



North Carolina Forest Service



A Division of the N.C. Department of Agriculture and Consumer Services
Steve Troxler, Commissioner

BMP Newsletter

Best Management Practices for Water Quality & Soil Conservation



This issue's cover photo was taken in Franklin county as part of N.C. Forest Service's 4th cycle of the BMP implementation assessments. The picture shows an ephemeral stream with a 20-ft wide streamside management zone (SMZ). The SMZ was gradually widened to 50-ft as the stream began to become intermittent. This is an example of a managed site that went above and beyond legal requirements set forth in the Riparian Buffer Rules and Forest Practice Guidelines Related to Water Quality.

For more information on the BMP implementation assessment project, visit:

https://www.ncforestservice.gov/water_quality/wq_bmp_studies.htm

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Happy New Year!

BMP Resolution: Cover it Up, Secure it Fast

Happy New Year!

The soil erosion process can be broadly categorized into detachment, transportation and deposition. Rain drops striking bare soil detach soil particles and move them short distances. This type of erosion is often termed splash or rainsplash erosion. Rainsplash during small rain events can dislodge soil particles and make the soil more vulnerable to subsequent rain events. According to Brooks and others (2003) greater than **200 metric tons (220 tons)** of soil can be splashed into the air on a single hectare (2.47 acres) of bare and loose soil during a large rain event. Splashed soil particles can surge into the air more than 0.5 m (1.6 ft) and 1.5 m (4.9 ft) sideways!



Splash erosion.

Photo credit: Natural Resources Conservation Service, USDA.

Providing soil cover to reduce rainfall impacts is a fundamental BMP that will ultimately help minimize water quality impacts on forestry sites. This new year, let's make an extra effort to cover and secure as much bare soil as possible by implementing cost effective BMPs. Add 'Cover it Up, Secure it Fast' to your list of quick, simple phrases to convey erosion control concepts. Let's remember to also "Slow it down, spread it out."

Happy New Year!

Brooks, K.N.; Ffolliott, P.F.; Gregersen, H.M.; DeBano, L.F. 2003. *Hydrology and the management of watersheds* (Ed. 3). Iowa State University Press. Page 161.

Slash as an Effective BMP

Leftover woody debris, commonly referred to as slash or laps, can be used as a cost-effective BMP to stabilize soil and divert runoff. It is often widely available across harvested tracts as limbs break off during the felling and processing stages. Pictured right is a view of the general harvest area following a clearcut operation. Notice the amount of slash left on the ground and small amounts of exposed soil.



Considerable amounts of slash are often generated at the deck/landing (an example pictured left) as the trees are processed/bucked to merchantable lengths for transport to mills. A grapple skidder can grab some of this slash and deposit it along trails as they leave the deck for the next bundle of stems (pictured left). This can be a very cost effective BMP *so long as* the slash makes contact with the soil below it! This can be accomplished along trails by simply driving overtop of the debris.

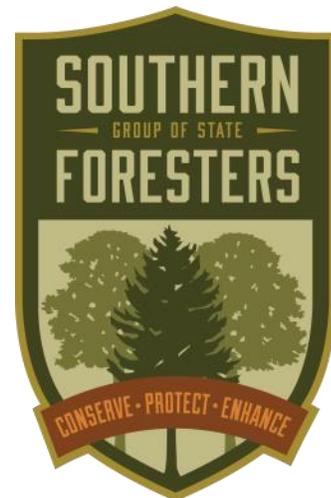


Pictured below is an example of effective (bottom left) and ineffective (bottom right) use of slash on skid trails.

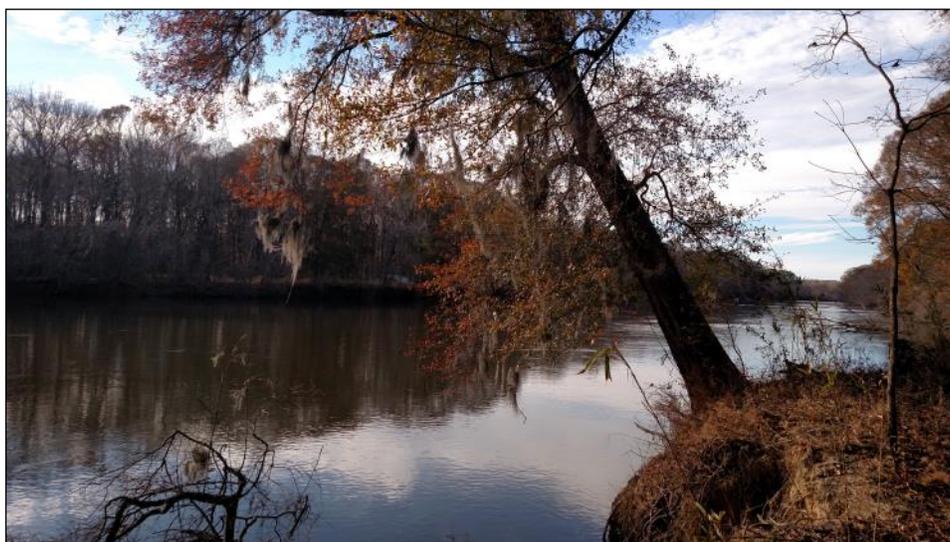


Southern Group of State Foresters: Water Resources Committee

The Southern Group of State Foresters (SGSF) is a non-profit organization consisting of representatives from state forestry agencies that meet on an annual basis to discuss topics surrounding sustainable forest management. States in the southeastern U.S. participate to learn, support and work with one another to more effectively deliver services and assistance to their respective states. Learn more about the organization and its structure here: <http://www.southernforests.org/about>



