

2019

**HOUSE
ENVIRONMENT**

MINUTES

Environment Committee 2019-2020

**Chairs: Rep. Pat McElraft
Rep. Larry Yarborough**

**Clerks: Nancy Fox
Leslie Murray**

ENVIRONMENT

House Standing Committee

Chairs



Rep. McElraft



Rep. Yarborough

Vice Chairs



Rep. Harrison



Rep. McGrady

Members



Rep. Alexander



Rep. Clark



Rep. Corbin



Rep. Davis



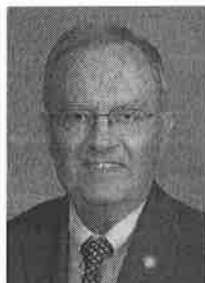
Rep. Dixon



Rep. Goodwin



Rep. K. Hall



Rep. Iler



Rep. Insko



Rep. Kidwell



Rep. Quick



Rep. Russell



Rep. Terry



Rep. B. Turner



Rep. R. Turner



Rep. White

Pursuant to House Rules 26(e) and 26(f), the Chair of the Committee on Rules, Calendar and Operations of the House, the Speaker Pro Tempore, the Majority Leader, and the Deputy Majority Leader are ex officio members of each standing committee and permanent subcommittee with the right to vote. The previous

HOUSE COMMITTEE ON ENVIRONMENT

<u>MEMBER</u>		<u>ASSISTANT</u>	<u>PHONE</u>	<u>OFFICE</u>	<u>SEAT</u>
McElraft, Pat	Chair	Nancy Fox	733-6275	634	9
Yarborough, Larry	Chair	Leslie Murray	715-0850	2219	65
Harrison, Pricey	Vice Chair	Mary Lee	733-5771	1218	56
McGrady, Chuck	Vice Chair	Kimberly Neptune	733-5956	304	27
Alexander, Kelly		Ann Raeford	733-5778	404	23
Clark, Christy		Beth Nichols	733-5828	1319	91
Corbin, Kevin		Cindy Hobbs	733-5859	2215	90
Dixon, Jimmy		Michael Wiggins	715-3021	2226	18
Goodwin, Edward		Richard Blackwelder	733-0010	2217	112
Hall, Kyle		Cameron Dawson	733-5609	529	78
Iler, Frank		Carla Langdon	301-1450	639	14
Insko, Verla		Young Bae	733-7208	503	48
Kidwell, Keith		Joy Albright	733-5881	2213	113
Quick, Amos		Jasmine Quick	733-5902	510	67
Russell, C. Ray		Anna Meadows	733-7727	602	104
Terry, Evelyn		Franklin Terry	733-5777	514	33
Turner, Brian		Tristine Johnson	715-3012	1217	120
Turner, Rena		Barbara Gaiser	733-5661	606	52
White, Donna		Susan Mullins	733-5605	306A2	85
Ted Davis		Andrew Bowers	733-5789	417B	15

House Environment Committee

4-9-2019

[illegible]

House Environment Committee

4-16-2019

[illegible]

4-30-2019

4-30-2019

[illegible]

Subject:

FW: <NCGA> House Environment Committee Meeting Notice for Tuesday, April 30, 2019 at 1:00 PM

Attachments:

Add Meeting to Calendar_LINC_.ics

**NORTH CAROLINA HOUSE OF REPRESENTATIVES
COMMITTEE MEETING NOTICE
AND
BILL SPONSOR NOTIFICATION
2019-2020 SESSION**

You are hereby notified that the **House Committee on Environment** will meet as follows:

DAY & DATE: Tuesday, April 30, 2019

TIME: 1:00 PM

LOCATION: 1228/1327 LB

COMMENTS: Representative McElraft Chairing

The following bills will be considered:

BILL NO.	SHORT TITLE	SPONSOR
<u>HB 479</u>	Study Solar Facility Decommissioning Rqmts.	Representative Dixon
<u>HB 761</u>	Clarify Wastewater Permitting Liability.	Representative Yarborough Representative McElraft Representative Carney Representative Corbin
<u>HB 812</u>	Nutrient Offset Amendments.	Representative White Representative Bell Representative McGrady Representative Jones
<u>HB 824</u>	Wastewater Grant Amendments.	Representative Yarborough

