

ENVIRONMENTAL MANAGEMENT COMMISSION

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NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY

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ANNUAL REPORT TO THE ENVIRONMENTAL REVIEW COMMISSION

Covering the period from January 1, 2022 to November 10, 2022

Per the requirements of General Statute (G.S.) 143B-282(b), the Environmental Management Commission (Commission or EMC) submits this annual report on the EMC's operation, activities, programs, and progress for the period from January 1, 2022 to November 10, 2022. This report is drawn from agendas and actions published by the Commission. For more information, visit the NC Environmental Management Commission webpage.

I. Overview

In 2022, the Environmental Management Commission continued work on several issues of critical importance to the state:

PFAS – Addressing contamination of surface water and groundwater by per- and polyfluoroalkyl compounds continued to be a high priority for research and policy development. The EMC adopted a new rule to enable state certification of laboratories to test for PFAS as a step toward making high quality data available for use in permitting, enforcement and remediation. The EMC will also be looking toward adoption of specific water quality and drinking water standards for PFAS compounds based on work being done at the federal level by EPA and guidance from DEQ's Science Advisory Council.

Other Emerging Contaminants – In response to detection of high levels of 1,4-dioxane (a human carcinogen) in waters downstream of the City of Greensboro's wastewater system, the EMC directed further investigation by DEQ's Division of Water Resources in 2021. Increased water quality monitoring led to identification in 2022 of the likely industrial source of the toxin and measures to eliminate the discharge. The EMC also adopted a numerical water quality standard for 1,4-dioxane based on an existing narrative water quality standard for toxic

substances. That rule has not yet gone into effect due to an objection by the Rules Review Commission, but the narrative standard will continue to protect state drinking water sources.

Nutrient pollution – Excess nutrient loading continues to be a challenge across the state; excess nutrients particularly affect water quality in lakes, reservoirs, and estuaries. The EMC took the first step toward addressing nutrient impairment in High Rock Lake by adopting a site-specific chlorophyll-a standard for the lake. The next step will be development of a nutrient management plan to meet the standard. The Division of Water Resources has initiated a public involvement process to inform development of that plan.

The EMC has also focused on the impact of nutrients and sediment on submerged aquatic vegetation (SAV) in Albemarle Sound. SAV provides critical aquatic habitat and can be endangered by excess nutrients and loss of water clarity. DEQ's Science Advisory Council reported to the EMC on development of a water clarity standard for those waters. The EMC has asked the Division of Water Resources to come back to the EMC with a proposed rule based on the work of the Council and additional feedback on implementation of the proposed standard.

Air Quality and Climate – In 2020, Clean Air North Carolina and the N.C. Coastal Federation petitioned the EMC to adopt a rule requiring large electric generating units in the state to participate in the Regional Greenhouse Gas Initiative (RGGI) as a means of reducing carbon emissions. RGGI sets goals for reduction of carbon emissions and uses market incentives to encourage electricity generators to meet those goals. The Division of Air Quality has updated the EMC on work toward finalizing a fiscal and regulatory impact analysis of the proposed rule. The EMC will send the draft rule proposed by the petitioners out for public notice and comment once the state budget office has approved analysis of the rule's economic impacts.

II. EMC Actions

Note: Meeting Date Titles in this report are hyperlinks to the full meeting materials.

January 13, 2022 EMC Meeting

Election of Vice-Chair

[Agenda Item 22-01]

The EMC elected Commissioner Margaret Monast to serve as its Vice-Chair.

Approved the Hearing Officer's Report and Adopted Permanent Rules 15A NCAC 02H .1401-1405 "Discharges to Federally Non-Jurisdictional Wetlands and Federally Non-Jurisdictional Classified Surface Waters" and Rule Amendments for 15A NCAC 02H .1301 "Discharges to Isolated Wetlands and Isolated Waters: Purpose and Scope" [Agenda Item 22-02]

The EMC approved the hearing officer's report and adopted permanent rules 15A NCAC 02H .1401-1405 "Discharges to Federally Non-Jurisdictional Wetlands and Federally Non-Jurisdictional Classified Surface Waters" and rule amendments for 15A NCAC 02H .1301 "Discharges to Isolated Wetlands and Isolated Waters: Purpose and Scope." The permanent rules were adopted to replace temporary rules adopted in response to changes in federal jurisdiction under Section 404 of the Clean Water Act. The rules establish state standards for permitting impacts to both isolated waters/wetlands and other waters/wetlands falling outside federal permitting jurisdiction to provide a path for permitting impacts to those waters/wetlands as required under state law.