Healthy forests are critically important for protecting water supplies. Therefore, the SGSF developed a sub-committee called the Water Resources Committee to focus on water topics related to forest management. Established in 2001, this committee addresses topics specifically related to the application of BMPs, development of a consistent BMP monitoring protocol, training, state program reviews and policy analysis. Representatives in this committee from the southern states make recommendations to the organization's leadership accordingly.



N.C. Forest Service's Water Resources Branch is a member of this group. Last year, the committee met in Savannah, Georgia and toured an actively managed property along the Savannah river (pictured left). The landowner described the history of his land and how it is managed. The purpose of this tour was multifaceted, but one outcome was perspective on motivators for management with an enhance objective of protecting water supply watersheds.

In January, the committee is slated to discuss the latest developments on the Waters of the U.S. (WOTUS) rulemaking (<https://www.epa.gov/wotus-rule>), erosion modeling of forestry operations, outreach surrounding conservation efforts in critical areas, and much more.

Upcoming Events:

Western Region Events

Feb. 2 @ South Mountains
State Park, [Wintergreen Hike](#)

Mar. 26 @ Kernersville,
[River Course 401:
Construction Practices for
Stream Restoration](#)

Piedmont Region Events

Mar. 21+22 @ Raleigh,
[WRRRI 2019 Annual
Conference](#)

May 3+4 @ Laurinburg,
[Mid-Atlantic Logging and
Biomass Expo](#)

Eastern Region Events

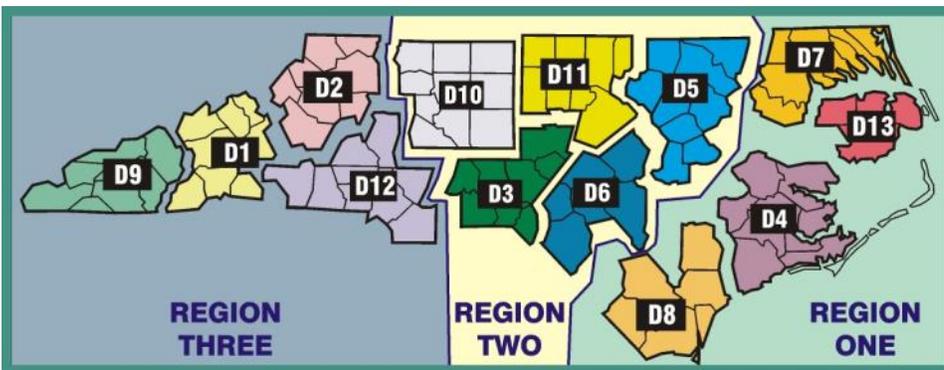
Feb. 12 @ Brunswick,
[Present Use Valuation Lunch
Meeting](#)

Mar. 26+27 @ Goldsboro, NC
[ProLogger Base Class](#)

North Carolina Forest Service

WATER RESOURCES BRANCH

1616 Mail Service Center. Raleigh, NC. 27699-1600



Western Region

**Western Mountains
(D9, D1)**

John Williams : 828-774-8362

**Foothills
(D2, D12)**

Richard Cockerham: 704-616-0747

Piedmont Region

**Northern Piedmont
(D5, D10, D11 [North of I-40])**

Nancy Blackwood: 336-500-3661

**Southern Piedmont
(D3, D6, D10 [South of I-40])**

Matt Vincett: 910-334-0025

Eastern Region

**Northern Coastal Plain
(D7, D13, +Beaufort and Pitt)**

Cathy Gilkeson: 252-286-0881

**Southern Coastal Plain
(D4 [-Beaufort and Pitt], D8):**

Paul Mowrey: 252-286-0862

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www.ncforestservice.gov

Purchase NCFS Forest Tree Seedlings

www.buynctrees.com

NCDA&CS Agricultural Services

www.ncagr.gov

Keep Your Home Safe From Wildfire

www.ncfirewise.org

Go Out and Learn in the Forest

www.ncesf.org

Locate North Carolina Farm Products

www.ncfarmfresh.com

www.gottobenc.com

What Does This Terminology Mean?

Erodibility—Used to describe the susceptibility of a soil to erosion. Soil moisture, frost, and time since disturbance change the erodibility of a soil. Soils with higher erodibility lead to more materials moved during a rain event than that of a soil with lower erodibility. This term is often found in soil surveys.

Erosivity—Describes the characteristic of water, wind or ice and their ability to cause erosion. Higher speeds and greater volume increase erosivity.

Email your questions to NCFS.water@ncagr.gov.