



Silvicultural Operations

Guidance on the Chesapeake Bay Preservation Area Designation and Management Regulations

September 16, 2002

Purpose:

This document provides guidance to local governments on the requirements of the Chesapeake Bay Preservation Act (Act) and the Chesapeake Bay Preservation Area Designation and Management Regulations (Regulations) with respect to silvicultural activities within Chesapeake Bay Preservation Areas (CBPAs). Although silvicultural activities are exempt from the Regulations, this exemption only applies to those operations that install and properly implement all necessary forestry Best Management Practices (BMPs) according to *Virginia's Forestry Best Management Practices for Water Quality* as published by the Virginia Department of Forestry (DOF). If installed and maintained according to this manual, these BMPs should adequately protect water resources that could potentially be impacted by land-disturbing activities that occur during a typical timber harvest. It is important to note that failure to properly install or maintain any of the forestry BMPs within a CBPA would automatically eliminate the silvicultural exemption status under the Regulations and may subject the property owner to penalties under the local Bay Act program and possible enforcement actions from the DOF. This guidance is intended to assist localities in determining if a proposed tree clearing activity is genuinely a silvicultural operation, if the proposed activity qualifies for an exemption, and how to handle a violation of the Regulations that is related to a silvicultural activity.

Regulations:

The following section lists the citations in the Regulations that refer to silvicultural activities:

- Section 9VAC 10-20-40 of the Regulations defines silvicultural activities as “forest management activities, including but not limited to the harvesting of timber, the construction of roads and trails for forest management purposes, and the preparation of property for reforestation that are conducted in accordance with the silvicultural best management practices developed and enforced by the State Forester pursuant to § 10.1-1105 of the Code of Virginia and are located on property defined as real estate devoted to forest use under § 58.1-3230 of the Code of Virginia.”
- Section 9VAC 10-20-120.10 of the Regulations indicates that silvicultural activities are exempt from local Bay Act program requirements only if those operations are conducted using the appropriate Best Management Practices (BMPs) to protect water quality as prescribed by Virginia's Forestry Best Management Practices for Water Quality.
- Section 9VAC 10-20-130 (3)(b) of the Regulations requires that the full 100-foot buffer be established in woody vegetation when the silvicultural activity ceases within the buffer area on the property and a new land use is proposed.

Discussion:

Virginia's forests are a natural resource that, when properly managed, can provide a renewable supply of forest products without compromising the water quality of the Bay and its tributaries. Streamside forest

buffers, and forested areas in general, provide nutrient uptake and soil stabilization, which can benefit water quality by reducing the amount of nutrients and sediments that enter local streams and eventually the Chesapeake Bay. Unfortunately, conventional harvesting practices have the potential to damage riparian forested buffers and cause serious water quality impacts. In order to protect water quality and promote the efficient use of Virginia's valuable forest resources, the Department of Forestry developed a Best Management Practices (BMP) guide for forestry operations entitled *Virginia's Forestry Best Management Practices for Water Quality*. If properly installed and implemented, these BMPs provide a low-cost method of protecting water quality during a silvicultural operation. Although the Department of Forestry's BMP program is intended to be voluntary, it becomes mandatory for any silvicultural operation occurring within a Chesapeake Bay Preservation Area. Silvicultural activities that abide by the forestry BMP guidance are exempt from the Regulations, in part, due to the fact that they do not represent a permanent change of the landscape, as compared to traditional commercial, industrial, or residential development. These traditional development activities have resulted in the clearing of forests and farmlands and replacing them with large areas of impervious surfaces such as roads and buildings, which greatly reduces the capability of the land to provide for removal of pollutants, sediments, and nutrients from stormwater flow. However, land that is engaged in properly managed silvicultural operations is capable of providing long term economic benefits while retaining important wildlife habitat and water quality functions. The exemption provided to silvicultural activities is an acknowledgement of the importance of conserving these forested resource lands and encouraging their continued management.