March 10, 2022 EMC Meeting

Issued a Declaratory Ruling on the Interpretation of G.S. 143-215.84 in Response to a Petition for Declaratory Ruling by Eagle Transport

[Agenda Item 22-04]

On November 19, 2020, the EMC denied Eagle Transport's request for a declaratory ruling interpreting G.S. 143-215.84 as applied to a spill from an Eagle Transport truck resulting from a traffic accident. On appeal of the EMC decision, the Superior Court ordered the EMC to issue a declaratory ruling on interpretation of the statute as applied to petitioner's fact situation and the declaratory ruling request came back before the EMC in March 2021 for a decision on the merits of petitioner's request. The EMC issued an interpretation that G.S. 143-215.84 makes the person who has control over oil or other hazardous substances immediately prior to the discharge responsible for the required remediation without regard to fault.

The EMC Approved Proceeding to Public Notice and Hearing on Amendments to the Following Rules:

♦ 15A NCAC 02P "Commercial Leaking Petroleum Underground Storage Tank Cleanup Fund". [Agenda Item 22-05]

- ♦ 15A NCAC 13B rules for C&D and MSW landfill facilities. [Agenda Item 22-07]
- ◆ Readoption and amendment of water use registration and allocation rules in 15A NCAC 02E .0400. [Agenda Item 22-09]

The EMC Adopted the Following Rules and Rule Amendments After Public Notice and Comment and Final Approval of the Regulatory Impact Analysis:

- ♦ Revisions to Nitrogen Oxides State Implementation Plan Rules, 15A NCAC 02D .1400. [Agenda Item 22-08]
- ♦ Amendments to 15A NCAC 13B Rule .0832 "General Provisions" for septage management. [Agenda Item 22-06]
- ♦ Re-adoption of the 15A NCAC 02L .0100 "GROUNDWATER CLASSIFICATION AND STANDARDS General Considerations." [Agenda Item 22-10]
- ♦ 2020-2022 Surface Water Triennial Review Amendments. These rules amended select rules in Sections 15A NCAC 2B .0200 and .0300. The rules included a numerical standard for 1,4 dioxane which is a human carcinogen. The EMC did not adopt a site-specific quality standard for bacteria in recreational waters based on E. coli that had been proposed for 19 counties in western North Carolina. (The E. coli standard would have replaced the current fecal coliform standard in those counties.) Instead, the EMC directed DEQ to return to the EMC in May 2022 to present a timeline for development of a statewide recreational criteria for E. coli in Class B waters. [Agenda Item 22-11]

Approval of Rule Text Modifications in Response to a Rules Review Commission Objection.

The EMC approved minor text modifications to 15A NCAC 02L .0202 "Groundwater Quality Standards" in response to a Rules Review Commission objection based on ambiguity. [Agenda Item 22-13]

Denied Petition for Rulemaking Pursuant to North Carolina General Statute § 150B-20 and 15A NCAC 02I .0500 to Remove the Freshwater Chronic Aquatic Life Standard for Silver

[Agenda Item 22-12]

The EMC denied a petition for rulemaking submitted by the North Carolina Water Quality Association pursuant to North Carolina General Statute § 150B-20 and 15A NCAC 02I .0500. The petition for rulemaking proposed to repeal the freshwater chronic aquatic life standard for silver. The EMC concluded that there was insufficient information to support repeal of the standard and noted that the Clean Water Act requires the state to protect aquatic life from the effects of chronic toxicity. The EMC directed DEQ staff to immediately begin doing the work necessary to reexamine the basis for the current chronic silver standard and initiate discussion of potential

amendments to the standard based on that review. The EMC also directed Division of Water Resources staff to work with wastewater systems struggling to comply with the current standard and noted the availability of alternative compliance methods allowed under the water quality rules.