**House Committee on Environment
Tuesday, April 30, 2019, 1:00 PM
1228/1327 Legislative Building**

AGENDA

Welcome and Opening Remarks

Introduction of Pages

Bills

BILL NO.	SHORT TITLE	SPONSOR
HB 812	Nutrient Offset Amendments.	Representative White Representative Bell Representative McGrady Representative Jones Representative Dixon
HB 479	Study Solar Facility Decommissioning Rqmts.	
HB 761	Clarify Wastewater Permitting Liability.	Representative Yarborough Representative McElraft Representative Carney Representative Corbin
HB 824	Wastewater Grant Amendments.	Representative Yarborough
HB 823	NC Managing Environmental Waste Act of 2019.	Representative Warren Representative McGrady Representative Harrison Representative Grange
HB 560	Ban PFAS in Fire Retardant Foam. Discussion only	Representative Harrison Representative Faircloth Representative Hardister Representative McGrady

Presentations

Other Business

Adjournment

**House Committee on Environment
Tuesday, April 30, 2019 at 1:00 PM
Room 1228/1327 of the Legislative Building**

MINUTES

The House Committee on Environment met at 1:00 PM on April 30, 2019 in Room 1228/1327 of the Legislative Building. Representatives McElraft, Yarborough, Harrison, McGrady, Alexander, Clark, Davis, Dixon, Goodwin, Hall, Insko, Kidwell, Quick, Russell, Terry, Turner, and White attended.

Representative Larry Yarborough, Chair, presided.

The following bills were considered:

HB 812 Nutrient Offset Amendments. (Representatives White, Bell, McGrady, Jones)
Favorable and Re-referred. Serial Referral: Rules, Calendar, and Operations of the House

HB 479 ERC Studies/Scope. (Representative Dixon)

Rep. Yarborough recognized Rep Dixon to speak on the bill. Rep. Dixon suggested they consider the 2 amendments first.

Rep. Hall discussed his amendment. Rep. Dixon and Rep. McGrady spoke in favor of the amendment and Rep. McGrady made a motion to adopt the amendment and the amendment was adopted. Rep. McElraft discussed her amendment. Rep. Dixon and Rep. Harrison

spoke in favor of the amendment. Rep. McGrady made a motion was made to adopt the amendment and the amendment was adopted. Rep. Dixon then discussed the PCS. Rep. McElraft made a motion to give a favorable report. The motion carried. Favorable Com Sub, Unfavorable Original Bill and Re-Referred. Serial Referral: Rules

HB 761 Clarify Wastewater Permitting Liability. (Representatives Yarborough, McElraft, Carney, Corbin)

Favorable Com Sub, Unfavorable Original Bill and Re-Referred. Serial Referral: Rules

HB 824 Wastewater Grant Amendments. (Representative Yarborough)

Favorable Com Sub, Unfavorable Original Bill and Re-Referred. Serial Referral: Rules

HB 823 NC Managing Environmental Waste Act of 2019. (Representatives Warren, McGrady, Harrison, Grange)

Rep. Yarborough recognized Rep. Warren to explain the bill. He asked Rep. McElraft to explain her amendment. She stated it just inserts the words non-recyclable

And between the words means and noncompostable. Rep. Warren stated that it is a friendly amendment and he supports it. Rep. McGrady mad a motion to adopt the amendment.

The amendment was adopted. Rep. Warren discussed the PCS. Rep. McElraft made a motion to give a favorable report.

Favorable Com Sub, Unfavorable Original Bill and Re-Referred. Serial Referral: Finance

HB 560 Ban PFAS in Fire Retardant Foam. (Representatives Harrison, Faircloth, Hardister, McGrady)

Discussion Only- Displaced

The meeting adjourned at 1:50 PM.



Representative Larry Yarborough, Chair
Presiding



Leslie Murray, Committee Clerk

Updated #1: Add HB560 Discussion only, add HB823

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<u>HB 761</u>	Clarify Wastewater Permitting Liability.	Representative Yarborough Representative McElraft Representative Carney Representative Corbin
<u>HB 812</u>	Nutrient Offset Amendments.	Representative White Representative Bell Representative McGrady Representative Jones
<u>HB 824</u>	Wastewater Grant Amendments.	Representative Yarborough
<u>HB 560</u>	Ban PFAS in Fire Retardant Foam.	Representative Harrison Representative Faircloth Representative Hardister Representative McGrady
<u>HB 823</u>	NC Managing Environmental Waste Act of 2019.	Representative Warren Representative McGrady Representative Harrison Representative Grange

Respectfully,

Representative Pat McElraft, Co-Chair

Representative Larry Yarborough, Co-Chair

I hereby certify this notice was filed by the committee assistant at the following offices at 3:52 PM on Monday, April 29, 2019.

