

It's Not Just Dirt

A Guide for Preventing Erosion and Keeping Our Water Clean



Photo: Byron Hickox

Haywood County has some of the purest, most scenic waterways found anywhere.

Haywood County is a special place to live.

Our land and water are precious resources that contribute to the wonderful quality of life we enjoy.

We are responsible for their protection.

Our actions directly impact these resources, our economic future, and our quality of life.



Our Watershed

Because of its mountains, Haywood County is a unique watershed. All water flowing through Haywood County, and all our drinking water originate here. We are entirely responsible for the quality of our water and the water we send downstream to our neighbors.

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When the vegetation is removed from land and the soil is disturbed, soil erosion caused by wind and rain is sure to follow. The soil that is washed away or blown away does not just disappear. It usually ends up in nearby streams and lakes as sediment.

Plain old dirt is the greatest single pollutant affecting our streams, lakes and ponds in Haywood County. It pollutes by clouding waters and settling on the stream bottom.

- Suspended dirt particles block light and prevent the growth of aquatic plants, which also prevents oxygen production.
- Sediment can devastate fish, aquatic insects, and other wildlife. Sediment on the stream bottom smothers insect larvae, mussels and fish eggs, and destroys the spawning areas of fish and shellfish. In severe cases, it can even kill fish.
- Sediment fills lakes and ponds, including your favorite swimming and fishing holes!
- Sediment obstructs waterways and clogs storm sewers and ditches, which can cause flooding.
- Soil erosion washes away the most valuable portion of your land - your topsoil.

The cost to remove sediment is enormous. We all pay through increased water and utility rates, increased agriculture costs, costs to remove sediment, and state, federal and local taxes for programs to deal with the problem.



Dirt is the greatest pollutant affecting Haywood County's waterways.

Erosion & Sediment Top Ten List

1. Sedimentation is the greatest water pollution problem.
2. In western North Carolina, over 80% of streams classified as “impaired” are due to sediment.
3. Sedimentation destroys wildlife habitat, smothers eggs, kills fish, and destroys their food supply.
4. Sediment can contain and carry harmful chemicals and pollutants that are used on land.
5. Soil erosion removes the most valuable topsoil needed to grow plants and food.
6. It takes 500 years to develop one inch of topsoil; it can all be lost in one storm.
7. Sedimentation fills lakes, ponds and streams, increasing power and utility company operating costs, and your utility rates.
8. It is much cheaper to control erosion than clean up sediment.
9. Land disturbing activities, such as road and building construction, can accelerate erosion and cause severe stream sedimentation.
10. The NC Sedimentation Pollution Control Act requires anyone involved in land disturbing activities to take preventative measures to reduce soil erosion and prevent sedimentation.



The Lake Junaluska Assembly spends nearly \$70,000 every other year to remove sediment from their lake. This does not eliminate the problem, it only slows the filling rate of the lake. Each year the Assembly removes over 20 tons of debris from booms at the lake entrance (2008 data).

What’s In It For Me?

Time and money. By installing the right erosion control measures at the beginning of your project and maintaining them during the project, you will save money and a lot of aggravation. You can avoid the following problems if you do it right the first time:

- Delays due to a Stop Work Order issued by a regulatory agency
- Damage repair on waterways and adjacent properties
- Missed deadlines and change orders for additional work
- Lawsuits, civil penalties and administrative fines.

If you do it right, you will save money and enjoy the personal satisfaction of being a good land and water steward.

What Can I Do?

- Get technical advice before you begin construction; see agency contact info on the back page.
- Clear only the land area you must at any given time.
- Develop an effective erosion and sedimentation control plan; install controls that suit your site’s topography, soils, drainage patterns, and natural vegetation.
- Install controls that protect your project’s disturbed areas from being washed away.
- Slow down storm water runoff.
- Stabilize disturbed areas immediately.
- Do not disturb soils during winter when a vegetative cover cannot be established.
- Maintain erosion controls.



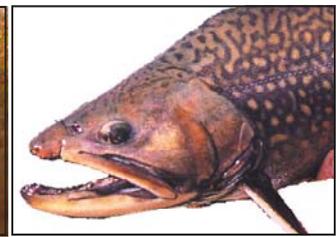
Appalachian elktoe mussel,
Photo: Richard Biggins USFWS



Tangerine darter
(*Percina aurantiaca*)



Flatheaded Mayfly
Photo: Jeremy Monroe,
Freshwaters Illustrated



Brook trout
(*Salvelinus fontinalis*)

Soil erosion and sedimentation are major threats to aquatic organisms.

The Law and Mandatory Standards For Land Disturbing Activities

Land owners and grading contractors are legally responsible for controlling sedimentation from any size soil disturbance. In Haywood County, depending upon the location of your site, one of two ordinances will apply.