May 12, 2022 EMC Meeting

Approved the Hearing Officer's Report on Proposed Revisions to Title V Rules, 15A NCAC 02Q .0103 and .0500, and Approved the Regulatory Impact Analysis [Agenda Item 22-14]

The EMC approved the hearing officer's report on proposed revisions to Title V Rules, 15A NCAC 02Q .0103 and .0500, and approved the regulatory impact analysis. The rule amendments corrected technical errors in the rules and made other minor revisions necessary to be consistent with federal air quality regulations.

Approved Reappointments of Members to the Water Pollution Control System Operators Certification Commission

[Agenda Item 22-15]

The EMC approved the reappointment of Ms. Martha E. Groom and Mrs. Marchell Adams-David as members of the Water Pollution Control System Operators Certification Commission.

July 14, 2022 EMC Meeting

Approved Proceeding to Public Notice with the Proposed Reclassification of Teer Quarry and a Portion of Eno River in Durham County (Neuse River Basin) to Class WS-IV CA Critical Area

[Agenda Item 22-19]

The EMC approved proceeding to public notice with the proposed reclassification of Teer Quarry and a portion of the Eno River in Durham County (Neuse River Basin) to Class WS-IV CA Critical Area. The City of Durham requested the reclassification to allow use of Teer Quarry as a future drinking water source.

Adopted Rules, Rule Amendments and Approved the Associated Regulatory Impact Analysis for the Following Rules:

- ◆ Amendments to 15A NCAC 02P "Commercial Leaking Petroleum Underground Storage Tank Cleanup Fund". [Agenda Item 22-16]
- ◆ Amendments to 15A NCAC 13B Rules for C&D and MSW Landfill Facilities. [Agenda Item 22-17]
- ◆ Adoption of the High Rock Lake site-specific standard for chlorophyll-a in 15A NCAC 02B .0211. [Agenda Item 22-21]

Deferred Action on Approval of Revised Local Programs for Neuse and Tar-Pamlico New Development Stormwater Implementation

[Agenda Item 22-18]

The EMC deferred action on the request to approve twelve of thirty-eight Revised Local Program drafts for the implementation of the Neuse and Tar-Pamlico New Development Stormwater Rules until the next EMC meeting.

Approved the 2022 Yadkin Pee-Dee Basin Resources Plan

[Action Item 22-20]

The EMC approved the 2022 Yadkin Pee-Dee Basin Resources Plan.

Authorized EMC Counsel to send a letter to the RRC regarding the RRC Objections to EMC Rules 15A NCAC 02B .0208, .02012, .0214, .0215, and .0218; and 15A NCAC 02H .1301, .1401-.1405.

[Agenda Item 22-22]

After deliberating in closed session, the EMC authorized Counsel Philip Reynolds to send a letter to the RRC in response to the RRC's objections to EMC Rules 15A NCAC 02B .0208, .02012, .0214, .0215, and .0218 (water quality standards adopted or amended as part of the Triennial Review) and to Rules 15A NCAC 02H .1301 and .1401-.1405 (standards for waters and wetlands that fall outside federal Clean Water Act permitting jurisdiction).

September 8, 2022 EMC Meeting

Approved Proceeding to Public Hearing on Amendments to 15A NCAC 02D .0516 "Sulfur Dioxide Emissions from Combustion Sources"

[Agenda Item 22-25]

The EMC voted to send proposed amendments to 15A NCAC 2D. 0516 "Sulfur Dioxide Emissions from Combustion Sources" to public notice and hearing with the associated regulatory impact analysis. The rule amendment will not change the air quality standard for sulfur dioxide emissions from these sources (2.3 pounds of sulfur dioxide per million BTUs of heat input). The rule amendments clarify that compliance with the standard cannot be achieved by burning additional fuel for the sole purpose of increasing the BTU inputs.

Approved Proposed Rule Revisions to Correct Errors Introduced During the Rule Readoption Process Part A

[Agenda Item 22-26]

The EMC approved proposed rule revisions Part A to be sent to OAH for codification and publishing to correct typographical errors introduced during the rule readoption process for air quality rules 15A NCAC 02D .0538, .0605, .0608, .0943, .0944, .0945, .0949, .1418, .1709, and .2608.