____ Principal Clerk

____ Reading Clerk – House Chamber

Leslie Murray (Committee Assistant)

**NORTH CAROLINA HOUSE OF REPRESENTATIVES
COMMITTEE MEETING NOTICE
AND
BILL SPONSOR NOTIFICATION
2019-2020 SESSION**

You are hereby notified that the **House Committee on Environment** will meet as follows:

DAY & DATE: Tuesday, April 30, 2019
TIME: 1:00 PM
LOCATION: 1228/1327 LB
COMMENTS: Representative McElraft Chairing

The following bills will be considered:

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<u>HB 479</u>	Study Solar Facility Decommissioning Rqmts.	Representative Dixon
<u>HB 761</u>	Clarify Wastewater Permitting Liability.	Representative Yarborough Representative McElraft Representative Carney Representative Corbin
<u>HB 812</u>	Nutrient Offset Amendments.	Representative White Representative Bell Representative McGrady Representative Jones
<u>HB 824</u>	Wastewater Grant Amendments.	Representative Yarborough

Respectfully,

Representative Pat McElraft, Co-Chair
Representative Larry Yarborough, Co-Chair

I hereby certify this notice was filed by the committee assistant at the following offices at 3:08 PM on Thursday, April 25, 2019.

____ Principal Clerk
____ Reading Clerk – House Chamber

Leslie Murray (Committee Assistant)

**NORTH CAROLINA GENERAL ASSEMBLY
HOUSE OF REPRESENTATIVES**

**ENVIRONMENT COMMITTEE REPORT
Representative Pat McElraft, Co-Chair
Representative Larry Yarborough, Co-Chair**

FAVORABLE AND RE-REFERRED

HB 812 Nutrient Offset Amendments.
Draft Number: None
**Serial Referral: RULES, CALENDAR, AND
OPERATIONS OF THE HOUSE**
Recommended Referral: None
Long Title Amended: No
Floor Manager: White

FAVORABLE COM SUB , UNFAVORABLE ORIGINAL BILL AND RE-REFERRED

HB 479 Study Solar Facility Decommissioning Rqmts.
Draft Number: H479-PCS10617-TQ-10
**Serial Referral: RULES, CALENDAR, AND
OPERATIONS OF THE HOUSE**
Recommended Referral: None
Long Title Amended: Yes
Floor Manager: Dixon

HB 761 Clarify Wastewater Permitting Liability.
Draft Number: H761-PCS30437-BR-10
**Serial Referral: RULES, CALENDAR, AND
OPERATIONS OF THE HOUSE**
Recommended Referral: None
Long Title Amended: Yes
Floor Manager: Yarborough

HB 823 NC Managing Environmental Waste Act of 2019.
Draft Number: H823-PCS30436-RI-11
Serial Referral: FINANCE
Recommended Referral: None
Long Title Amended: No
Floor Manager: Warren

HB 824 Wastewater Grant Amendments.
Draft Number: H824-PCS10615-SB-6
**Serial Referral: RULES, CALENDAR, AND
OPERATIONS OF THE HOUSE**
Recommended Referral: None
Long Title Amended: No
Floor Manager: Yarborough



TOTAL REPORTED: 5



* C M R 3 6 4 - V - 1 *

Gaveled in 1:06

Committee Bill Action Sheet

Date: 4/30/19

Committee: Environment

Chair: McElraft

Bill #: H 812

PCS: YES/NO No Motion made PCS before the Committee _____

Amendments: _____

Serial referral to: Rules

Representative/Senator _____ explained the bill.

Floor Manager: White

Rep. K. Hall motioned for:

☒ Favorable Report

☐ Favorable to PCS, unfavorable to original bill

☐ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO

Joy Hides - Jim Hahue Div. of Resource mgmt DEC
introduced
Harrison & Insko questions

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

1

HOUSE BILL 812

Short Title: Nutrient Offset Amendments.

(Public)

Sponsors: Representatives White, Bell, McGrady, and Jones (Primary Sponsors).