1. **The Haywood County Sediment Control Ordinance** applies to all areas outside the corporate boundaries and the one mile extraterritorial jurisdictions of the towns. This law is administered by the Haywood County Erosion and Sediment Control Program.

2. **The North Carolina Sedimentation Pollution Control Act of 1973** applies in the town limits of Canton, Clyde, Maggie Valley, and Waynesville, including their one mile extraterritorial jurisdictions. The Land Quality Section of the North Carolina Department of Environment and Natural Resources administers this law.

The major difference between the two laws is the size of the disturbed area. Sites with disturbed areas below the size stated in the law do not need prior Plan approval; however, in all cases you are required to keep sediment on your site and prevent damage to other property, as well as streams, ponds and lakes. Any size site requires temporary or permanent ground cover.

Standard #1

County: Whenever disturbing **one-half acre or more** for a residential or commercial site, an Erosion and Sediment Control Plan must be filed and approved, and a Land Disturbing Permit issued by the County prior to beginning work. This includes access roads, borrow pits and waste areas.

Town: You are required to file an Erosion and Sediment Control Plan and obtain approval from the State if **one or more acres** is disturbed.

*Note: All plans must be filed at least **30 days** prior to beginning any activities.*

Standard #2

A **buffer zone** is required along all bodies of water and natural waterways. It must be wide enough to confine all visible sediment within the first 25% of the buffer zone nearest the land disturbing activity. Designated Trout Waters must have buffers that meet the same requirements and be at least 25 ft wide.

Standard #3

The **slope** of graded areas and fills must be capable of retaining a vegetative cover or other adequate erosion control devices and structures. All slopes must be planted or have other adequate erosion control measures in place within 15 working days or 21 calendar days of completion of any phase of grading, whichever is shorter.

Standard #4

A **permanent ground cover**, sufficient to restrain erosion after construction is complete, must be provided within 15 working days or 90 calendar days, whichever is shorter. This time is shortened to 60 days adjacent to High Quality Waters.

NOTE: This brochure highlights portions of our erosion and sediment control regulations. It is not a substitute for the law. Other restrictions may apply, such as those applying to inspection, maintenance, and stormwater control, regardless of project size. Be sure you understand all applicable laws. If you have questions, contact the regulatory agencies listed on the back page.



Soil erosion and the resulting stream sedimentation is the number one water pollution problem in Haywood County.



Soil erosion is the process; sediment is the polluting result.



In all cases you are required to keep sediment on your site.



To reduce sedimentation, erosion and sediment control measures must be installed and maintained correctly.



Poorly planned and maintained dirt roads, unstabilized ditches, and road banks are major sources of sediment in Haywood County. Check your erosion controls regularly. If additional measures are needed, install them before you have a major washout.

Publications

The following publications provide helpful information.

- *Erosion & Sediment Control Planning and Design Manual*. NC Department of Environment and Natural Resources and the NC Agricultural Extension Service, supported by the Sedimentation Control Commission.
- *Erosion & Sediment Control Field Manual*. NC Department of Environment & Natural Resources and NC Agricultural Extension Service, supported by the Sedimentation Control Commission.
- *The Layman's Guide To Private Road Construction In The Southern Appalachian Mountains*. USDA Natural Resources Conservation Service.
- *What Regulations Affect Land Disturbing, Land Clearing, Development, and Construction Projects?* Haywood Waterways Association, Haywood County Planning Office, Haywood County Erosion Control Program, and Haywood Soil and Water Conservation District

Technical Help

Get help before starting your project to prevent future problems.

Help is available locally from the following agencies:

Soil best management practices, stream restoration, and cost share programs:

- Southwestern NC Resource Conservation & Development
USDA Service Center
589 Raccoon Road, Suite 201
Waynesville, NC 28786
(828) 452-2519
- Haywood Soil & Water Conservation District
USDA Service Center
589 Raccoon Road, Suite 203
Waynesville, NC 28786
(828) 452-2741 or 5132, Ext. 3
- NC Cooperative Extension Service
589 Raccoon Road, Suite 118
USDA Service Center
Waynesville, NC 28786
(828) 456-3575

- USDA Natural Resources Conservation Service
USDA Service Center
589 Raccoon Road, Suite 203
Waynesville, NC 28786
(828) 456-5132

Grading permits; Erosion and Sediment Control Plan approval in Haywood County:

- Erosion and Sediment Control Program
Haywood County Annex II
1233 North Main Street, Box 12
Waynesville, NC 28786
(828) 452-6706

Mining, logging, and Erosion and Sediment Control Plan approval in towns:

- NC Department of Environment & Natural Resources
Land Quality Section
2090 U.S. Highway 70
Swannanoa, NC 28778
(828) 296-4500

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Additional copies are available from the **Haywood Waterways Association**.

P.O. Box 389, Waynesville, NC 28786, 828-452-9077; info@haywoodwaterways.org, www.haywoodwaterways.org

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