Approved the 2020-2022 Biennial Report on the Progress in Developing and Implementing Basinwide Water Resources Management Plans to the Environmental Review Commission (ERC)

[Agenda Item 22-27]

The EMC approved the 2020-2022 Biennial Report on the Progress in Developing and Implementing Basinwide Water Resources Management Plans to the Environmental Review Commission (ERC).

Approved the Falls Lake Stage I Existing Development Individual and Joint Compliance Programs

[Agenda Item 22-28]

The EMC approved the Upper Neuse River Basin Association's (UNRBA) Alternative Implementation Approach and the City of Roxboro's individual local program for implementing the Falls Lake Stage I Existing Development Rule Requirements.

Partial Approval of the Neuse and Tar-Pamlico New Development Stormwater Local Programs

[Agenda Item 22-29]

The EMC approved the 13 local programs that DWR recommended for approval to implement the Neuse and Tar-Pamlico New Development Stormwater Requirements. The EMC deferred approval of the 6 local programs DWR identified as needing revisions and returned those to local governments pending the revisions requested by DWR.

Approved the 2024 303(d) Listing and Delisting Methodology

[Agenda Item 22-30]

Section 303(d) of the Clean Water Act requires the state to provide the U.S. Environmental Protection Agency with a list of state waters that have impaired water quality. In preparation for submitting the next impaired waters list in 2024, the EMC approved the methodology to be used in listing impaired waters and delisting waters based on improved water quality.

Approved the 30-day Waiver and Approved Proceeding to Public Notice and Hearing with Proposed Revisions to Laboratory Certification Rule 15A NCAC 02H .0804 and Regulatory Impact Analysis

[Agenda Item 22-31]

The EMC waived the requirement in Article 7, Section 2 of the Commission's by-laws for a 30-day waiting period between committee consideration of a rulemaking matter and EMC rulemaking action. On recommendation of the Water Quality Committee, the EMC then approved proceeding

to public notice and hearing with proposed revisions to Laboratory Certification Rule 15A NCAC 02H .0804 and the associated regulatory impact analysis. The proposed amendments would add organic fluorine and per- and polyfluoroalkyl substances (PFAS) to the list of organic substances DEQ will certify a laboratory to test. State certification for these parameters will be necessary for the test results from municipal, industrial, and commercial laboratories to be used as data for remediation and permitting purposes. Adding the parameters to the lab certification rule does not require any laboratory to provide testing for the parameters; it will just allow state certification of labs that choose to provide the testing.

Responded to RRC Objections to EMC Rules 15A NCAC 02B .0208, .0212, .0214, .0215, and .0218; and 15A NCAC 02H .1301, .1401-.1405 (CLOSED SESSION)
[Agenda Item 22-32]

The EMC authorized its counsel to seek the return of rules 02B .0208, .0212, .0214, .0215, .0216, and .0218, and to undertake all actions necessary to pursue judicial review of the Rules Review Commission's objections to those rules. The rules include a water quality standard for 1,4-dioxane which is a human carcinogen. The Rules Review Commission objection was based on failure to provide a fiscal analysis of the proposed 1,4-dioxane standard even though the EMC provided a fiscal analysis certified by the Office of State Budget and Management as required by the Administrative Procedure Act.

November 10, 2022 EMC Meeting

Approved the Proposed Rule Revisions and Fiscal Note and Approved Proceeding to Public Hearing on the Amendments to Allow Electronic Submittal of Documents [Agenda Item 22-33]

The EMC approved the proposed rule revisions and fiscal note and approved proceeding to public hearing on the Amendments to Allow Electronic Submittal of Documents.

Approved Hearing Officer's Report on Proposed Rule Re-adoptions to 15A NCAC 02E Section .0400 Regulation of Surface Water Transfers [Agenda Item 22-34]

The EMC approved the hearing officer's report on proposed rule re-adoptions to 15A NCAC 02E Section .0400 Regulation of Surface Water Transfers.

