15A NCAC 02T .1310 is proposed for adoption as follows:

15A NCAC 02T .1310 SURFACE WATER AND GROUND WATER MONITORING

(a) All facilities not permitted by regulation pursuant to Rule .1303 of this Section shall monitor any unpermitted waste discharge to surface waters.

(1) All runoff of waste from receiver sites or discharges from storage structures shall be sampled at least once during the event. For the purposes of this provision, an event is defined as the time from the beginning of the discharge of waste until the discharge of waste is ceased regardless of the duration of discharge. The discharge shall be sampled for the parameters in Subparagraph (a)(4) of this Rule.

(2) Facilities with known subsurface drains shall make visual observations of subsurface drains during all land application of waste events. If visual observations indicate that waste may be present in the subsurface drain discharge, the permittee shall sample the subsurface drain discharge for the parameters in Subparagraph (a)(4) of this Rule. Additional observations and sampling may be required based on violations related to land application of waste events and known discharges from subsurface drains.

(3) At least twice per year, facilities with known subsurface drains shall make visual observations of subsurface drain outlets within forty-eight hours after a land application event and after a rainfall event subsequent to a land application event for a minimum of two visual inspections per year for each field with subsurface drains. If visual observations indicate that waste may be present in the subsurface drain discharge, the permittee shall sample the subsurface drain discharge for the parameters in Subparagraph (a)(4) of this Rule. Additional observations and sampling may be required based on violations related to land application of waste events and known discharges from subsurface drains.

(4) Waste discharges shall be sampled for the following parameters: 5-day Biochemical Oxygen Demand (BOD_5), Total Kjeldahl Nitrogen (TKN), Ammonia Nitrogen (NH_3-N), Nitrate Nitrogen (NO_3-N), Fecal Coliform, and Chloride.

(b) A surface water monitoring plan, for all facilities not permitted by regulation pursuant to Rule .1303 of this Section, shall be established, in accordance with the schedule provided in Rule .1311 of this Section, to track the performance of the permitted system, verify that the system is protective of surface water standards as well as document water quality parameter concentrations in adjacent surface waters, and compliance with permit discharge limitations.

(1) The Division shall determine up to three representative sampling locations per farm site including one location that provides background conditions. The Division may consider recommendations by the permittee regarding sampling locations. Representative locations shall include waters in groundwater lowering ditches and subsurface drains when present. Representative locations shall consider soils, hydrogeology, loading rates, and application methods. Where surface water

locations are not representative for the receiver sites or storage structures, monitoring ground waters adjacent to surface waters may be required. Representative surface water locations for artificially drained receiver sites include:

(A) Groundwater lowering ditches that are collectively representative of subsurface drain discharges from receiver sites or storage structure sites if the ditch is a discernible and discrete source of groundwater from receiver sites or storage structure sites; or

(B) Subsurface drains may be selectively sampled (i.e., one drain sampled to be representative of multiple drains in a receiver site or storage structure site) based on uniformity of application across fields (both design and actual), soil characteristics, and hydrogeologic setting.

(2) If three surface water sampling locations cannot be identified on or adjacent to the farm site, the monitoring plan may be reduced to only those representative locations on or adjacent to the farm site such as intermittent and perennial streams, perennial waterbodies, subsurface drain outlets, groundwater lowering ditches.

(3) The plan shall include three sampling events every calendar year, except as otherwise provided for in this Paragraph, as follows:

(A) One sampling event during the months of January or February;

(B) One sampling event after a representative land application event during the months of March or April;

(C) One sampling event after a representative land application event during the months of July, August, or September; and

(D) For any of the sampling events required by this Subparagraph, if flow at sampling locations is not present at the time of scheduled sampling, sampling shall occur when flow is present at the sampling location. If a representative land application event does not occur during the prescribed months, a sample shall be taken after the next land application event.

(4) Samples shall be collected and analyzed for the following constituents: Ammonia Nitrogen (NH_3-N), Nitrate Nitrogen (NO_3-N), and Chloride.

(5) Where there is adequate documentation of functioning best management practices, features such as storage structures meeting NRCS standards, riparian buffers, or drainage control structures in artificially drained sites, contingent on the continued proper operation and maintenance of these features, a monitoring plan may be reduced in scope and frequency based on the effectiveness of those features.

(6) Requests for reduction in monitoring may be submitted to the Division. Requests for reduction in frequency, including elimination of monitoring, shall be based on the consistency of historical data, time of monitoring with respect to expected pollutant time of travel, the levels of pollutants in historical data, other criteria in this Paragraph, and the priorities in Rule .1311 of this Section.

(7) Notwithstanding the provisions in Subparagraphs (b)(1) – (b)(6) of this Rule, changes in monitoring plans established in accordance with the provisions of this Rule may be required to:

(A) determine the extent of detected pollutants beyond the area actively monitored based on data submitted;

(B) further quantify pollutants based on data submitted;

(C) further delineate fate of pollutants in surface water;

(D) document impact of an increase, or further increase, in loading rates;

(E) address changes in management practices;

(F) assess deficiencies that may increase loadings to surface waters; or

(G) assess deficiencies of the monitoring plan established in accordance with the provisions of this Rule.

(c) Permittees may join monitoring coalitions upon entering a Memorandum of Agreement with the Division to monitor collectively in lieu of monitoring on a permit-by-permit basis. In such cases, monitoring by the coalition shall serve in place of any monitoring required by Paragraph (b) of this Rule. If at any time a permittee terminates membership in the coalition while maintaining a permit, the permittee shall immediately notify the Division and monitor as stipulated in the permit. Monitoring by coalitions shall be based on the following criteria:

(1) The coalition plan shall be based on the criteria in Paragraph (b) of this Rule and Rule .1311 of this Section;

(2) Each member farm site shall have at least one representative sampling location;

(3) Additional sampling locations not located on member farm sites may be included to document functionality or applicability of BMPs, riparian buffer efficiency, or other management practices; and

(4) The coalition plan may consider sampling locations of other coalitions, Division ambient sampling locations, and other ambient monitoring locations where the data is submitted to the Division or is publicly available.