Throughout the existence of the Bay Act and Regulations, there have been several ongoing concerns regarding silvicultural operations and other tree-clearing activities within Chesapeake Bay Preservation Areas (CBPAs). One of the most frequently occurring Regulatory issues has been the misuse of the silvicultural activity exemption to remove vegetation from a parcel in preparation for the development of the property. The changes to the Regulations that became effective on March 1, 2002 address forestry-related issues by providing a definition of silvicultural activities. This further clarifies CBLAD's position on what types of forestry operations qualify for an exemption from the Regulations. This guidance paper provides a discussion of the responsibility of local governments in the Tidewater region to ensure that forestry operations in their localities are conducted in a manner that is consistent with the Regulations.

Conclusions:

Local Government Authority

According to §10.1-1126.1 of the Code of Virginia, entitled "Silvicultural practices; local government authority limited", local zoning administrators have the authority to review proposed silvicultural activities to determine if they comply with applicable local zoning requirements. The first paragraph of Section 9 VAC 10-20-120 of the Regulations states that local governments must require that any use, development, or redevelopment of land in Chesapeake Bay Preservation Areas meets the 11 performance criteria contained within that section. One of the performance criteria states that silvicultural activities are exempt from the Regulations only if they adhere to the Best Management Practices as prescribed in the Department of Forestry's BMP manual. Although §10.1-1126.1 of the Code restricts local governments from requiring a permit or imposing a fee for review of proposed silvicultural activities, the local governing body must make a determination about whether the activity qualifies for an exemption. Local governments may require the submittal and review of a pre-harvest plan or other necessary documentation prior to approving the exemption. Once the locality determines that the activity is worthy of an exemption they may allow the silvicultural activity to commence.

Silviculture inherently entails the continued production of trees, wood, or wood products and any related

actions that occur during the management of the land for these purposes. Silviculture does not include clearing a site in preparation for future development nor does it involve the removal of stumps for any reason. If at any time a locality determines that the intended use of the site is not silvicultural in nature, all exemptions from the Regulations are lost. Therefore, the project would have to comply with all the requirements of the Regulations, which may include preserving the full 100-foot buffer or replanting it in woody vegetation, if necessary. Full compliance with all Erosion and Sediment Control regulations would also be required if the (non-silvicultural) project disturbed more than 2500 square feet of land within a CBPA. The Chesapeake Bay Local Assistance Department (CBLAD) encourages local government coordination with DOF in ensuring that the project is actually a silvicultural operation and that all forestry BMPs are installed and functioning properly.

In addition to providing a definition of silvicultural activities, §9VAC10-20-40 of the Regulations stipulates that silvicultural activities must be located on property defined as real estate devoted to forest use under §58.1-3230 of the Code of Virginia. This code section references § 58.1-3233 of the Code of Virginia, which establishes a 20-acre minimum for real estate devoted to forest use. Therefore, if the activity is proposed or conducted on sites that do not meet the twenty-acre minimum, the landowner must comply with the full Bay Act requirements or apply for a formal exception from the locality.

Resource Protection Areas and Streamside Management Zones (SMZ)

Because riparian buffers are considered “the last line of defense” in the protection of water quality, they are the cornerstone of the Bay Act and an important component of the Virginia Department of Forestry’s BMP program. Section 9VAC 10-20-80 of the Regulations states that “Resource Protection Areas shall include a buffer area not less than 100 feet in width located...along both sides of any water body with perennial flow.” Therefore, all water bodies with perennial flow located in “Tidewater Virginia” are protected with a 100-foot RPA buffer that can be partially harvested per the provisions of the forestry BMP manual. The Department of Forestry’s BMP manual requires the establishment of Streamside Management Zones (SMZ) along perennial and intermittent streams and permits only limited tree removal within these areas. Other BMPs are also required within these areas to reduce impacts to water quality during the harvesting operation. During pre-harvest planning, foresters and loggers should identify all the streams on the site through the use of maps and field verification, keeping in mind that some streams do not appear on USGS topographic maps. The Forestry BMP manual should be consulted for the proper application and use of Streamside Management Zones.

