

State Specific Training Module for North Carolina



Purpose of this Module

This module will provide some general information that TSPs need to conduct conservation planning in North Carolina. This information is general in nature so the TSP may need to follow up with additional reading or training to make sure they have the knowledge, skills, licenses and certifications to conduct conservation planning in North Carolina.



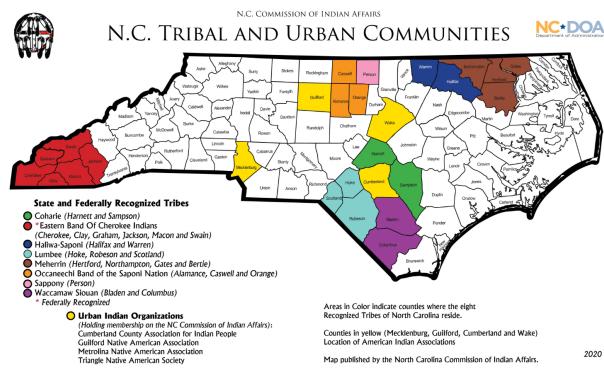
North Carolina

- North Carolina is composed of 100 counties in three main geographic sections:
 - The Atlantic Coastal Plain
 - The Piedmont
 - Appalachian Mountains and Foothills
- The extreme eastern section of the state contains the Outer Banks, a string of sandy, narrow barrier islands between the Atlantic Ocean and two inland waterways or "sounds": Albemarle Sound in the north and Pamlico Sound in the south. They are the two largest landlocked sounds in the United States.



Review of Major Land Ownership

- Most land in North Carolina is privately owned.
- There is a large amount of federally-owned land in western NC, comprising National Forests and National Parks- especially at higher elevations.
- The map highlights the counties where state and federally recognized tribes are located. For more information on tribal communities in NC visit: NC Tribal Communities | NC DOA





Review of Major Land Uses

North Carolina is comprised of 46,418 farms with approximately 8,430,522 acres. The average farm size being 182 acres.

• Cropland: 59.3%

• Woodland: 23.9%

Permanent Pasture: 11.2%

Other Farmland: 5.6%

Data obtained from 2017 Census of Agriculture, USDA, National Agricultural Statistics Service (NASS)



Forestry

- North Carolina's private landowners own close to 83% of the state's 18.7 million acres of forestland. Conservation planners play a critical role in ensuring that our forests are productive, diverse, and healthy. Decisions have long-term impact on wildlife habitat, clean air, clean water, wood supply, and outdoor recreational opportunities.
- In NC, TSPs are required to have a Registered Forester certification from the North Carolina State Board of Registration for Foresters.

AS PER CHAPTER 89B OF THE GENERAL STATUTES OF THE STATE OF NORTH CAROLINA:

"Foresters"

" § 89B-1. General provisions.

(a) No person shall use the designation 'forester', 'registered forester', or any other descriptive terms that include the words 'forester' or 'registered forester' and that directly convey that the person is a forester without first having been registered under this Chapter.



Comprehensive Nutrient Management

- North Carolina is on of the top five states in the continental U.S. for Animal Feeding Operations (AFOs). Understanding the importance and responsibility that we carry as a state, all Comprehensive Nutrient Management planners in NC must obtain a Waste Utilization Plan/Nutrient Management (WUP/NM) Technical Specialist designation through the North Carolina Department of Agriculture Soil and Water Conservation Commission (SWCC).
- More information can be found at <u>NCDA&CS Soil & Water</u> <u>Conservation Division - Professional Development</u> <u>(ncagr.gov)</u>



Comprehensive Nutrient Management

- Required In-Person Nutrient Management Training offered through NC State University (<u>Nutrient Management Training – REPORTER Events</u> (<u>ncsu.edu</u>)). This course covers all of the training requirements for the WUP/NM designation.
- Experience/education requirements needed for WUP/NM designation:
 - 1) Previous WUP designation; or
 - 2) 3 years of nutrient management planning;
 - 3) 4 year degree in agronomy or related field; or
 - 4) A combination of education and experience totaling 4 years; or
 - 5) NRCS Job Approval Authority; or
 - 6) Professional Engineer licensed after April 1, 2003
- Submit an Application for Designation to the SWCC once all requirements are met.



