

Carl E. Garrison, III  
State Forester



# COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORESTRY  
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December 9, 2009

Honorable Charles J. Colgan, Chairman  
Senate Finance Committee  
10<sup>th</sup> Floor General Assembly Building  
Capitol Square  
Richmond, VA 23219

Honorable Lacey E. Putney, Chairman  
House Appropriations Committee  
General Assembly Building, Room 947  
Capitol Square  
Richmond, VA 23219

Dear Chairman Colgan and Chairman Putney:

As requested in the 2002 Appropriations Act, it is my pleasure to submit to you this report on the Silvicultural Water Quality Program.

The report addresses some historical milestones of the program and our latest data on accomplishments.

Should you have questions or need additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Carl E. Garrison III".

Carl E. Garrison, III  
State Forester

c: Honorable Robert S. Bloxom  
Secretary of Agriculture and Forestry



# DEPARTMENT OF FORESTRY IMPLEMENTATION OF THE 1993 SILVICULTURAL WATER QUALITY ACT FOR FY 2009

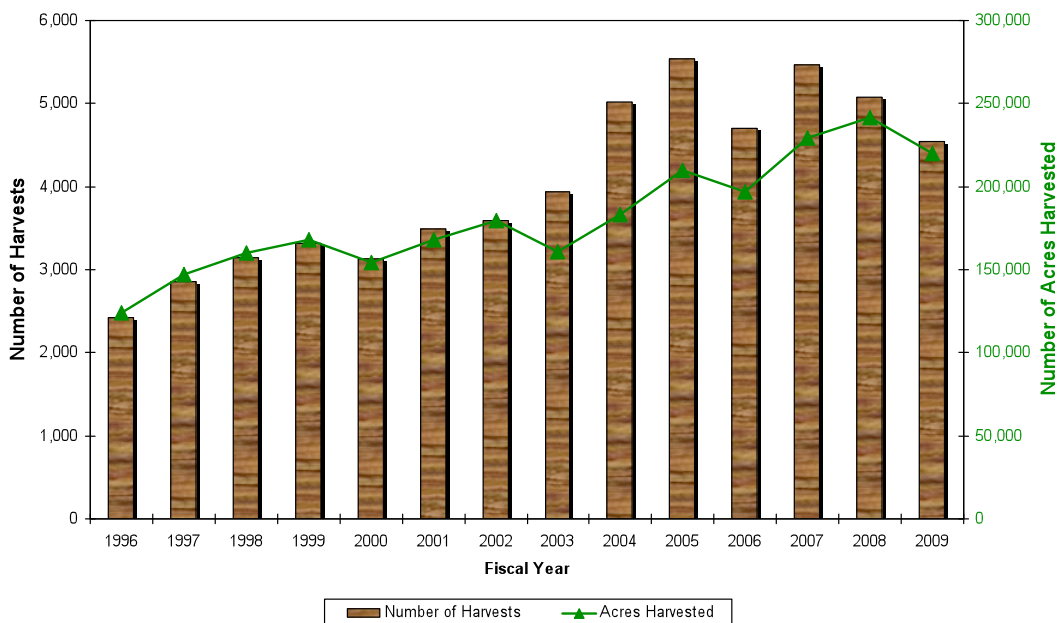
Submitted December 2009

## PROTECTING VIRGINIA'S WATER QUALITY

Water quality is important to all Virginians. Studies have shown that the cleanest water comes from forested watersheds. These watersheds are critical sources of pure drinking water; habitat for important fisheries, and areas that are treasured for their recreational value and purity of life. Two of the Department's important measures involve water quality. One focuses on Best Management Practices on forest harvesting operations and protecting streams from sediment. The other focuses on improving and protecting watersheds through management and land conservation.

The Virginia Department of Forestry has been involved with the protection of our forested watersheds since the early 1970s with the development of our first set of Forestry Best Management Practices (BMPs) for Water Quality. The Department is now utilizing the fourth edition of those guidelines, and has circulated copies of its latest version nationwide as well as to numerous countries worldwide. The backbone for the Department's water quality effort is the harvest inspection program, which began in the mid-'80s. This program has provided for one-on-one contact between VDOF and the harvest operators and a welcomed opportunity to educate the operators on BMPs and the latest in water quality protection techniques. In fiscal year 2009, VDOF field personnel inspected 4,245 timber harvest sites across Virginia on 207,226 acres.

