



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 is of Mill Tail Creek on the Alligator River National Wildlife Refuge in Dare County. Much of the watershed area flowing into this creek is less than three feet above sea level. The pocosin wetlands within the refuge are typically characterized by organic soils such as [Pungo Muck soil series](#). Forest operations in these types of wet-natured soils should consider the recommended shovel logging BMPs in Chapter 8 of the 2021 [BMP manual](#).

Atlantic White Cedar, a tree species that grows on wet ground, can be found throughout the refuge. However, impacts from a rising sea level may be contributing to increased observations of declining mature Atlantic White Cedar trees (Doyle and others 2021).

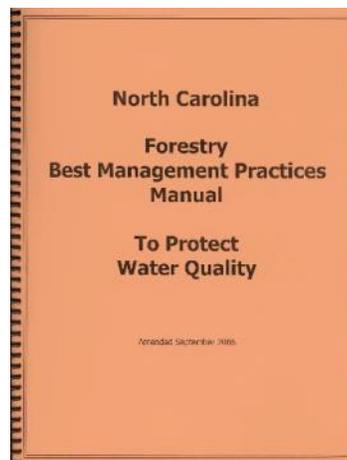
Doyle, J.M.; Earley, K.E.; Atkinson, R.B. An Analysis of Atlantic White Cedar (*Chamaecyparis thyoides* (L.) B.S.P.) Tree Rings as Indicators of Ghost Forest Development in a Globally Threatened Ecosystem. *Forests* 2021, 12, 973. <https://doi.org/10.3390/f12080973>.

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N.C. Forestry BMP Manual Available Online

The N.C. Forestry BMP manual, Third Edition, was published online in February 2022. A limited number of printed manuals will be made available to forestry practitioners later this year. The printed version will be black and white, while the online manual is in full color. Once the printed manuals become available and are distributed to our [county forest ranger offices](#), we will announce to the forestry community that limited copies are available for pick up at the local offices. You are encouraged to download the manual and other supplemental resources from the agency website.



Two components of the BMP manual will be available online only:

Appendix 9: A Bibliography of Published Scientific Research Related to Forestry Best Management Practices, Post-2006.

Appendix 10: Laws, Rules and Guidance.

Keeping these online only enables us to periodically update information without having to reprint and redistribute the manuals.



Don't forget to check out the right-hand side of our webpage for the "What's Changed" document and "Notable Revisions in the 2021 Edition" slides.

Planning Forestry Operations

Planning will assist you with identifying sensitive areas and applicable BMPs to protect water quality before, during and after the forest operation. While a written plan/contract is not required to conduct silvicultural operations, it's a wise practice to maintain written records of any forest management activity. A good plan and adequate supervision are key to a successful forest operation.

So where might you begin? How about the public service agency dedicated to the protection, conservation and stewardship of North Carolina's forests...the *N.C. Forest Service!* Our agency offers a wide variety of forest management programs and services that can help landowners become more knowledgeable about their woodlands as well as their options. N.C. Forest Service foresters and rangers can work one-on-one with landowners to prepare a woodland plan that is tailored to your unique management goals and property.

When it comes time to execute your management plan on the ground, a more detailed and operational plan often referred to as a preharvest plan is recommended. A generalized five-step preharvest plan for water quality protection is outlined in Chapter 3 of the BMP manual. Those recommended steps are geared towards foresters and logging operators.

For a preharvest plan example that emphasizes water quality protection, check out the "Preharvest Plan Mock-Up" in the Related Resources of this [webpage](#).