Pest Management

- NC requires valid pesticide applicator and consultant licenses for professionals who apply pesticides or write pesticide prescriptions on a consulting basis.
- The North Carolina Department of Agriculture and Consumer Services administers the state's pesticide applicator license program.
- For more information go to <u>http://www.ncagr.gov/SPCAP/pesticides/license.htm</u>



Prescribed Burning

 In NC, all Prescribed Burning planners must obtain a Certified Prescribed Burner Certification from the North Carolina Forest Service (NCFS).

How to Become a NC Certified Burner? Visit:

North Carolina Forest Service (ncforestservice.gov)

Related Resources:

Burn Plan Form 4210 from NCFS (https://ncforestservice.gov/fire_control/pdf/fillable_burn_plan.pdf)

Burner Certification Checkoff Sheet (BURNER CERTIFICATION CHECKOFF SHEET (ncforestservice.gov))



Engineering

 For the planning, design, installation, and certification of engineering practices, TSPs are required to have a Professional Engineer's license from The North Carolina Board of Examiners for Engineers and Surveyors.

Engineering Practices include:

| Access Road (560) | Agrichemical Handling Facility (309) | Agricultural Energy Design (DIA 120) | Air Filtration and Scrubbing (371) | Amendments for Treatment of Agricultural Waste (591) |
|-----------------------------|--|--|------------------------------------|--|
| Anaerobic Digester (366) | Animal Mortality Facility (316) | Anionic Polyacrylamide (PAM) Application (450) | Aquaculture Pond (397) | Channel Bed Stabilization (584) |
| Clearing and Snagging (326) | Combustion System Improvement (372) | Composting Facility (317) | Constructed Wetland (656) | Dam (402) |
| Dam, Diversion (348) | Denitrifying Bioreactor (605) | Dike and Levee (356) | Diversion (362) | Drainage Water Management (554) |

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| Dry Hydrant (432) | Dust Management for Pen Surfaces (375) | Dust Control on Unpaved Roads and Surfaces (373) | Emergency Animal Mortality Management (368) | Energy Efficient Agriculture Operation (374) |
|--|---|--|--|--|
| Energy Efficient Building Envelope (672) | Energy Efficient Lighting System (670) | Grade Stabilization Structure (410) | Grassed Waterway (412) | Groundwater Testing (355) |
| Heavy Use Area Protection (561) | Hillside Ditch (423) | Improved Management of Drainage Water Design (DIA 164) | Irrigation and Drainage Tailwater Recovery (447) | Irrigation Canal or Lateral (320) |
| Irrigation Ditch Lining (428) | Irrigation Field Ditch (388) | Irrigation Land Leveling (464) | Irrigation Pipeline (430) | Irrigation Reservoir (436) |
| Irrigation System, Microirrigation (441) | Irrigation System, Surface and Subsurface (443) | Irrigation Water Management (449) | Irrigation Water Management Design (DIA 163) | Land Clearing (460) |
| Land Reclamation, Abandoned Mined Land (543) | Land Reclamation, Landslide Treatment (453) | Lined Waterway or Outlet (468) | Livestock Pipeline (516) | Livestock Shelter Structure (576) |
| Mine Shaft and Adit Closing (457) | Monitoring Well (353) | Obstruction Removal (500) | On-Farm Secondary Containment Facility (319) | Open Channel (582) |
| Pond (378) | Pond Sealing or Lining, Compacted Soil Treatments (520) | Pond Sealing or Lining, Concrete (522) | Pond Sealing or Lining – Geomembrane or Geosynthetic Clay Liner (521) | Precision Land Forming and Smoothing (462) |