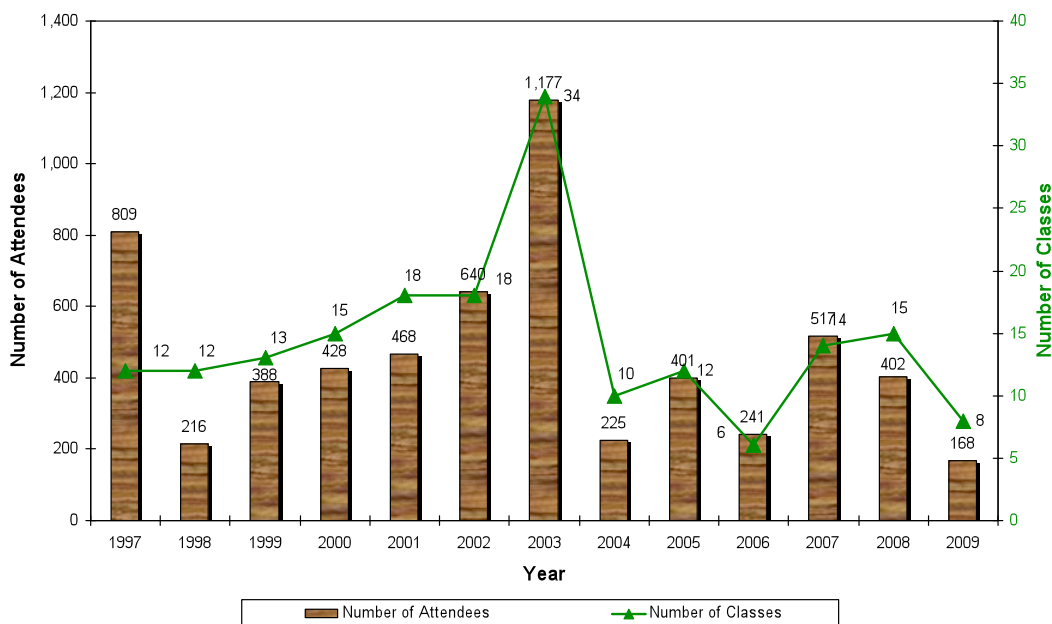
**Timber Harvests in Virginia  
(1996-2009)**



Another main focus of the VDOF water quality program is logger education. Since the development of the first BMP Manual for Virginia, the VDOF has been involved in the training of harvesting contractors in water quality protection techniques ranging from harvest planning, map reading and the use of GPS units to BMP implementation. This occurred through training that the agency sponsored and, more recently, through VDOF participation in the SFI® SHARP (Sustainable Harvesting and Resource Professional) Logger Training Program. Since 1996, this program has enabled VDOF to assist in training 6,370 harvesting professionals in 193 different programs relating to water quality protection. For fiscal year 2009, there were eight training programs offered with 168 attendees present. Three of these courses were in the core area with 76 attendees, and the remaining five courses were for logger continuing education and had 92 attendees.