(d) Establishment of a groundwater monitoring plan.

(1) A monitoring plan shall be established to assess the facility's impact on ground waters when water supply wells on property not owned by the permittee are downgradient of ground water beneath receiver sites or waste storage structures and at least one of the following:

(A) the off site water supply has contamination of pollutants that are known or likely to be present in the waste applied or stored on the farm as well as water quality parameters related to those pollutants;

(B) violations for over application of waste; or

(C) documentation that waste storage structures do not meet NRCS standards.

(2) The Division shall notify any facility that meets the criteria in Subparagraph (d)(1) of this Rule of the requirement to establish a monitoring plan as well as the requirements provided in 15A NCAC 02L.

(3) The scope and type of monitoring plan as well as the parameters to be monitored shall be based on:

(A) permitted and actual application rates (both hydraulic and nutrient);

(B) materials, nutrients or other waste applied to receiver sites;

(C) adsorption and degradation of pollutants within the soil matrix;

(D) site-specific hydrogeology and soils;

(E) likelihood of secondary and cumulative impacts including vulnerability (proximity to, hydrogeologic setting, well construction) of water supply wells and groundwater classification; and

(F) pollutants that are known or likely to be present in the waste stream based on source of wastewater or water quality parameters related to those pollutants.

(4) In addition, requests for reduction in monitoring may be submitted to the Division. Requests for reduction in frequency, including elimination of monitoring, shall be based on the consistency of historical data, time of monitoring with respect to expected pollutant time of travel, and the levels of pollutants in historical data, as well as the factors in Subparagraph (d)(3) of this Rule.

(5) Notwithstanding the provisions in Subparagraphs (d)(1) – (d)(4) of this Rule, changes in monitoring plans established in accordance with the provisions of this Rule may be required to:

(A) determine the extent of detected pollutants beyond the area actively monitored based on data submitted;

(B) develop and implement a corrective action plan in accordance with 15A NCAC 02L;

(C) document impact of an increase in loading rates;

(D) assess deficiencies that may further increase loadings to ground waters; or

(E) assess deficiencies of the monitoring plan established in accordance with the provisions of this Rule.

(e) Results of all analyses and inspections required by this Rule shall be reported to the Division annually, except for waste discharges that require immediate notification or as otherwise required by Commission rules, on Division supplied forms or forms approved by the Division as providing the same information as required by the Division's forms.

History Note: *Authority G.S. 143-215.1; 143-215.3(a); 143-215.64*
Eff.

15A NCAC 02T .1311 is proposed for adoption as follows:

15A NCAC 02T .1311 SURFACE WATER MONITORING IMPLEMENTATION

(a) New and expanding facilities shall submit with the permit application a proposed monitoring plan as provided in Rule .1310 of this Section for the entire facility to be covered by the permit.

(b) For existing facilities, provisions for monitoring plans in Paragraph (a) of Rule .1310 of this Section, not previously required in permits, shall be incorporated into permits upon renewal.

(c) For existing facilities in operation prior to July 1, 2008, the Division will provide 60 days notice prior to establishing a monitoring plan that addresses the provisions of Paragraph (b) of Rule .1310 of this Section. The Division shall implement the provisions of Paragraph (b) of Rule .1310 of this Section for the following watersheds and in the following order:

(1) Facilities in the Neuse River Basin in subbasins 03-04-05, 03-04-07, 03-04-08, 03-04-09, and 03-04-11;

(2) All other facilities in the Neuse River Basin not included in Subparagraph (c)(1) of this Rule;

(3) Facilities in the Tar-Pamlico Basin;

(4) Facilities in the White Oak Basin;

(5) Facilities in subbasin 03-06-22 in the Cape Fear River Basin;

(6) Facilities in subbasin 03-06-19 in the Cape Fear River Basin;

(7) Facilities in the Cape Fear River Basin not included in Subparagraphs (c)(5)-(c)(6) of this Paragraph;

(8) Facilities in the Chowan River Basin;

(9) Facilities in the Lumber River Basin; and

(10) Facilities in the Roanoke, including and downstream of subbasin 03-02-08, and Pasquotank River Basins.

(d) Notwithstanding Paragraph (c) of this Rule, monitoring plans that address the provisions of Paragraph (b) of Rule .1310 of this Section may be required for the following:

(1) For any additional watersheds where animal facilities have caused or contributed to impairments, or predicted to be a cause or contribution, as determined in Basinwide Management Plans or stream classifications pursuant to 15A NCAC Subchapter 02B;

(2) For watersheds in, but outside the order of, Paragraph (c) of this Rule where animal facilities have caused or contributed to impairments, or predicted to be a cause or contribution, as determined in Basinwide Management Plans or stream classifications pursuant to 15A NCAC Subchapter 02B; and

(3) Additional facilities based on the criteria in Rules .1310(b)(7)(D), .1310(b)(7)(E), and .1310(b)(7)(F) of this Section.

1 (e) Nothing in this Rule shall limit the Director in requiring ground water monitoring where water supply wells may
2 be impacted based on the criteria in Paragraph (d) of Rule .1310 of this Section; or where non-compliance with the
3 rules of the Commission or a permit under this Section would increase the likelihood of ground water or surface
4 water loadings.
5
6 *History Note:* *Authority G.S. 143-215.1; 143-215.3(a); 143-215.64*
7 *Eff.*