



Failed silt fence along Lake Gaston Shoreline. Also notice the soil erosion tracks and muddy water along the shoreline.

Lake Gaston Water Quality - Erosion & Sediment Control

As property owners on Lake Gaston we are all well aware of the importance of the water quality in the lake and the creeks that feed into the lake. Water quality has a direct impact on uses of the lake including boating, swimming, and fishing as well as a potable water supply source and habitat for wildlife. Maintaining and improving the condition of the water in Lake Gaston is important socially (quality of life), ecologically (wildlife habitat) and economically (property values and tourism).

Non-point source pollution has a large impact on water quality across North Carolina and Lake Gaston. Non-point source pollution comes from locations and activities across the watershed and can include a variety of contaminants that reduce water quality in Lake Gaston. Stormwater runoff from rain events picks up the contaminants and carries them, in this case, into the lake. Examples include fuel and oil from roadways and parking lots and fertilizer from lawns and agriculture operations. Soil and sediment runoff that comes from areas of land disturbance is another example of non-point source pollution. Excess soil runoff and sediment in Lake Gaston results in silt buildup that can negatively impact fish and native aquatic vegetation. It can also make swimming, boating and other water recreation much less enjoyable. Nutrients and contaminants contained in the runoff can also help activate algae blooms that may pose a health risk to people and wildlife.

Land disturbing activities include the grading, movement and storage of soil during construction activities. The disturbed soil is then subject to further erosion and runoff, particularly during rainstorms, into the lake. Soil and sediment runoff from development activities is one of the greatest threats to water quality in Lake Gaston. With the recent explosion of home construction on Lake Gaston, the potential for soil erosion and sediment runoff has increased significantly. The good news is Virginia and North Carolina both have laws and regulations in place that, when followed, help reduce the likelihood of soil erosion and sediment runoff into Lake Gaston. The five counties on Lake Gaston have planning/building departments tasked with managing

development and construction to include compliance with erosion and sediment control requirements. Each county has an ordinance that is directly or indirectly related to erosion and sediment control. In most cases the counties work with the state to ensure the requirements are properly adhered to. In the case of Warren County, there is also a specific requirement for silt fencing for new construction sites. A silt fence is a best management practice (BMP) designed to stop disturbed soil from being carried into the lake during storm events. There are a variety of other BMPs that can also help minimize soil runoff from construction sites, including vegetation buffers, covering soil piles with tarps, and stabilizing disturbed soil with a straw/mulch covering.



Inadequate erosion and sediment control at construction site on Lake Gaston.

There are slightly differing requirements regarding the planning for, and implementation of erosion and sediment control depending on the state and county where the activity is occurring. However, the bottom line is, allowing soil and sediment runoff into “waters of the state” from regulated land disturbing activities is prohibited. Lake Gaston is a “water of the state” and as such, measures must be taken to prevent sediment laden runoff from construction sites entering the lake. The challenge is that local counties are sometimes hard pressed to ensure property owners and construction firms understand and comply with the regulations. It is incumbent on those property owners and construction firms that are conducting regulated land disturbing activities to understand and comply with the requirements.



Properly installed erosion and sediment control at construction site on Lake Gaston.

The Lake Gaston Environment Committee is working to assist the local jurisdictions in making sure everyone is doing their part to reduce erosion and sediment runoff and help ensure the

water quality of Lake Gaston. If you see instances of sediment runoff into the lake or adjoining creeks from construction activities, such as muddy/silty water along the shoreline or evidence of soil erosion leading into the lake, let your local county planning department know. Remember it's our lake for all to enjoy and protecting it is all our responsibility.

Points of contact for erosion and sediment control:

North Carolina: 1-866 STOP-MUD (866.786.7683)

Virginia: 804.527.5020

Warren County, NC: 252.257.7027

Halifax County, NC: 252.583.1082

North Hampton County, NC: 252.534.5171

Brunswick County, VA: 434.848.0882

Mecklenburg County, VA: 434.738.6191