## Logger Education

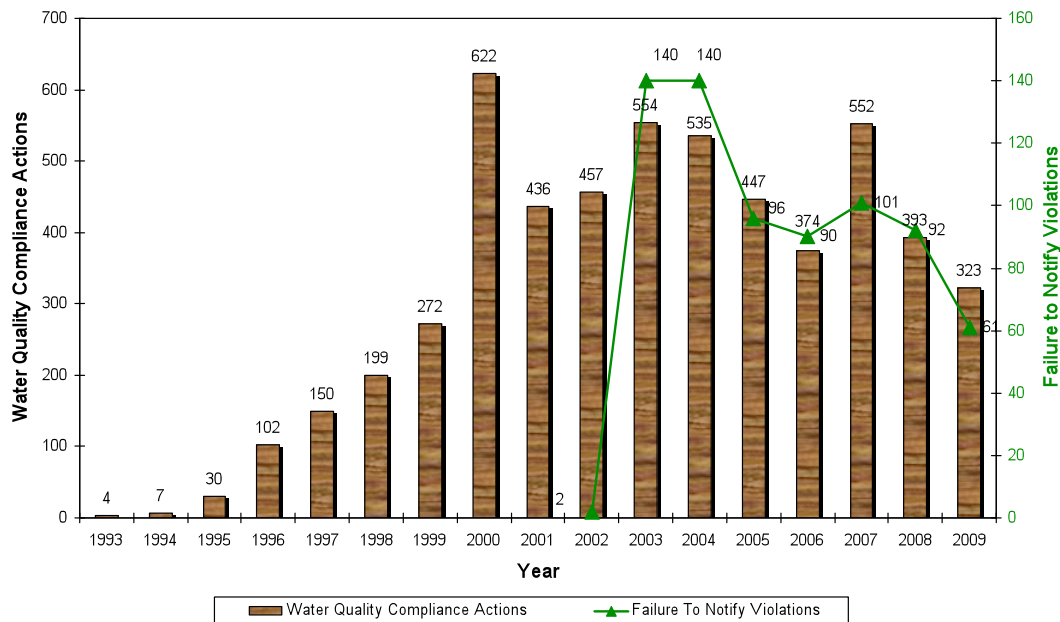
(1997-2009)



In July 1993, the General Assembly of Virginia – with the support of the forest industry – enacted the Virginia Silvicultural Water Quality Law, §10-1-1181.1 through §10.1-1181.7. The law was created to provide Virginia with an enforcement mechanism to address water pollution originating from silvicultural activities. The law grants the authority to the State Forester to assess civil penalties to those owners and operators who fail to protect water quality on their operations. This law was amended by the General Assembly in 2009 to require inspection of timber harvest sites and to require timber operators to provide landowner contact information as part of the notification process. Virginia continues to be the only state in the southeastern United States that grants enforcement authority under such a law to the state’s forestry agency. In fiscal year 2009, the VDOF was involved with 323 water quality actions initiated under the Silvicultural Law. Of these actions, 17 resulted in Special Orders being issued for violations of the law. Several of these proceeded to the issuance of civil penalties. All penalties collected under this law are placed in the Water Quality Penalty Fund, which is a non-reverting fund to be used for education, demonstration and research.