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| Pumping Plant (533) | Recreation Land Improvement and Protection (566) | Rock Wall Terrace (555) | Roof Runoff Structure (558) | Roofs and Covers (367) |
|--|--|--------------------------------------|---|---|
| Row Arrangement (557) | Salinity and Sodic Soil Management (610) | Saturated Buffer (604) | Sediment Basin (350) | Short Term Storage of Animal Waste and Byproducts (318) |
| Sinkhole Treatment (527) | Spoil Disposal (572) | Spring Development (574) | Sprinkler System (442) | Stormwater Runoff Control (570) |
| Stream Crossing (578) | Streambank and Shoreline Protection (580) | Structure for Water Control (587) | Subsurface Drain (606) | Subsurface Drain, Field Ditch (607) |
| Subsurface Drain, Main or Lateral (608) | Terrace (600) | Trails and Walkways (575) | Underground Outlet (620) | Vegetated Treatment Area (635) |
| Vertical Drain (630) | Waste Closure Facility (360) | Waste Recycling (633) | Waste Separation Facility (632) | Waste Storage Facility (313) |
| Waste Transfer (634) | Waste Treatment (629) | Waste Treatment Lagoon (359) | Wastewater Treatment, Milk House (627) | Water and Sediment Control Basin (638) |
| Water Harvesting Catchment (636) | Water Well (642) | Watering Facility (614) | Waterspreading (640) | Well Decommissioning (351) |



State Water Quality Regulations

- The NC Division of Water Resources applies Surface Water Classifications to streams, rivers and lakes, which define the best uses to be protected within these waters and carry with them an associated set of water quality standards to protect those uses.
- Classifications and their associated protection rules may be designed to protect water quality, fish and wildlife, or other special characteristics.
- For more information go to <u>Classifications</u> | <u>NC DEQ</u>



Protected Species

- Freshwater mussels, other aquatic species and some plants listed as Endangered or Threatened are the protected species most often encountered in conservation planning situations.
- A list of federally protected species and procedure for documenting effects of conservation practice on protected species can be found in the Field Office Technical Guide (FOTG), Section II.
- Twenty-five counties in western NC contain stream reaches that support Trout Waters where construction activities in the water are normally excluded during the period between October 15 and April 15 unless prior written approval is obtained from the North Carolina Wildlife Resource Commission (NCWRC).



Expected TSP Workflow

- State TSP Coordinator serves as the Point of Contact for TSPs.
- A Resource Conservationist assigned from the NRCS state office's Ecological Sciences staff will be responsible for reviewing TSP conservation planning for the National Planner Certification.
- The Resource Conservationist will conduct plan reviews for TSP planner certification renewals.
- TSPs will work with the local NRCS staff to make sure the proper environmental evaluations (<u>NRCS-CPA-52</u>) are completed.



Additional References or Training

- North Carolina Field Office Technical Guide
- <u>EQIP Conservation Planning Activities (CPAs), Design</u>
 and Implementation Activities (DIAs), and Conservation
 Evaluation and Monitoring Activities (CEMAs)
- Web Soil Survey Home (usda.gov)
- APE Analysis WebTool (Ver. 2.00) (arcgis.com)



Certificate of Completion

- After viewing the State Specific Training module, please sign and date the completion certificate on the following slide.
- The certificate is your acknowledgement that based on the information provided in this module, you have the proper knowledge, skills and ability to conduct planning in this State.
- Within your NRCS Registry profile, enter the training and upload the signed certificate to verify completion.



STATE SPECIFIC TRAINING MODULE COMPLETION CERTIFICATE

| I, hereby verify I hav | e viewed and understand the content of |
|--|--|
| North Carolina State Specific Training Modu ability to conduct conservation planning ser | ule and affirm I have the knowledge, skills, and rvices in this state. |
| TSP Signature | |

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