For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Environment, if favorable, Rules, Calendar, and Operations of the House

April 18, 2019

A BILL TO BE ENTITLED
AN ACT TO AMEND AND CLARIFY THE STATUTES GOVERNING THE NUTRIENT
OFFSET CREDIT PROGRAM.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 143-214.26 reads as rewritten:

"§ 143-214.26. Nutrient offset credits.

(a) Nutrient offset credits may be purchased to ~~partially~~ offset nutrient loadings to surface waters as required by the Environmental Management Commission. Nutrient offset credits shall be effective for the duration of the nutrient offset project unless the Department of Environmental Quality finds the credits are effective for a limited time period. Nutrient offset projects authorized under this section shall be all of the following:

(1) ~~Consistent~~ consistent with rules adopted by the Commission for implementation of nutrient management strategies.

(2) ~~Located within the same hydrologic area, as defined in G.S. 143-214.11, in which the associated nutrient loading takes place.~~

(b) A government entity, as defined in G.S. 143-214.11, may purchase nutrient offset credits through either:

(1) Participation in a nutrient offset bank that has been approved by the Department if the Department approves the use of the bank for the required nutrient offsets.

(2) Payment of a nutrient offset fee established by the Department into the Riparian Buffer Restoration Fund established in G.S. 143-214.21.

(c) A party other than a government entity, as defined in G.S. 143-214.11, may purchase nutrient offset credits through either:

(1) Participation in a nutrient offset bank that has been approved by the Department if the Department approves the use of the bank for the required nutrient offsets.

(2) Payment of a nutrient offset fee established by the Department into the Riparian Buffer Restoration Fund established in G.S. 143-214.21. This option is only available to an applicant who demonstrates that the option under subdivision (1) of this subsection is not available.

(d) To offset NPDES-permitted wastewater nutrient sources, credits may only be acquired from nutrient offset projects located in either of the following areas:



- 1 (1) The same hydrologic area. For purposes of this subdivision, "hydrologic area"
2 means an eight-digit cataloging unit designated by the United States
3 Geological Survey.
4 (2) A location that is downstream from the source and upstream from the water
5 body identified for restoration under the applicable TMDL or nutrient
6 management strategy.
7 (e) To offset stormwater or other nutrient sources, credits may only be acquired from an
8 offset project located within the same hydrologic area, as defined in G.S. 143-214.11.
9 (f) The permissible credit sources identified in subsections (d) and (e) of this section may
10 be further limited by rule as necessary to achieve nutrient strategy objectives."
11 **SECTION 2.** This act is effective when it becomes law and applies to nutrient offset
12 credits purchased on or after that date.



HOUSE BILL 812: Nutrient Offset Amendments.

2019-2020 General Assembly

Committee:	House Environment. If favorable, re-refer to Rules, Calendar, and Operations of the House	Date:	April 30, 2019
Introduced by:	Reps. White, Bell, McGrady, Jones	Prepared by:	Jeff Hudson
Analysis of:	First Edition		Committee Counsel

OVERVIEW: *House Bill 812 would allow a wastewater facility to offset its nutrient reduction requirements with nutrient offset credits from a nutrient offset project located downstream from the wastewater facility and upstream from the impaired water body.*

BACKGROUND AND CURRENT LAW:

Nutrient offset mitigation may be required for new or existing development where nutrient reductions are required as part of a nutrient management strategy. There are nutrient management strategies for the Neuse River Basin, the Tar-Pamlico River Basin, the Falls Lake Watershed, and the Jordan Lake Watershed. Nutrient offset credits may be purchased from a private mitigation bank or the Division of Mitigation Services in the Department of Environmental Quality. Generally, nutrient offset credits must be purchased from a nutrient offset project located within the same hydrologic area as the new or existing development for which the nutrient offset credits are sought.

BILL ANALYSIS:

House Bill 812 would amend the nutrient offset credit requirements to allow a wastewater facility to offset its nutrient reduction requirements with nutrient offset credits from a nutrient offset project located downstream from the wastewater facility and upstream from the impaired water body. This could allow the wastewater facility to offset its nutrient reduction requirements with nutrient offset credits from a nutrient offset project located outside of its hydrologic area. House Bill 812 would also authorize the Environmental Management Commission to further limit the permissible nutrient offset projects.