Forest Preharvest Planning Site Summary Report

General Tract Information

Tract ID	2284	Date Revised	20-09-2014
Tract Name		Tract Area	20.24
County	Waynes	Area Basis	Acres/Forest Base
NCFPS Contact	John McBratley, Water Quality Forester	Phylogenic Region	Flathead
		Geologic Province	Carolina State Belt
NCFPS District	000000000	Latitude	35° 15'
NCFPS Contact Phone	910-752-4100	Longitude	80° 31'

Forest Preharvest Planning Soils Summary Report

Forest Preharvest Planning - owner owned

NC 8.5, 11.13, 11.14, 11.15, 11.16, 11.17, 11.18, 11.19, 11.20, 11.21, 11.22, 11.23, 11.24, 11.25, 11.26, 11.27, 11.28, 11.29, 11.30, 11.31, 11.32, 11.33, 11.34, 11.35, 11.36, 11.37, 11.38, 11.39, 11.40, 11.41, 11.42, 11.43, 11.44, 11.45, 11.46, 11.47, 11.48, 11.49, 11.50, 11.51, 11.52, 11.53, 11.54, 11.55, 11.56, 11.57, 11.58, 11.59, 11.60, 11.61, 11.62, 11.63, 11.64, 11.65, 11.66, 11.67, 11.68, 11.69, 11.70, 11.71, 11.72, 11.73, 11.74, 11.75, 11.76, 11.77, 11.78, 11.79, 11.80, 11.81, 11.82, 11.83, 11.84, 11.85, 11.86, 11.87, 11.88, 11.89, 11.90, 11.91, 11.92, 11.93, 11.94, 11.95, 11.96, 11.97, 11.98, 11.99, 12.00

Soils Summary Report

Map showing various soil types and management zones. Legend includes:

- Riparian Buffer (Riparian Buffer)
- Stream (Stream)
- Wetland (Wetland)
- Other areas (Other areas)

Communicating the plan with all involved in the operation can be one of the most valuable BMPs to implement. The [Forestry Preharvest Planning Tool](#) (FPPT) can be used to help communicate how water quality will be protected through the implementation of BMPs.

The **FREE** online planning tool allows users to create maps and plan forest operations anywhere in North Carolina. Users can identify areas of concern and potential soil limitations. Additionally, users can draw operational features such as skid trails, log decks, streamside management zones and place them overtop topographic and aerial maps. If you haven't checked it out recently, take a quick look to see the improvements made over the past couple of years.

<https://www.ncmhtd.com/ncfs/fppt/login.aspx>.

If you have a group of 25 or more who would like an in-person demonstration of the tool, email us at NCFS.Water@ncagr.gov to make arrangements.

Welcome Maria and Matthew



Maria Polizzi joined the Water Resources Branch in January 2022 as our forest water quality senior specialist. She comes to us with a wealth of knowledge in soil science and erosion control techniques. She attained an undergraduate degree in environmental technology and management with a minor in biology and soil science, followed by a master's degree in soil science. She received both degrees from N.C. State University. Her education and professional experiences bring a new, highly valued perspective to the N.C. Forest Service. We are very pleased to have Maria join the team and look forward to working and learning with her!

919-857-4855 (O); 984-233-9007(C)

Email: Maria.Polizzi@ncagr.gov

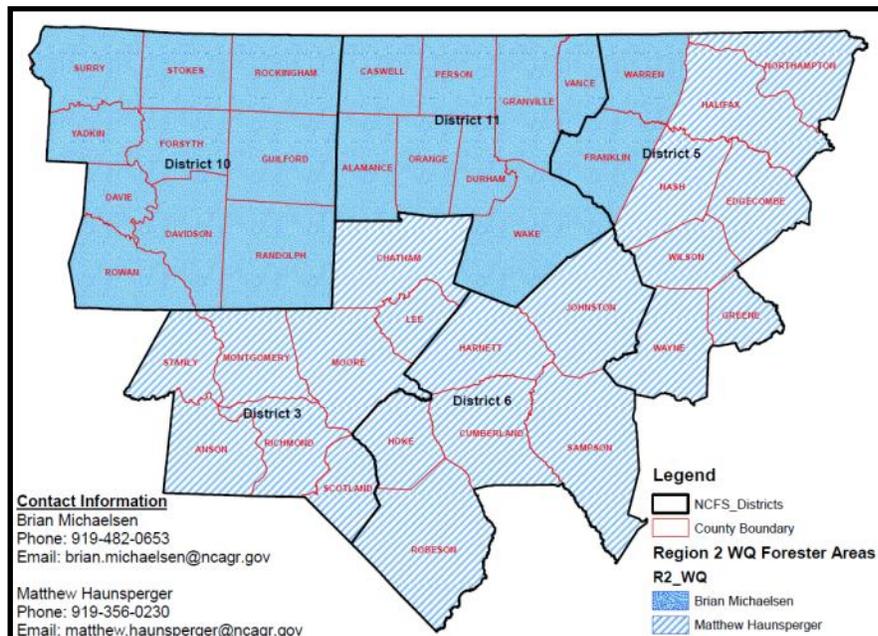
Matthew Haunsperger advanced into the region 2 water quality forester position that became vacant when Matt Vincett retired. Matthew worked as an assistant county ranger in Harnett County and service forester in District 6. Before his work experience with the N.C. Forest Service, he graduated from N.C. State University with an undergraduate degree in forest management with minors in entomology and environmental science. With Matthew's schooling and work experience he is well positioned for his new role as water quality forester.

