

Bettina K. Ring
State Forester



COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORESTRY

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November 2, 2016

The Honorable Thomas K. Norment, Jr.
Co-Chairman, Senate Finance Committee
P.O. Box 6205
Williamsburg, VA 23188
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The Honorable Emmet W. Hanger, Jr.
Co-Chairman, Senate Finance Committee
P.O. Box 2
Mount Solon, VA 22843
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The Honorable S. Chris Jones
Chairman, House Appropriations Committee
P.O. Box 5059
Suffolk, VA 23435
DelCJones@house.virginia.gov

Dear Chairmen:

In accordance with Item 101(E) in Chapter 780 of the 2016 Virginia Acts of Assembly, the Department of Forestry submits the following report to the Chairmen of the House Appropriations and Senate Finance Committees on the progress of implementing the silvicultural water quality laws in Virginia.

Sincerely,

A handwritten signature in black ink, appearing to read "Bettina K. Ring".

Bettina K. Ring
State Forester

cc: The Honorable Basil I. Gooden, Secretary of Agriculture and Forestry

Annual Report on the Progress of Implementing the Silvicultural Water Quality Laws in Virginia

PUBLICATION YEAR 2016

Document Title

Annual Report on the Progress of Implementing the Silvicultural Water Quality Laws in Virginia

Author

Department of Forestry

Mandate

Item 101(E) of Chapter 780 of the 2016 Acts of Assembly

EXECUTIVE SUMMARY

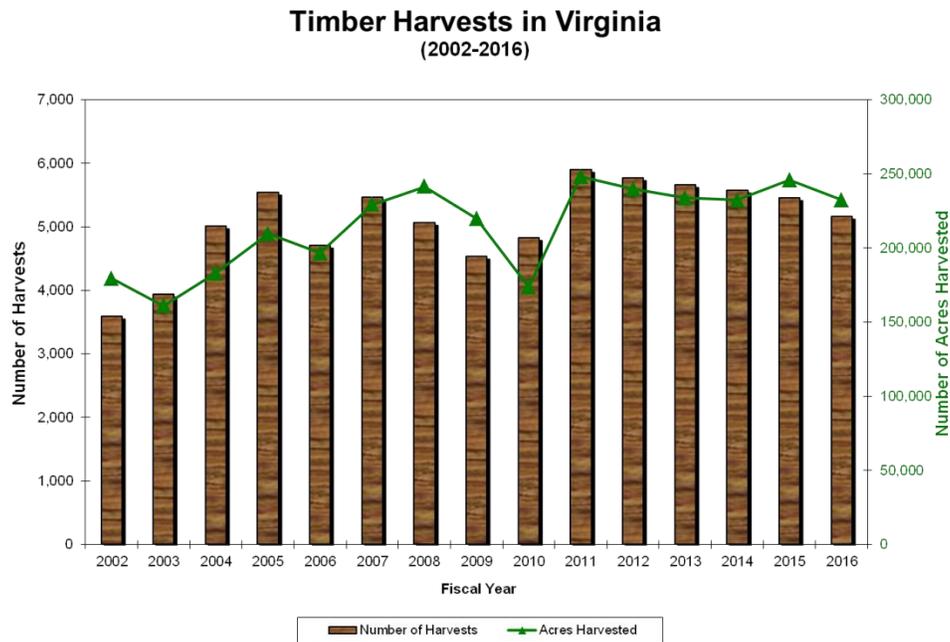
This report describes the activities of the Virginia Department of Forestry related to the implementation of the 1993 Silvicultural Water Quality Law, §§ 10-1-1181.1 through §10.1-1181.7 of the Code of Virginia. Two key functions of the Department involve water quality. One focuses on Best Management Practices on forest harvesting operations and protecting streams from sediment. The other focuses on improving and protecting watersheds through management and land conservation. The report includes relevant statistics.

1. Water Quality Protection

Water quality is important to all Virginians, and studies have shown that the cleanest water comes from forested watersheds. These watersheds are critical sources of pure drinking water, provide habitat for important fisheries, and are treasured for their recreational value and quality of life.

Two key performance measures for the Virginia Department of Forestry (VDOF) involve water quality. One focuses on Best Management Practices on forest harvesting operations and protecting streams from sediment, while the other focuses on improving and protecting watersheds through management and land conservation. These initiatives have a direct, positive impact on the Total Maximum Daily Load (TMDL) and Watershed Improvement Plan (WIP) that were developed for the Chesapeake Bay.