EFFECTIVE DATE:

The act would become effective when it becomes law and apply to nutrient offset credits purchased on or after that date.

Karen Cochrane-Brown
Director



Legislative Analysis
Division
919-733-2578

This bill analysis was prepared by the nonpartisan legislative staff for the use of legislators in their deliberations and does not constitute an official statement of legislative intent.

HARRISON
MC BRIDE



NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 479

AMENDMENT NO. 1
(to be filled in by
Principal Clerk)

H479-ARI-7 [v.2]

Page 1 of 2

Amends Title [NO]
H479-CSTQ-10

Date _____, 2019

Representative K. Hall

1 moves to amend the bill on page 1, line 4, by deleting the word "AND";

2
3 and on page 1, line 6,
4 by rewriting that line to read:

5
6 "MANAGEMENT SYSTEMS, AND WAYS TO OPTIMIZE AND MODERNIZE NORTH
7 CAROLINA'S RECYCLING REQUIREMENTS FOR DISCARDED COMPUTER
8 EQUIPMENT AND TELEVISIONS; AND TO MODIFY THE SCOPE OF THE";

9
10 and on page 3, line 21,
11 by rewriting that line to read:

12
13 "SECTION 5. The Environmental Review Commission shall study ways to optimize
14 and modernize North Carolina's recycling requirements for discarded computer equipment and
15 televisions. In conducting this study, the Commission shall consider (i) the changing waste
16 stream, including trends involving the amount of cathode ray tube televisions discarded and the
17 conditions of associated recycling markets, (ii) the economics of the recycling stream for
18 computer equipment and televisions in light of trends in recycling markets, (iii) impacts of market
19 conditions and the State's recycling policies on computers and televisions on the State's recycling
20 industry, computer and television manufacturers, and local governments, (iv) the current status
21 of North Carolina's recycling system, including cost and financing issues, and options that may
22 be available to reduce costs, (v) opportunities for more efficient and effective recycling systems,
23 and (vi) any other issue the Department deems relevant. The Environmental Review Commission
24 shall report its findings, together with any proposed legislation to modernize the recycling
25 requirements for computers and televisions, to the 2021 Regular Session of the General
26 Assembly upon its convening.

27 SECTION 6. This act is effective when it becomes law."
28
29
30
31
32



* H 4 7 9 - A R I - 7 - V - 2 *

NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 479

H479-ARI-7 [v.2]

AMENDMENT NO. _____
(to be filled in by
Principal Clerk)

Page 2 of 2

SIGNED _____


Amendment Sponsor

SIGNED _____

Committee Chair if Senate Committee Amendment

ADOPTED _____

FAILED _____

TABLED _____

Harrison



NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 479

AMENDMENT NO. 2
(to be filled in by
Principal Clerk)

H479-ASB-5 [v.2]

Page 1 of 3

Amends Title [NO]
H479-CSTQ-10

Date _____, 2019

Representative McElraft

moves to amend the bill on page 1, lines 6 through 8,
by rewriting the lines to read:

"MANAGEMENT SYSTEMS; AND TO MODIFY THE SCOPE OF THE JOINT
LEGISLATIVE OVERSIGHT COMMITTEE ON AGRICULTURE AND NATURAL
AND ECONOMIC RESOURCES TO SPECIFICALLY INCLUDE OVERSIGHT OF
MARINE FISHERIES."

and, on page 2, line 28 through page 3, line 20,
by rewriting the lines to read:

"SECTION 4.(a) G.S. 120-311 reads as rewritten:

"§ 120-311. Purpose and powers of Committee.

(a) The Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources shall examine on a continuing basis the services provided by the departments and agencies set out in this subsection in order to make ongoing recommendations to the General Assembly on ways to improve the effectiveness, efficiency, and quality of State government services. The Committee has the following powers and duties:

- (1) Study the programs, organization, operations, and policies of the following agencies:
 - a. Department of Agriculture and Consumer Services.
 - b. Department of Environmental Quality.
 - c. Department of Natural and Cultural Resources.
 - d. Wildlife Resources Commission.
 - e. Department of Labor.
 - f. Department of Commerce.
 - g. Any other agency under the jurisdiction of the Senate and House of Representatives appropriations committees on agriculture, natural, or economic resources.
- (2) Review compliance of budget actions directed by the General Assembly.
- (3) Monitor expenditures, deviations, and changes made by the agencies set out in subdivision (1) of this subsection to the certified budget.



