOF, 1997).

The Oregon Department of Forestry's Forest Practices Program involves more than 150 people in the department's main offices and in field offices who provide face-to-face information and guidance to landowners. Program staff work with industry and environmental representatives to develop programs and incentives for encouraging sound stewardship of forest resources.

Small woodland owners in Oregon can request on-site assistance from their local service forester, who can provide information and guidance on insect and disease issues, reforestation and young growth management, financial incentives, and other forest related topics and resources. Private forest consultants are available throughout the state to provide comprehensive assistance to landowners. Consultants provide services that are beyond the scope of public agency assistance programs, such as the development of Forest Stewardship Plans.

The Oregon Forest Resource Trust provides monies for the direct cost payments of site preparation, tree planting, seedling protection, and competitive release activities. The program encourages landowners to establish and maintain healthy forests on underproducing forestlands—lands capable of growing forests but that are in brush, cropland, pasture, or that are very poorly stocked. The landowner commits to establishing a healthy “free-to-grow” forest stand and takes responsibility for seeing that the work gets done. The service forester provides technical assistance on how to complete the reforestation project and is available to provide direction with respect to the landowner's project management responsibility. If timber is harvested from the forests created with trust monies, participating landowners repay the trust (up to set amounts) with a portion of the profits. Eligible underproducing land must be at least 10 contiguous acres, zoned for forest or farm use, located in Oregon, and part of a private forestland ownership of no more than 5,000 acres. The trust can fund 100 percent of the reforestation cost up to \$100,000 every two years.

The Oregon 50% Tax Credit, the “Underproductive Forest Land Conversion Tax Credit,” encourages landowners to establish and maintain healthy and productive forests. Fifty percent of the cost of establishing a stand of trees on underproductive forestland may be applied as a credit against Oregon state taxes. The 50 percent tax credit applies on brushland, grassland, or on very poorly stocked forestland.

South Carolina

The South Carolina Forestry Commission provides timber management assistance to forest landowners in the state. Forestry Commission foresters will examine forestland and potential forestland at the request of a landowner. A written plan and map are prepared for the landowner, giving forest management recommendations that best meet the owner's needs and objectives, provided that they are compatible with good forest BMPs (South Carolina Forestry Commission, 1998). When conditions warrant, such as a request

for a detailed plan on a large tract, the Forestry Commission forester can recommend consultants or industry foresters who can be of assistance.

Two-thirds of the state's forestlands are under private ownership, and the South Carolina Forestry Commission provides assistance to these landowners geared toward educating them so that they can take an active role in managing their forests. A South Carolina Forestry Commission staff member will help the landowner put together a multiple-resource Stewardship Management Plan (SMP) that provides detailed recommendations for timber management activities designed to help prevent soil erosion and protect water quality and might also provide details on wildlife habitat improvement. Anyone who owns at least 10 acres of forestland can qualify for assistance under the SMP program.

Ohio

The Ohio Department of Natural Resources Division of Forestry participates in the Service Forestry Program, the mission of which is to develop better stewardship of the forest resources on private lands in Ohio through on-site technical assistance and the dissemination of information to landowners. There are twenty-five Service Foresters statewide that work one on one with the woodland owners. The Service Foresters are available to provide landowners with current information for the long term management of their woodlands. The Service Foresters can provide management plans and advice on how to accomplish the plan's objectives. The Service Foresters also provide landowners with technical assistance and information on tree planting projects, woodland improvement activities and timber marketing assistance. The Service Foresters also direct landowners to other education participation programs in the state.

The Ohio Forestry Association maintains a Safety Training and Certification Program for logging contractors and their employees. It is the Ohio equivalent of a LEAP program. One of the requirements for certification as a Certified Logging Company is to have employees trained to use BMPs to reduce soil erosion and improve the appearance of timber harvesting activities (Ohio Forestry Association, 1999).

California

The California Department of Forestry & Fire Protection (CDF) administers several state and federal forestry assistance programs with the goal of reducing wildland fuel loads and improving the health and productivity of private forest lands. California's Forest Improvement Program (CFIP) and other federal programs that CDF administers, offer cost-share opportunities to assist individual landowners with land management planning, conservation practices to enhance wildlife habitat, and practices to enhance the productivity of the land.

The CFIP provides technical assistance to private forest landowners, forest operators, wood processors, and public agencies. Cost share assistance is provided to private forest landowners, Resource Conservation Districts, and nonprofit watershed groups. Cost-shared activities include management planning, site preparation, tree purchase and planting, timber stand improvement, fish and wildlife habitat improvement, and land conservation practices for ownerships containing up to 5,000 acres of forest land.

A Forest Legacy Program (FLP) protects environmentally important forestland threatened with conversion to non-forest uses, such as subdivision for residential or commercial development by promoting the use of permanent conservation easements.

Maine

The Forest Policy and Management Division of the Maine Department of Conservation, Forest Service provides technical assistance, information, and educational services to forest landowners. Part of the Division's implementation of the Forest Practices Act is providing educational workshops, field demonstrations, and media presentations, and contacting landowners personally to discuss forest management issues (Maine DOC, 1998).