III. Other EMC Activity

Water, Wastewater, and Stormwater Infrastructure Funding Opportunities Provided Through the American Rescue Plan Act and the Federal Bipartisan Infrastructure Law [January 13, 2022 EMC Meeting, Agenda Item 22-IF-01]

Jon Risgaard, Division of Water Infrastructure, gave a presentation on the division's programs to provide low interest loans and grants for water and wastewater infrastructure and described the new Viable Utility Program to support struggling systems. The presentation also provided an overview of the unprecedented federal funding for water, wastewater and stormwater infrastructure that the state will receive through the 2021 American Rescue Plan Act and the 2021 Bipartisan Infrastructure Law.

Managing Nutrients in North Carolina: The Progress of the Nutrient Criteria Development Plan and Nutrient Management Strategies in High Rock Lake and the Albemarle Sound [May 12, 2022 EMC Meeting, Agenda Item 22-IF-03]

Under the Nutrient Criteria Development Plan (NCDP) developed in 2014 and renewed in 2019, the Division of Water Resources (DWR) has focused on developing nutrient criteria for three pilot waterbodies representing different types of surface waters: High Rock Lake (Lakes/Reservoirs), Albemarle Sound/Chowan River (Estuaries), and Central Cape Fear River (Rivers/Streams).

High Rock Lake has extensive water quality impairments under the current chlorophyll standard as well as other nutrient response variables of pH and turbidity. State law prohibits increased nutrient loading allocations from permitted wastewater discharges to the lake until a nutrient management strategy has been adopted. As a result of work done under the plan, DWR proposed a site-specific chlorophyll-a standard for High Rock Lake; the EMC approved that standard in July 2022. The next step will be development of the nutrient management strategy necessary to meet the standard. DWR has begun work on a public participation process and anticipates rule adoption in late 2025.

Work related to **Albemarle Sound** has focused in part on protecting submerged aquatic vegetation (SAV) as a critical habitat. DEQ's Scientific Advisory Council has looked at a number of questions regarding water clarity and thresholds for chlorophyll-a and turbidity:

- Will a water quality standard for clarity provide sufficient protection for SAV habitats?
- Are the current numeric North Carolina water quality standards for chlorophyll-a and turbidity (40 mg L-1 and 25 NTU, respectively) capable of achieving clarity requirements for the protection of SAV?
- Are existing assessment methods for North Carolina's current chlorophyll-a and turbidity standards protective for North Carolina's SAV habitats?
- Is the high salinity optical model ready for practical application?

The key conclusions:

- The model for low-salinity SAV environments needs to be recalibrated and that is currently underway.
- Using this bio-optical model, management can be tailored to meet needs of waterbody and watershed because of flexibility to adjust water clarity, turbidity and chlorophyll-a thresholds based on location.

PFAS [May 12, 2022 EMC Meeting, Agenda Item 22-IF-04 and July 14, 2022 EMC Meeting, [Agenda Item 22-IF-0]

PFAS are synthetic chemicals, including per- and poly-fluoroalkyl substances, used in consumer products such as food packaging, stain- and water-repellant fabrics, fire-fighting foam, non-stick products and more. PFAS can persist over long periods of time in water, soil and other media, causing human health and environmental concern. Reproductive, developmental, liver, kidney and immunological effects have been documented.

The U.S. Environmental Protection Agency (EPA) released a PFAS Roadmap in 2021 describing EPA's plan to address PFAS in waters. EPA goals have helped DEQ develop priorities for its work on PFAS. DEQ's Science Advisory Board has focused on a group of approximately 20 PFAS chemicals that are the most prevalent PFAS measured in the state. PFAS specific to the Chemours facility make up half of North Carolina's PFAS data.

Of the 20 most prevalent PFAS in North Carolina, nine (including GenX and 8 legacy compounds) are being studied by EPA as part of the EPA RoadMap. The other 11 represent 10 PFAS compounds covered by the Chemours consent order and one legacy PFAS. EPA has conducted or is in the process of conducting toxicity assessments for the nine PFAS compounds included in the EPA RoadMap, all of which are found in NC. The 11 PFAS compounds specific to NC need toxicity assessments. DEQ has requested the Science Advisory Board to provide guidance and assist in reviewing available scientific literature to support development of water quality standards.

The greatest data need is for a reference dose (RfD) for proposing standards for groundwater (the 15A NCAC 2L rules), surface water (15A NCAC 2B) and drinking water (maximum contaminant levels or MCLs). In addition to the toxicity studies to be conducted under the Chemours consent order, the fish tissue sampling and analysis project planned during summer 2022 in the Middle and Lower Cape Fear River by DEQ/DHHS will provide additional data to assist in deriving RfDs.

On June 15, EPA announced updated, interim lifetime drinking water health advisories for two chemicals: PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulfonate). EPA also released new final drinking water health advisories for PFBS and GenX chemicals. For PFOA and PFOS, EPA replaced lifetime advisories issued in 2016 and updated the levels based on over 400 more recent studies that indicate some negative health effects may occur at water concentrations of PFOA or PFOS that are close to zero. The Interim HAs for PFOA is 0.004 ppt and for PFOS is 0.02 ppt. Analytical methods cannot detect PFOA and PFOS at the level of the interim HAs. Therefore, minimum reporting level of 4 ppt is being used based on instrument measurement and analytical capability.

EPA recommends that if water systems detect PFOA and PFOS, they take steps such as informing residents, monitoring, and examining steps to limit exposure. The lower the levels of PFOA and PFOS, the lower the risk. The interim health advisories are in place until the National Primary Drinking Water regulation for PFAS takes effect next year.

What this means for NC: Unlike other states, NC has data for drinking water, and in 2019, the PFAS Network took and analyzed 380 samples from raw water intakes from public water systems in 97 counties. Based on this limited sampling, 53 North Carolina counties reported levels higher than 4 PPT; DEQ's Division of Water Resources (DWR) is in regular communication with affected counties and water systems regarding the next steps. DWR is developing a sampling and testing protocol for sample collection from the sources above the 4 PPT. In fiscal year 2022, EPA will expand funding for PFAS monitoring in public water systems to include more small drinking water systems. Currently, there is no national regulation of PFAS discharges in industrial wastewater.

Regarding surface water: EPA's key action in 2022 is rulemaking to limit industrial discharges of PFAS and rulemaking to revise National Effluent Limitation Guidelines (ELGs) for categories of industry likely to manufacture PFAS; those include organic chemicals, plastics and synthetic fiber facilities. NC has one facility that manufactures PFAS; data are being reviewed from this facility and will be considered in EPA's development of ELGs. Based on PFAS data, several wastewater systems are discharging greater than 4 PPT and they are voluntarily submitting reports.

Regarding groundwater systems: In the absence of a state groundwater standard, DEQ can establish an interim maximum contaminant level (IMAC) to guide decisions about permitting and groundwater remediation. The IMAC for PFOA was set at 2000 PPT in 2006. There is a request to DEQ to withdraw the current IMAC based on the newly released health goals. This request is under review and DWR will report to EMC regarding its decision. Additionally, DEQ has launched a statewide groundwater monitoring well network with 703 wells and 234 monitoring stations. 217 have been tested, mostly in the lower Cape Fear River Basin, including New Hanover, Brunswick, Pender, Columbus, and Sampson Counties. The network will include Onslow, Duplin, Cumberland, Bladen and Robeson Counties in its monitoring and sampling.

EPA has also established final lifetime drinking water health advisories for GenX Chemicals (hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt) and PFBS (perfluorobutane sulfonic acid and its related compound potassium perfluorobutane sulfonate). GenX chemicals are considered a replacement for PFOA (manufactured by Chemours in NC). PFBS is considered a replacement for PFOS.

For GenX chemicals, the final health advisory is set at 10 ppt. For PFBS, its set at 2,000 ppt. Both are higher (less stringent) than for PFOA and PFOS and are above the level of detection. Chemours has filed a petition for review of the final GenX advisory, including the October 2021 GenX chemicals toxicity assessment, in the US Court of Appeals for the Third Circuit. The Consent Order between DEQ and Chemours requires Chemours to provide water for any households affected by higher than 10 ppt levels of GenX; a response from Chemours received on July 13, 2022 is currently under review. The estimated number of households affected by this new advisory is 1,545.

The PFAS Action Strategy released to the public in June 2022 has three objectives:

- 1. Protect Communities identify, notify and help those affected by PFAS,
- 2. Protect Drinking Water setting regulatory standards, complement federal actions, and
- 3. Clean Up Contamination existing sites and other receptors.

DEQ is also partnering with UNC's Policy Collaboratory to research topics and to address data gaps regarding PFAS. Four fellows from ECU, Duke, NC State and UNC-Chapel Hill will be working with agency staff to reach these common goals over the next year.

Regional Greenhouse Gas Initiative (RGGI) Petition for Rulemaking Update [July 14, 2022 EMC Meeting, Agenda Item 22-IF-06]

In July 2021, the EMC granted a petition for rulemaking by Clean Air North Carolina and the N.C. Coastal Federation that proposed adoption of rules to require electric generating units in North Carolina to participate in the Regional Greenhouse Gas Initiative.

As proposed by the petitioners, the rule covers investor-owned utilities, state and local government utilities, and industrial electric generating units (EGUs) only generating for onsite use based on size of the EGUs.

The program would require payment of an administrative fee based on the RGGI operating budget which is subject to change. Virginia currently has 0.3% of their revenues withheld. The petition rule draft does not address how the administrative fee will be collected and covered. The Division of Air Quality confirmed that any benefit of the RGGI rule will be quantified in the fiscal analysis, but DAQ does not expect RGGI to reduce the cost of complying with North Carolina's House Bill 951 which imposes similar carbon reduction goals through a plan to be implemented by the N.C. Utilities Commission. (HB 951 only applies to investor-owned utilities.)

Executive Order 271 – Advanced Clean Trucks Rule [November 10, 2022 EMC Meeting, Agenda Item 22-IF-07]

On October 25, 2022, Governor Roy Cooper issued Executive Order No. 271 directing DEQ to work with stakeholders to propose to the Environmental Management Commission an Advanced Clean Trucks (ACT) program that would ensure zero-emission trucks and buses are available for purchase in the state. The ACT rule would require manufacturers to sell an increasing percentage of zero emission vehicles (ZEVs) over time while providing flexibility to manufacturers through credits, trading and other features. The sales targets would also drive investment in other zero-emission technologies, including charging infrastructure, and enhance consumer choice.

Numerous tax credits, loans, grants, and incentive programs will be available to North Carolinians through the Infrastructure Investment and Jobs act and the Inflation Reduction Act to support implementation. That money will support a comprehensive strategy for the State to assist automakers, fleet owners, and other partners to grow the MHD (Medium- and Heavy-Duty) ZEV market through investment in charging infrastructure, purchase incentives, workforce development, demonstration projects, technical assistance, and other strategies identified through development of the North Carolina Clean Transportation Plan (led by NCDOT).

The rule-making timeline: draft rule and fiscal note to the EMC's Air Quality Committee for action in May 2023; request EMC approval to proceed to public comment/hearing in July 2023; hearing officer's report to EMC for adoption in November 2023; and potential effective date January 2024.

IV. Nutrient Control Strategies Sections 2, 3, and 4 of S.L. 2005-190 (as amended by S.L. 2006-259, S.L. 2009-486, S.L. 2017-10, and S.L. 2018-5)

Nutrient Control Criteria - Section 2(b) of S.L. 2005-190

EPA requires all states to develop and implement Nutrient Criteria Development Plans to protect surface waters from the impacts of excess nutrients. The North Carolina Division of Water Resources (DWR) and the EPA originally agreed on North Carolina's Nutrient Criteria Development Plan (NCDP) in June 2014. The NCDP was updated in 2019 to incorporate lessons learned, amend criteria development timelines, formally recognize the Criteria Implementation Committee's (CIC) existing role and expand the Albemarle Sound pilot area to include the Chowan River.

The state's Nutrient Criteria Development Plan established an external Scientific Advisory Council (SAC) to assist in the development of nutrient criteria. The SAC consists of 12 members representing complementary scientific backgrounds. The CIC was established to evaluate fiscal and social implications of nutrient criteria.

In 2021, DWR staff and the SAC reviewed clarity criteria in the Chowan River/Albemarle Sound region as requested. A bio-optical model is currently being refined for low-salinity submerged aquatic vegetation (SAV) waters through a partnership with DWR, UNC, and the Albemarle-Pamlico National Estuary Partnership (APNEP). Also, during 2022 DWR and sister divisions, in collaboration with the SAC, developed a draft clarity standard for the protection of SAV, which should be ready for public review in 2023.