Changes In Land Use

According to §9VAC 10-20-130(3)(b) of the Regulations, the full 100-foot buffer must be established in woody vegetation when the silvicultural activity ceases within the buffer area and a new land use is proposed on the property. Therefore, before the locality can approve a new land use or a development plan (including subdivision) for the property, the applicant must provide a planting plan that will ensure that the full 100-foot buffer is fully established in woody vegetation. The plan should also provide for proper monitoring and maintenance to ensure survivability of vegetation and viability of the newly established forest buffer. A comprehensive planting plan for the entire buffer area should be submitted and approved before a Plan of Development is approved for the property. This will ensure that a standard buffer is planted adjacent to all impacted RPA features and along all water bodies with perennial flow on the site. If, prior to Plan of Development approval, the locality determines that the 100-foot buffer is adequately vegetated and meets the pollutant removal criteria listed under §9VAC 10-20-130 (3) and §9VAC 10-20-130(3)(a) of the Regulations, replanting additional vegetation may not be necessary. In these cases, the full 100-foot

buffer should be allowed to naturally regenerate and no land disturbing activities should be permitted within this area.

As the need for buffer establishment arises, localities should consult CBLAD and the Virginia Department of Forestry to determine the best method for planting the 100-foot buffer in such a way that it meets the pollutant removal criteria listed under §9VAC 10-20-130 (3) and §9VAC 10-20-130(3)(a) of the Regulations.

Responsible Party

Although a forester or a logger may be harvesting the trees and installing the Best Management Practices, the property owner is legally responsible for ensuring that all silvicultural practices are carried out in accordance with the Regulations and all other regulatory requirements.

Enforcement Procedures

- Pursuant to a Memorandum of Understanding (MOU) between the Department of Forestry (DOF) and the Chesapeake Bay Local Assistance Department (CBLAD), the DOF will conduct harvest inspections on all known silvicultural activities within Chesapeake Bay Preservation Areas (CBPAs) to determine impacts on water quality.
- The DOF will notify the local government and CBLAD when it is determined that the Streamside Management Zone (SMZ) has not been maintained during the silvicultural activity, as recommended in the DOF Best Management Practices handbook. The SMZ BMP standard requires, at a minimum, a 50-foot wide SMZ measured from the top of the bank along both sides of all perennial and intermittent streams. This 50-foot wide SMZ is open to selective harvest per the specifications of DOF's *Virginia's Forestry Best Management Practices for Water Quality*. Even if DOF determines that an SMZ violation may not pose an immediate threat to water quality, the SMZ violation is still considered a violation of the Chesapeake Bay Preservation Act and requires an enforcement action by the local government.
- During silvicultural operations, the local government is responsible for the protection of both the Resource Protection Area (RPA) and the Resource Management Area (RMA). Because the majority of water quality impacts from silvicultural activities occur as a result of SMZ violations, much of this guidance focuses on the prevention and remediation of these types of violations. However, it is equally important, and required by the Regulations, that BMPs are correctly installed and maintained within RMAs as well. While the aforementioned MOU does not require DOF to notify localities of all BMP violations, it is recommended that all localities coordinate with their county forester to ensure that all silvicultural BMP procedures, as appropriate for each site, are followed within locally designated Chesapeake Bay Preservation Areas.
- Failure to properly install or maintain any of the forestry BMPs within a CBPA would automatically eliminate the silvicultural exemption status under the Regulations. For example, clear-cutting or partially clear-cutting within a SMZ would constitute an illegal clearing of vegetation in the RPA and would be subject to local CBPA enforcement procedures. Landowners are legally and financially responsible for all such violations and any penalty or corrective measures required by the enforcement action.

- Once informed of a silvicultural activity within a CBPA that has not complied with the forestry BMP guidelines, a locality should:
 1. Issue a “stop work order” on the activity.
 2. Require the immediate stabilization of the disturbed area to ensure that there are no additional impacts to the RPA, RMA, or water quality.
 3. Take appropriate corrective actions to ensure compliance with CBPA regulations, such as:
 - a. Enforcement of civil penalties, in conjunction with any necessary replanting requirements;
 - b. Restoration of the SMZ to pre-harvest condition;
 - c. Revegetation of the full 100-foot RPA buffer on the entire site;
 - d. Other suitable enforcement actions that: (1) guarantee the function of the RPA buffer is restored; and (2) discourage future violations.