* H 4 7 9 - A S B - 5 - V - 2 *

NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 479

AMENDMENT NO. _____
(to be filled in by
Principal Clerk)

H479-ASB-5 [v.2]

Page 2 of 3

- 1 (4) Review policy changes as directed by law.
- 2 (5) Receive presentations of reports from agencies directed in the law, including
- 3 audits, studies, and other reports.
- 4 (6) Review any issues that arise during the interim period between sessions of the
- 5 General Assembly and provide a venue for any of these issues to be heard in
- 6 a public setting.
- 7 (7) Monitor the quality of services provided by cultural, natural, and economic
- 8 resources agencies to other agencies and the public.
- 9 (8) Identify opportunities for cultural, natural, and economic resources agencies
- 10 to coordinate and collaborate to eliminate duplicative functions.
- 11 (9) Have presentations and reports on any other matters that the Committee
- 12 considers necessary to fulfill its mandate.
- 13 (10) Exercise legislative oversight over the management of marine fisheries in the
- 14 State by: monitoring and evaluating the programs, policies, and actions of the
- 15 Marine Fisheries Commission and the Division of Marine Fisheries of the
- 16 Department of Environmental Quality; reviewing and evaluating existing and
- 17 proposed statutes and rules affecting the management of marine fisheries;
- 18 monitoring changes in federal law and court decisions affecting the
- 19 management of marine fisheries; monitoring and evaluating marine fisheries
- 20 related industries in the State and studying measures to promote these
- 21 industries; and studying any other matters related to the management of
- 22 marine fisheries in the State that the Commission considers necessary to fulfill
- 23 its mandate.

24 (b) The Committee may make reports to the General Assembly. A report to the General
25 Assembly may contain legislation needed to implement a recommendation of the Committee."

26 **SECTION 4.(b)** G.S. 113-182.1(c1) reads as rewritten:

27 "(c1) The Department shall consult with the regional advisory committees established
28 pursuant to G.S. 143B-289.57(e) regarding the preparation of each Fishery Management Plan.
29 Before submission of a plan for review by ~~the Joint Legislative Commission on Governmental~~
30 ~~Operations, the Joint Legislative Oversight Committee on Agriculture and Natural and Economic~~
31 ~~Resources and the Fiscal Research Division,~~ the Department shall review any comment or
32 recommendation regarding the plan that a regional advisory committee submits to the
33 Department within the time limits established in the Schedule for the development and adoption
34 of Fishery Management Plans established by G.S. 143B-289.52. Before the Commission adopts
35 a management measure to implement a plan, the Commission shall review any comment or
36 recommendation regarding the management measure that a regional advisory committee submits
37 to the Commission.""


NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 479

H479-ASB-5 [v.2]

AMENDMENT NO. _____
(to be filled in by
Principal Clerk)

Page 3 of 3

SIGNED


Amendment Sponsor

SIGNED

Committee Chair if Senate Committee Amendment

ADOPTED

☒

FAILED

TABLED

Committee Bill Action Sheet

Date: 4/30/19

Committee: Environment

Chair: McElraft

Bill #: It 479

PCS: YES/NO YES Motion made PCS before the Committee ✓

Amendments: 2 - passed

Serial referral to: Rules

Representative/Senator _____ explained the bill.

Floor Manager: Dixon

Rep. McElraft motioned for:

☐ Favorable Report

☐ Favorable to PCS, unfavorable to original bill

☒ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019**

H

1

HOUSE BILL 479

Short Title: Study Solar Facility Decommissioning Rqmts.

(Public)

Sponsors: Representative Dixon.

For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Environment, if favorable, Rules, Calendar, and Operations of the House

March 28, 2019

A BILL TO BE ENTITLED

**AN ACT TO REQUIRE THE ENVIRONMENTAL REVIEW COMMISSION TO STUDY
MATTERS ASSOCIATED WITH THE DECOMMISSIONING OF UTILITY-SCALE
SOLAR PROJECTS.**

The General Assembly of North Carolina enacts:

SECTION 1. The Environmental Review Commission shall study matters related to the decommissioning of utility-scale solar projects. The study shall include, at a minimum, analysis of all of the following matters:

