

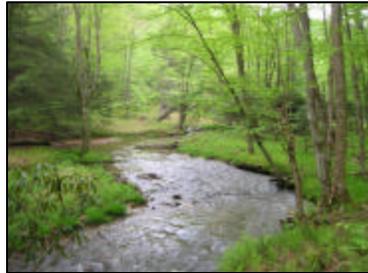
- Flow and circulation patterns and chemical and biological characteristics of surface waters are not impaired;
- The reach of such waters is not reduced; and
- Any adverse effect on the aquatic environment will otherwise be minimized.

Several normal agriculture and silviculture activities are defined in more detail below:

- **Cultivating** – physical methods of soil treatment employed within established agriculture and silviculture lands on farm or forest crops to aid and improve their growth, quality, or yield.
- **Harvesting** – physical measures employed directly upon farm, forest, or crops within established agricultural and silviculture lands to bring about their removal from farm or forest land, but does not include the construction of farm or forest roads.
- **Plowing** – all forms of primary tillage, including moldboard, chisel, or wide blade plowing, disking, harrowing, and similar physical means used on farm or forest land for the breaking up, cutting, turning over, or stirring of soil to prepare it for the planting of crops.
- **Seeding** – the sowing of seed and placement of seedlings to produce farm or forest crops and includes the placement of soil beds for seeds or seedlings on established farm and forest lands.

For More Information:

- Virginia DEQ Office of Wetlands and Water Protection: <http://www.deq.virginia.gov/wetlands>
- Virginia DCR Virginia Agricultural BMP Manual: http://www.dcr.virginia.gov/soil_and_water/costshar.shtml
- Virginia DOF Best Management Practices For Water Quality: <http://www.dof.virginia.gov/wq/index-BMP-Guide.shtml>



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Virginia Wetlands and Streams: Considerations for Agriculture and Silviculture Operations



The Importance of Virginia's Wetland and Stream Resources

Over 1 million acres of tidal and non-tidal wetlands are present in Virginia. Wetlands are among the most productive ecosystems in the world and are essential for protecting Virginia's water quality. The primary functions of wetlands include:



- Filtering nutrients, sediment, and pollutants from surface and ground water;
- Absorbing excess flood and rain water;
- Protecting shorelines from erosion; and
- Providing habitat to numerous plants and animals, nursery and hatchery areas for fish and shellfish, including species that are commercially harvested.

Likewise, streams are an essential part of the aquatic ecosystem that provide many important functions, including:

- Flood control, ground water recharge, and nutrient recycling;
- Biological diversity and productivity, including positively influencing downstream rivers and estuaries; and
- Habitat for plants, animals, and microbes, including shelter, food, protection, spawning and nursery areas, and travel corridors.

These essential qualities, as well as the importance of wetlands and streams to Virginia's economy, have resulted in the adoption of a "no net loss" policy in regards to these re-

sources. This means that the overall amount and quality of surface waters must be protected, and that impacts to these resources must be carefully managed. The Virginia Department of Environmental Quality administers the Virginia Water Protection (VWP) Permit Program, which regulates impacts to surface waters, including wetlands and streams, in order to protect their beneficial uses.

Regulated Activities

In general, the following activities in surface waters would require a VWP Permit and/or federal authorization:

- Dredging, filling, or discharging any pollutant into or adjacent to surface waters;
- Altering the physical, chemical, or biological properties of surface waters; and
- Any activities causing significant alteration or degradation to existing wetland acreage or functions.

With respect to streams, these types of activities would include:

- Installing culverts and bridges;
- Filling and/or relocating a stream channel;
- Placing rip-rap or other hardening on stream banks;
- Channelizing, impounding, and piping.



Considerations for Agriculture and Silviculture Operations

Certain agriculture and silviculture activities do not require a VWP Permit, but may require other permits under state and federal law or county statutes.

In order to qualify for any applicable exemptions from a VWP Permit, the associated activities must be part of an established (i.e. ongoing) agriculture or silviculture operation. Activities which bring a new area into agricultural or silvicultural use are not considered part of an established operation.

Furthermore, the VWP Permit Program recommends that agriculture and silviculture operations be conducted in accordance with applicable best management practices (BMPs) designed to reduce nonpoint source pollution. Examples of BMPs can be found in the Virginia Department of Conservation and Recreation (DCR) Virginia Agricultural BMP Manual (2011) and in the Virginia Department of Forestry (DOF) Best Management Practices for Water Quality in Virginia (Fourth Edition, July 2002).

Types of Exempt Activities

In most cases, normal agriculture activities in a wetland do not require a VWP Permit, provided that they are associated with an established operation. This includes any operation devoted to the bona fide production of crops, or animals, or fowl including the production of fruits and vegetables of all kinds; meat, dairy, and poultry products; nuts, tobacco, nursery, and floral products.

Normal silviculture activities in a wetland are exempt from VWP permitting as well, provided that they are also associated with an established operation. This includes any forest management activity, 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.

Construction and maintenance of farm and forest roads must be performed in accordance with applicable BMPs to ensure that: