



# Nutrient Management Fact Sheet: North Carolina

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*Disclaimer:* This document does not constitute legal advice and is intended for educational purposes only. Readers and users are solely responsible for determining, and complying with, all federal, state and local laws, ordinances and regulations.

## Nutrient Management Plans

Topic	Summary
Coverage	<p><a href="#">NPDES</a> permit requires an Animal Waste Management Plan (AWMP).</p> <p><a href="#">Animal Waste Management System Permit</a> is required for operations with 100 or more confined cattle and includes a Certified Waste Management Plan.<sup>1</sup></p>
Content	<p>A certified animal waste management plan shall include:<sup>2</sup></p> <ul style="list-style-type: none"> <li>- A checklist of potential odor sources and a choice of site-specific, cost-effective remedial best management practices to minimize those sources.</li> <li>- Provisions that set forth acceptable methods of disposing of mortalities.</li> <li>- Provisions regarding best management practices for riparian buffers or equivalent controls, particularly along perennial streams.</li> <li>- Provisions regarding the use of emergency spillways and site-specific emergency management plans.</li> <li>- Provisions regarding periodic testing of waste products used as nutrient sources as close to the time of application as practical and at least within 60 days of the date of application and periodic testing, at least once every three years, of soils at crop sites where the waste products are applied.</li> <li>- Provisions regarding waste utilization plans that assure a balance between nitrogen application rates and nitrogen crop requirements.</li> <li>- Provisions regarding the completion and maintenance of records.</li> </ul>
Frequency of Updates	Under the NPDES permit, annual certification reports must be filed.
Paperwork	Under the NPDES permit, Certified AWMPs will be available for public review for thirty days prior to issuance of coverage under this Permit.
Planner Qualifications	Certified Animal Waste Management Plans must be developed by a Certified Technical Specialist.

## Manure Storage and Application

Topic	Summary
Overview	Animal Waste Management Plans must include practices or combinations of practices that are site-specific and meet NRCS standards, standards adopted by the Soil and Water Conservation Commission and state statutes in place at the time of the development or design. <sup>3</sup>



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	<p>Operations with over 100 dairy cows may also be required to have a certified operator of an animal waste management system. Additional information can be found <a href="#">here</a>.</p> <p>There may be additional requirements for operations in certain locations, including near the <a href="#">Neuse River</a> and <a href="#">Jordan Lake</a>.</p>
Storage	<p><a href="#">Facility Siting/Setback</a> New and expanded waste treatment systems shall be located at least 100 feet from a perennial stream or waterbody.</p> <p><a href="#">Structure</a> Facilities must be designed, constructed, operated, and maintained to contain all waste plus the runoff from a 25-year, 24-hour rainfall event at the time of construction for the location of the facility.</p>
Application	<p><a href="#">Spreading</a> Land application is not allowed<sup>4</sup></p> <ul style="list-style-type: none"> <li>- Within 25 feet of a perennial stream or waterbody.</li> <li>- Within 100 feet from a well.</li> <li>- Within 200 feet from a dwelling not owned by the permittee.</li> <li>- During precipitation events.</li> <li>- On flooded, water-saturated, frozen or snow-covered land.</li> </ul> <p>The CAWMP must specify the field and rates for land application.</p> <p><a href="#">Incorporation</a> If manure is applied on conventionally tilled bare soil, the waste shall be incorporated into the soil within 2 days after application on the land or prior to the next rainfall event.</p> <p><a href="#">Testing</a> The CAWMP includes requirements for periodic testing of waste products used as nutrient sources as close to the time of application as practical and at least within 60 days of the date of application and periodic testing, at least once every three years, of soils at crop sites where the waste products are applied.</p>

## Technical Assistance

Topic	Summary
Software Tools	<a href="#">Nutrient Management Planning Software</a> allows producers to build personalized NC NMPs.