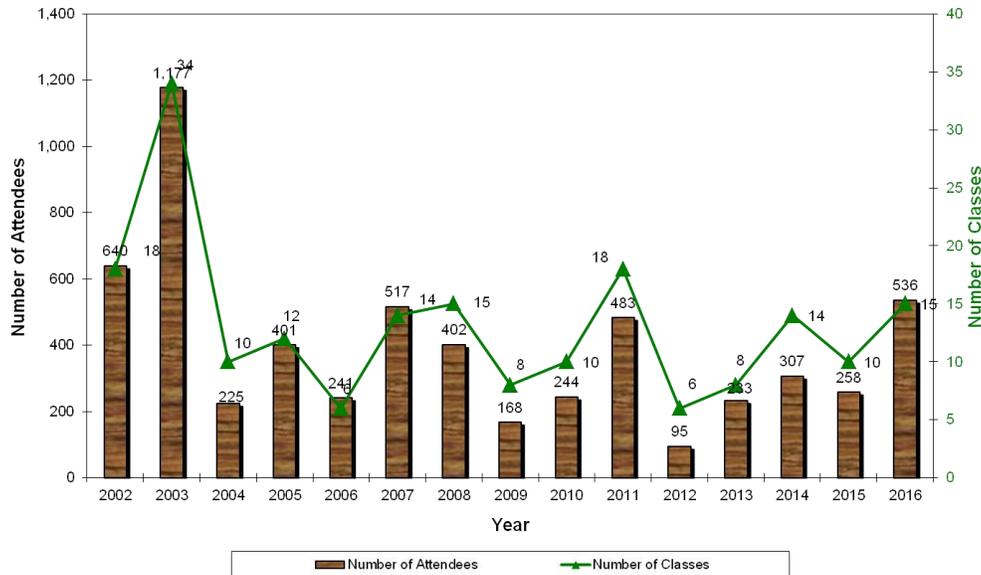
The Department has been involved in the protection of our forested watersheds since the early 1970s when our first set of Forestry Best Management Practices (BMPs) for Water Quality was developed. The current guidelines, now in their fifth edition, were published in 2011. The backbone of our water quality effort is the harvest inspection program which began in the mid-1980s. This program involves one-on-one contact between VDOF and the harvest operators, and provides a unique opportunity to educate the operators on BMPs and the latest developments in water quality protection techniques. During the reporting period, VDOF field staff inspected 5,163 timber harvest sites across Virginia totaling 232,305 acres – a slight decrease over the previous fiscal year.



Another key component of our water quality program is logger education. Since the development of the first BMP Manual for Virginia, VDOF has been involved in the training of harvesting contractors in water quality protection techniques including harvest planning, map reading, use of GPS units, and BMP implementation. The training has been sponsored directly by the department and also through our

participation in SHARP (Sustainable Harvesting and Resource Professional), a logger training program sponsored by the Sustainable Forest Initiative. Since 1997, VDOF has assisted in training 8,236 harvesting professionals at 268 water quality protection programs. During this reporting period, 15 training programs were offered, seven of which in the core area and involved 235 attendees, and eight courses were for logger continuing education and involved 301 attendees, for a total of 536 participants.

Logger Education (2002-2016)



In July 1993, the General Assembly – 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 authorizes the State Forester to assess civil penalties for failure to protect water quality during forestry operations. Virginia is the only state in the southeastern United States that grants enforcement authority under comparable laws to the state’s forestry agency. During the reporting period, VDOF initiated 272 water quality actions under this law, a 28 percent increase over the previous year. Of these actions, eight resulted in the issuance of special orders, and three involved the issuance of stop work orders, one of which resulted in the assessment of a civil penalty.

An audit system has been in place since 1993 to track trends in BMP implementation and effectiveness across the state. Results from 240 randomly selected tracts harvested during calendar year 2015 show BMP median implementation rate of 96 percent. Audit results also showed that 99.2 percent of the harvest sites visited had no active sedimentation present after the close-out of the operation. This information is reported as part of the Watershed Implementation Plan (WIP). Since the information is captured through GIS technology, it can be compiled spatially to report on forestry operations that occur within the boundaries of the Bay watershed where the BMP implementation rate harvest median score was 96.8 percent. This BMP Implementation Monitoring function is automated and fully integrated with IFRIS (Integrated Forest Resource System), the agency’s enterprise information system.

VDOF also offers assistance to timber harvest operators through a unique cost-sharing program offered through the Commonwealth's Water Quality Improvement Fund. This program helps with the cost of the installation of forestry BMPs on timber harvest sites by harvest contractors. During the reporting period, 30 stream protection projects were funded. These projects involved the use of portable bridges that will protect stream crossings during the harvest and in subsequent years.

2. Watershed Protection

Because forests provide the best protection for watersheds, one of the Department's goals is to increase the amount of forestland that is conserved, protected and established in Virginia's watersheds. The focus is on practices with the highest beneficial impact on water quality, such as permanent land conservation, establishment of riparian buffer zones, planting trees on non-forested open land, and increasing urban forest canopy. These activities closely support water quality goals associated with restoration of the Chesapeake Bay and of watersheds for Virginia's southern rivers.

Virginia's forestry BMPs related to harvesting have been highly successful. One of the most valuable BMPs for water quality is the uncut or partially cut streamside management zone. This voluntary measure involves retaining an unbroken forest groundcover near the stream that provides shade for water and wildlife corridors. Landowners can elect to receive a state tax credit for a portion of the value of the uncut trees in the buffer. By doing so, they agree to leave the buffer undisturbed for 15 years. The number of landowners electing this option for tax year 2015 was 64, a slight increase in number of applications over the previous year. The aggregate tax credit was \$398,250 on timber valued at \$1,735,021 that was left uncut. These figures represent an increase in both the tax credit issued and the value of the buffer.

Forests provide superior watershed benefits when compared to nearly every other land use. Because of this, VDOF encourages planting of open land with trees, establishing new riparian forested buffers where none previously existed, and providing protection of existing riparian forests through a tax credit. VDOF is leading a project with the Virginia Department of Environmental Quality, the Chesapeake Bay Commission, the Rappahannock River Basin Commission, the George Washington Regional Commission, The Nature Conservancy and the Water Resource Research Center at Virginia Tech to demonstrate the value of retaining forestland in the Chesapeake Bay watershed. The goal is to determine if forest retention actions by localities, private landowners and others will decrease actual loads compared to 2025 Chesapeake Bay TMDL projected loads. If so, the project will seek to determine approaches to credit forestland retention through the Chesapeake Bay TMDL Model.