North Dakota

The majority of North Dakota's rural forests are privately owned. Forest resource management in the state focuses on education and assisting nonindustrial private landowners to better manage, protect, and use their natural resources. This is accomplished through the development of a forest stewardship plan and direct financial assistance for forest improvement practices. Rural forestry services are delivered through an agreement with North Dakota's local Soil Conservation Districts (NDSU, 1998).

The Environmental Quality Incentives Program (EQIP) and the Wildlife Habitat Incentives Program (WHIP) offer up to 75 percent cost-share assistance to landowners for accomplishing forest stewardship projects such as tree planting, forest stand improvement, soil and water protection, riparian protection, windbreak renovation and wildlife habitat enhancement. Eligible landowners may sign up at their local FSA office for WHIP or EQIP practices.

Technical forestry assistance is provided to more than 600 rural landowners each year in North Dakota. Since 1991, 1,405 forest stewardship plans have been requested and completed for 71,777 acres of privately-owned native and planted woodlands and 456 forest improvement practices were awarded \$548,887 in Stewardship Incentive Program cost-share funds. A total of 587 landowners enrolled 39,384 acres in the Forest Stewardship Tax Law.

Missouri

The vast majority of land in Missouri is under direct ownership and influence of private landowners. Private individuals own more than 93 percent of all land and 85 percent of forest land. The Department offers two levels of assistance based upon the landowner's need and interest in long term forest management. The two levels are Advisory Service and Management Service. Advisory Service is available to all landowners, including urban residents. This service includes group training sessions, publications, film and video loan, office consultation, insect and disease identification and analysis, referrals to consultants, on-site visits under certain conditions, and help with evaluating and choosing land management options.

Management Service is available to landowners interested in the long term management of their forest land. Those who receive management services agree to develop and carry out a management program for the immediate and long term stewardship of their property. Management plan implementation activities include guidance in soil and watershed protection, erosion control, wildlife habitat improvement, and forest road location and construction. A visit to the landowner's property is part of MDC's assistance in management plan development (Missouri DOC, 2000).

The Society of American Foresters' Certified Forester Program

The Society of American Foresters (SAF), a nonprofit, scientific, and educational organization, established the Certified Forester (CF) program in 1994. The term *Certified Forester* is registered with the U.S. Patent and Trademark Office and may only be used by individuals who meet SAF's certification requirements. The CF program is voluntary, nongovernmental, and open to qualified SAF members and nonmembers. A Certified Forester agrees to abide by current CF program requirements and procedures for certification and recertification; to maintain continuing professional development; and to conduct all forestry practices in a responsible, professional manner consistent with state and federal regulations governing environmental quality and forest BMPs.

Through the CF program and other activities, SAF advocates wise stewardship in forest resources management. The CF program provides a consistent, national credential. Certification constitutes recognition by SAF that, to the best of SAF's knowledge, a Certified Forester meets and adheres to certain minimum standards of academic preparation, professional experience, continuing education, and professionalism. No individual is eligible to receive or to maintain Certified Forester status or recertification unless the individual meets and continues to adhere to all requirements for eligibility. Some of the requirements that must be met by all CF applicants can be found in Appendix C.

Effectiveness of Education and Technical Assistance

Researchers with the U.S. Forest Service reviewed state BMP implementation and monitoring programs and the results from those programs in 1994. At the time, 21 states were assessing BMP effectiveness. The U.S. Forest Service found that the states had generally concluded that carefully developed and applied BMPs can prevent serious deterioration of water quality and that the availability of well-qualified personnel at the field level is probably the most cost-effective approach to meeting water quality standards. Most water quality problems, they found, were associated with poor BMP implementation, and trained field personnel could help correct problems with implementation (Greene and Siegel, 1994).

The researchers also concluded that an iterative self-education process at the state level was important for BMP improvement. Water quality monitoring is essential to understanding the relationship between land disturbance and water quality, they found, and it leads to improved understanding of the interaction of soils and topography with BMP implementation. This understanding was considered essential to continually reassessing BMP guidelines to make them more cost-effective. BMPs need to be specified, used, monitored, and fine tuned to provide cost-effective water quality protection.

Ellefson and others (1995) reviewed forest practice programs in many states, and one aspect of their review involved asking program managers what they thought were the most effective means to protect water quality. State program managers rated the following in program effectiveness, from most effective to least effective: technical assistance, fiscal incentives, educational programs, voluntary programs, regulatory programs, and tax incentives. For promoting reforestation and improving timber harvesting methods,

technical assistance and fiscal incentives were rated as the most effective means and regulatory programs and voluntary guidelines were rated as the two least effective.

When the Vermont Agency of Natural Resources (ANR) studied BMP implementation and effectiveness, ANR personnel accompanied harvesters in the field during harvests. During the harvests monitored, logging personnel appeared to become much more aware of the water quality issues related to their activities and the intent of the BMPs. By the end of the project, the loggers were extremely conscientious in their efforts to protect water quality. Vermont ANR personnel felt that without the oversight of the forestry agency, it was likely that water quality problems would have been more severe, particularly in the early phase of the project. After the assistance provided by the personnel, managers for the logging companies were fully capable of implementing appropriate BMPs with little or no oversight.