919-356-0230 (C)

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New Water Quality Forester Areas in Region 2



Has your straw mulch ever blown away?

To help prevent this from happening the construction industry uses tackifiers, which are essentially adhesives. Emulsified asphalt, and more recently hydromulch products, are the most commonly utilized tackifiers for public roadway projects. N.C. State University researchers tested these products along with others to determine which would most successfully achieve permanent grass establishment, i.e., stabilization. Several products were found to be effective. Hydromulch ranks at the top of the list when considering factors such as cost, convenience and accessibility. Tackifiers applied to steep road banks on forest roads, or along road segments adjacent to open areas such as clearcuts, should decrease erosion and improve grass seed germination rates.



Photo credit: N.C. State University

For recorded and live webinars related to forestry and/or erosion control, check out:
[The Forestry & Natural Resources Webinar Portal](#)
[Source Water Protection Through Forestry Partnerships](#)
[How the River Flows Podcast](#)

N.C. Forest Service - Water Quality

www.ncforestsservice.gov/water_quality/water_quality.htm

Healthy Trees, Healthy Lives

www.healthytreeshealthy lives.org

North Carolina Forest Service

WATER RESOURCES BRANCH

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

Protect, Manage and Grow Your Forest
www.ncforestsservice.gov

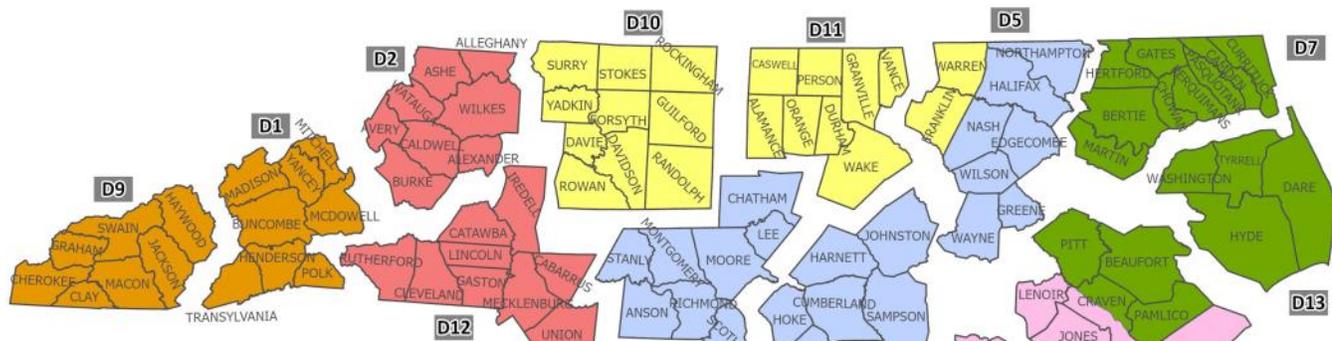
NCD&CS Agricultural Services
www.ncagr.gov

Go Out and Learn in the Forest
www.ncesf.org

Purchase NCFS Forest Tree Seedlings
www.buynctrees.com

Keep Your Home Safe From Wildfire
www.resistwildfire.org

Locate North Carolina Farm Products
www.ncfarmfresh.com
www.gottobenc.com



Water Quality Forester Area and Contact Number

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- Billy Barnette 252-560-5467