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	<p>Producers can use the following tools for pond planning, designing, and operating and sludge calculations:</p> <ul style="list-style-type: none"> <li>- <a href="#">Pond Volume Calculator</a>.</li> <li>- <a href="#">Sediment Removal Data Sheet and Volume Calculation Tool</a>.</li> <li>- <a href="#">Sludge Volume Calculator</a>.</li> </ul> <p>The <a href="#">AGWRAP – Water Needs Assessment Tool</a> can determine the water needs (demands) of irrigated cropland and livestock consumption, predict monthly runoff, cumulate supply (runoff) and demand, and estimate the required farm pond capacity.</p> <p><a href="#">Manure Management Planner (MMP)</a> is a software tool created by Purdue University that includes state-specific information for North Carolina producers to create manure management plans for crop and animal feeding operations.</p>
Guides / Handbooks	<p>NC NRCS <a href="#">nutrient management 590 standard</a>.</p> <p>NC State University (NCSU) aids producers with:</p> <ul style="list-style-type: none"> <li>- <a href="#">Guidance</a> on fertilizer placement and livestock manure production rates and nutrient contents.</li> <li>- <a href="#">Animal Waste Management Publications and Factsheets</a>.</li> </ul>
Classes / Trainings	<p>The North Carolina Department of Agriculture &amp; Consumer Services (NCDA&amp;CS) offers Technical Specialist training for animal waste systems design and inspection, waste utilization, and nutrient management plans. Information can be found <a href="#">here</a>.</p> <p>Although NC Operator Certification does not conduct training classes, NC DEQ provides access to initial certification schools and continuing education classes for their annual certification exams <a href="#">here</a>.</p>
Tailored Expert Assistance	<p>NCDA&amp;CS facilitates soil and water resource conservation with the following:</p> <ul style="list-style-type: none"> <li>- Division engineers provide <a href="#">technical support</a> to the Agriculture Cost Share Programs, Community Conservation Assistance Program, federal programs, and special projects.             <ul style="list-style-type: none"> <li>o Specifically, Division engineers are available to assist in site assessments, cost estimates, design, layout and construction oversight for projects.</li> </ul> </li> <li>- State staff <a href="#">soil scientists</a> for soil survey mapping, map compilation and GIS processing relating to water table evaluation and pond-site determination.</li> <li>- Within NCDA&amp;CS, the Division of Soil &amp; Water Conservation Commission (SWCC) updates a <a href="#">Technical Specialist Designation</a> map for producers requiring assistance in nutrient management and waste management planning.</li> </ul>



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### Financial Assistance

#### Summary

NCDA&CS SWCC implements the NC Agricultural Cost Share Program ([ACSP](#)), which helps address nonpoint source pollution by providing financial resources designed to improve water quality through the installation of agricultural BMPs. Producers could be reimbursed up to 75% of a predetermined average cost for each BMP installed.

NC NRCS provides assistance through:

- Environmental Quality Incentives Program ([EQIP](#)) - offers financial cost-share assistance to farmers for the adoption of conservation practices and development of nutrient management plans.
- Conservation Stewardship Program ([CSP](#)), which gives producers financial assistance to implement new conservation management practices and enhancements.

The NC Agricultural Water Resources Assistance Program ([AgWRAP](#)), administered by NCDA&CS SWCC, divvies 70% of available BMP funding for district allocations for all approved AgWRAP BMPs. The remaining 30% is allocated for specific AGWRAP BMPs, like new or existing pond construction/repair and water collection and reuse systems, through a competitive regional application process.

<sup>1</sup> [GS 143-215.10C.pdf \(ncleg.gov\)](#)

<sup>2</sup> [https://www.ncleg.net/EnactedLegislation/Statutes/PDF/BySection/Chapter\\_143/GS\\_143-215.10C.pdf](https://www.ncleg.net/EnactedLegislation/Statutes/PDF/BySection/Chapter_143/GS_143-215.10C.pdf)

<sup>3</sup> <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.1304.pdf>

<sup>4</sup> <http://reports.oah.state.nc.us/ncac/title%2015a%20-%20environmental%20quality/chapter%2002%20-%20environmental%20management/subchapter%20t/15a%20ncac%2002t%20.1304.pdf>