- Whichever corrective actions are taken, a locality must ensure that the water quality protection function of the RPA buffer is restored as quickly as possible. Based on the severity of the violation, this may involve merely stabilization of the disturbed area or, alternatively, extensive plantings and a long-term vegetation maintenance plan.

- Localities should establish a time period within which the landowner must bring the silvicultural activity into compliance with the local CBPA program. If the landowner does not meet this time frame, the locality should pursue legal action against the landowner.

Stabilization and Revegetation Plan Framework

A site stabilization and revegetation plan should be required in the event that a silvicultural operation has violated the local CBPA program. The stabilization and revegetation procedure should be detailed in a plan developed by the landowner. The purpose of the plan is to adequately address how the stabilization and revegetation procedure will take place. The site stabilization and revegetation procedure should use proven techniques from the Department of Forestry’s *Virginia’s Forestry Best Management Practices for Water Quality*, the Virginia Erosion and Sediment Control Handbook, and other sources of information deemed to be consistent by the locality and CBLAD. Specifically, a well-written plan would include the following:

- I. *General Information:*
 - a. Landowner name, address, and phone number
 - b. Logger name, address, and phone number
 - c. Site address and location map
 - d. Date of disturbance

- II. *Site Information:*
 - a. Name of stream or water body impacted
 - b. Soil type/erosion potential
 - c. Number, species, and approximate size of vegetation disturbed.
 - d. Types of disturbance, e.g., rutting, skidding, etc., and acreage or lineal feet of each type
 - e. Site plan indicating the areas of disturbance within CBPAs
 - f. Calculation of disturbed Area within the CBPA

- III. *Remedial Action Plan:*

This section of the plan should encompass all necessary stabilization and revegetation actions for any disturbed areas within the 100-foot buffer area. A first priority would be to minimize

any additional soil disturbance in the completion of this work to avoid sedimentation of the watercourse. Specifically, the plan should address the following:

- a. **Removal of logging debris from the watercourse** in compliance with §62.1-194.1 and §62.1-194.2 of the Code of Virginia.
- b. **Stabilization of all ruts, skid trails, haul roads, and bare soil areas within the buffer area** using water control structures, seeding, and other BMPs with appropriate fertilization, liming, seeding, and mulching practices. If appropriate, silt fencing, mulching, and excelsior blankets should be used to stabilize critically eroding areas. If the ground layer in the buffer area has been disturbed, the bare soil should be temporarily stabilized as fast as possible. It is critical that some type of fast growing ground cover (typically grasses) be established quickly to help slow sediment and nutrient movement into adjacent water bodies.
- c. **Long-term revegetation of all layers of vegetative strata** (canopy, understory, shrub/groundcover). Use of locally grown native vegetation similar to the species removed or those indigenous to the area should be encouraged. Noxious or invasive species should not be planted. Trees should be planted at the rate and size specified by the local government, but should not be planted on less than a 1 to 1 replacement ratio. A planting site plan should be submitted which indicates the desired plants species, plant location and spacing, and proposed planting density.
- d. **A maintenance schedule and agreement** signed by the landowner to ensure the effectiveness of the stabilization and revegetation procedure. The agreement should include provisions for keeping people and equipment out of the buffer area and for long-term establishment and/or re-establishment of vegetation in the buffer area.

Achieving Compliance Following A Violation

- CBLAD recommends that local governments require that the stabilization and revegetation plan be submitted within 15 working days following local government notification to the landowner that a violation has occurred. CBLAD also recommends that local government representatives seek input from local DOF personnel during review of the plan. A meeting may be held with the local government representative, the landowner/operator, and the DOF to clarify the requirements of the plan.
- Localities should notify the landowner in writing as to whether or not the stabilization and revegetation plan has been approved or denied, including recommendations for correcting any deficiencies in the proposed plan. Implementation should occur immediately upon approval of the stabilization and revegetation plan by the local government.
- The landowner should notify the local government once the stabilization and revegetation plan has been implemented on the site. To ensure survival of the vegetation, the local government should perform initial and follow-up site inspections and notify the landowner if the implementation is considered successful or if further remediation (planting) is necessary.