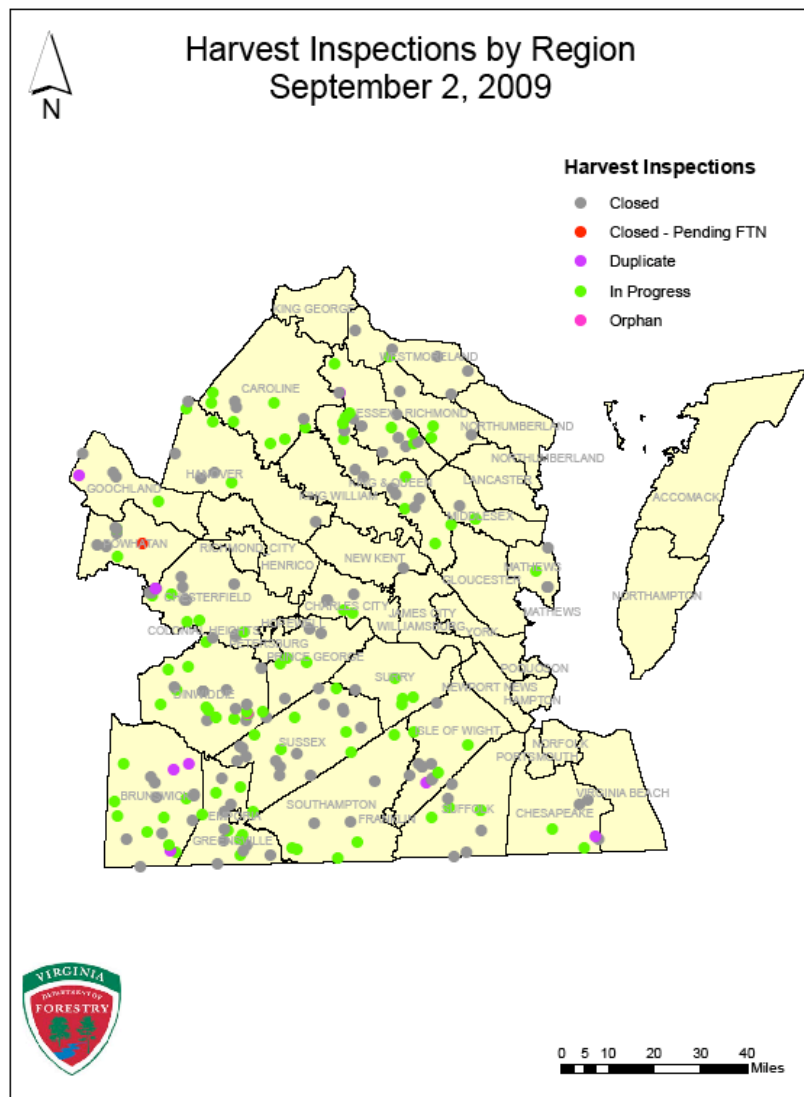
## Compliance Actions and Violations

(1993-2009)



A statewide audit system has been in place since 1993 to track trends in BMP implementation and effectiveness. This system was revised during fiscal year 2008 and brought Virginia into compliance with the Southern Group of State Foresters’ BMP Monitoring Protocol. This new audit process has added more tracts and will be able to provide more specific information on areas to concentrate additional training for harvest operators. Results from the first complete year of data show that overall BMP implementation on 300 randomly selected tracts is 82.4 percent and that BMPs associated with stream crossings on those same tracts is 81.4 percent. The significance is that stream crossings are the place where significant water quality impacts can occur, and BMPs will mitigate any possible water quality impacts. The audit results also show that 97.9 percent of the sites visited had no active sedimentation present after the close-out of the operation.

Beginning July 1, 2009, the VDOF began use of its enterprise database system IFRIS (Integrated Forest Resource Information System) for Water Quality. This involved a redesign of the entire Water Quality Program over the past year to incorporate the use of hand-held data recorders and a GIS-based system for recording timber harvest inspection information. The information that is collected from this point forward will be linked geographically by GPS coordinate to a specific watershed. In conjunction with this, timber harvest operators have all been assigned a unique Logger Identification Number that will make it easier for the logger to be able to notify their timber harvesting operations as well as enable the agency to be more efficient in communicating with loggers on important issues. A unique component of this system allows the timber operators to have access to maps and aerial photographs for harvest-planning purposes if they notify the agency of their operation using GPS coordinates. Additionally, the VDOF has teamed up with the SHARP Logger Program to offer GPS training to harvest operators and actually provide cost-share assistance towards the purchase of a recreational-grade GPS unit to those logging companies that have participated in the training class.



*Example of the type of information that will be available from the DOF IFRIS System*

During fiscal year 2006, the VDOF developed and implemented a BMP Logger Cost-Share Program. Funding for this unique initiative was made available through a grant from the Commonwealth's Water Quality Improvement Fund. This program provides a 50 percent cost-share to timber harvesting contractors who implement appropriate BMPs on eligible stream crossings. The projects must be pre-approved by the VDOF, and harvesting contractors must be SHARP Logger certified to be able to participate in the program. The program will cover items, such as culvert pipes, equipment time to construct water diversion structures as well as material to revegetate the site. But probably the one feature of the program that will have a lasting effect on water quality in the Commonwealth is that the program will provide cost-share for the purchase of portable timber bridges that will continue to provide water quality protection for sites beyond the original site for which they were purchased. In fiscal year 2009, this program funded 46 BMP projects throughout the Commonwealth with 70 percent of those being in the Chesapeake Bay Watershed. Of those projects, 32 involved the purchase of portable bridges.