Also during 2022, the EMC adopted, and the RRC approved, a site-specific chlorophyll-a standard for High Rock Lake. The standard requires approval by the US Environmental Protection Agency; a decision is expected from EPA in December 2022.

Information on the N.C. Nutrient Criteria Development Plan and advisory groups is available online at: http://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/nutrient-criteria-development-plan.

Falls Lake - Section 3 of S.L. 2005-190

The EMC is required to report its progress in adopting and implementing a nutrient control strategy to reduce excess nutrient loading to the Falls Lake water supply reservoir. Following an extensive stakeholder and rule-making process, the Falls Lake nutrient rules went into effect Jan. 15, 2011, and have been implemented accordingly since. Major reduction actions are being implemented over a 10-year first stage, with additional steps scheduled for a 15-year second stage. In July 2016, the General Assembly passed S.L. 2016-94, calling for an evaluation of the Falls and Jordan nutrient strategies, separating these rules from the rest of the periodic rules re-adoption process, and setting later rulemaking timelines. The legislation called on the University of North Carolina at Chapel Hill to study the Jordan and Falls strategies and report recommendations to guide further

rulemaking to the ERC, EMC and DEQ. The EMC was charged with convening a stakeholder working group to consider the findings of the UNC studies and provide rulemaking input. Most recently, S.L. 2018-5 revised the due dates for the UNC Studies to December 2019 and December 2023 for Jordan and Falls respectively and extended the deadline for initiating Falls rules readoption to December 31, 2024.

During the December 2021 - December 2022 period, DWR staff:

- Participated in the Upper Neuse River Basin Association and UNC Collaboratory's April 2022 Joint Research Symposium that provided updates on the ongoing studies and the reexamination of the Falls Lake Nutrient Management Strategy.
- Reviewed the 2022 Interim Update of the UNC Collaboratory's multi-year Falls Lake study pursuant to Session Law 2016-94 section 14.13(c). The final report is due December 2023.
- Completed review of the UNRBA's Interim Alternative Implementation Approach for Stage I of the Existing Development Rule and presented the Group Compliance Program and local government Individual Local Programs to the Commission for approval in September 2022.
- Continued collaborating with the UNRBA on their reexamination process of the Stage II
 rule requirements. This includes attending monthly path forward committee and
 modeling and regulatory support meetings and providing technical input on the
 UNRBA's efforts to develop new lake, watershed and statistical models for Falls Lake by
 2023 in anticipation of the Falls rules readoption process beginning in 2024.

Jordan Lake - Section 4 of S.L. 2005-190

Section 4 requires the EMC to report on progress toward developing and implementing a nutrient management strategy for reservoirs including Jordan Lake. After a several-year stakeholder process, the Jordan Lake rules went into effect in August 2009. Since then, there have been nine session laws that have revised or delayed the rules. Most recently, S.L. 2018-5 added a lake and watershed modeling component to the Collaboratory Study and extended the deadline for the EMC to initiate rules re-adoption to Dec 31, 2019.

During the December 2021 - December 2022 period, DWR staff:

- Continued working with stakeholders on Nutrient Data Standards workgroup for Stormwater Control Measures (SCM).
- Assisted JLOW and other stakeholders with the development of an initial set of guidelines for nonprofit incorporation.
- Participated in JLOW stakeholder meetings.
- Provided JLOW with appropriate statutes and rules to assist with development of a watershed management plan.
- Researched country wide use of EPA integrated watershed management for potential use in Jordan Lake.
- Contracted further refinements to the UNC-C Jordan Lake model for regulatory application purposes. Refinements include use of additional data for improved calibrations, development of nutrient standards curves for both lake arms, peer review and revision.
- Began nutrient rule conceptual planning and stakeholder outreach planning.

•	Contracted with a third-party neutral facilitation team to lead the JLOW public meetings
	and planning process for a 2023 start date.

V. Closing

This report has been prepared based on the 2022 EMC agendas and meeting minutes. A more detailed description of this information can be found on the EMC website.

To the best of my knowledge the information contained in this report is accurate and complete.

Robin W. Smith Chair, Environmental Management Commission