- (1) The need for performance bonding to ensure proper decommissioning and closure of existing or future-built solar facilities.
- (2) Whether or not any materials used in utility-scale solar projects, including solar panels and the constituent materials thereof, are classified as hazardous material.
- (3) Whether or not solar panels, including all of the constituent materials thereof, can be safely disposed of in construction and demolition or municipal solid waste landfills.
- (4) The economic feasibility and availability of recycling solar panels.
- (5) Whether or not the land upon which a utility-scale solar project is constructed could be economically placed back into use for agriculture crop production after cessation of the activities of a utility-scale solar project.
- (6) The data-based expected economically productive life cycle of various types of solar panels currently in use.
- (7) A survey of other states' regulatory requirements relating to the decommissioning of utility-scale solar projects.

For purposes of this section, the term "utility-scale solar project" means a ground-mounted photovoltaic (PV), concentrating photovoltaic (CPV), or concentrating solar power (CSP or solar thermal) project directly connected to the electrical transmission grid for sale to wholesale customers. The term includes the solar arrays, accessory buildings, transmission facilities, and any other infrastructure necessary for the operation of the project. The Environmental Review Commission shall report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

SECTION 2. This act is effective when it becomes law.





HOUSE BILL 479: ERC Studies/Scope.

2019-2020 General Assembly

Committee:	House Environment. If favorable, re-refer to Rules, Calendar, and Operations of the House	Date:	April 30, 2019
Introduced by:	Rep. Dixon	Prepared by:	Chris Saunders
Analysis of:	PCS to First Edition H479-CSTQ-10		Committee Counsel

OVERVIEW: *The Proposed Committee Substitute (PCS) to House Bill 479 would (i) direct the Environmental Review Commission to study matters related to the decommissioning of utility-scale solar projects, the solid waste disposal tax, and the process for adoption of general permits for animal waste management systems, and (ii) modify the scope of the Environmental Review Commission (ERC) to include oversight of marine fisheries issues.*

BILL ANALYSIS:

Section 1 of the PCS would direct the ERC to study matters related to the decommissioning of utility-scale solar projects and report its findings, including any legislative proposals to the 2020 Regular Session of the 2019 General Assembly upon its convening. The study must include analysis of the need for performance bonding to ensure proper decommissioning and closure of future-built solar facilities, whether materials used in utility scale solar projects are classified as hazardous material, whether solar panels can be safely disposed of in construction and demolition or municipal solid waste landfills, and other issues.

Section 2 would direct the ERC to study North Carolina's solid waste disposal tax of two dollars (\$2.00) per ton of waste and report its findings, including any legislative proposals to the 2020 Regular Session of the 2019 General Assembly upon its convening. The ERC would be directed to study (i) a history of the annual revenue generated from the tax, and its distribution over time; (ii) a history of expenditures by the Department of Environmental Quality (DEQ) of tax proceeds received to date; (iii) all work completed by DEQ using proceeds of the tax; (iv) plans for future work to be conducted by DEQ using proceeds of the tax; (v) the current balance of the Inactive Hazardous Sites Cleanup Fund; and (vi) any other issue ERC deems relevant.

Section 3 would direct the ERC to study DEQ's process for the development and adoption of general permits for animal waste management systems for swine, cattle, and poultry operations, which must specifically include consideration of whether the general permit process should comply with the Administrative Procedure Act, and report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

Section 4 would grant the ERC legislative oversight authority over the management of marine fisheries in the State, and would direct DEQ to submit Fishery Management Plans adopted by the Marine Fisheries Commission to the ERC, the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources, and the Fiscal Research Division.

Karen Cochrane-Brown
Director



Legislative Analysis
Division
919-733-2578

This bill analysis was prepared by the nonpartisan legislative staff for the use of legislators in their deliberations and does not constitute an official statement of legislative intent.

House PCS 479

Page 2

EFFECTIVE DATE: This act would be effective when it becomes law.

**GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019**

H

D

**HOUSE BILL 479
PROPOSED COMMITTEE SUBSTITUTE H479-CSTQ-10 [v.16]
04/29/2019 08:51:30 AM**

Short Title: ERC Studies/Scope.

(Public)

Sponsors:

Referred to:

March 28, 2019

A BILL TO BE ENTITLED
AN ACT TO REQUIRE THE ENVIRONMENTAL REVIEW COMMISSION TO STUDY
MATTERS ASSOCIATED WITH THE DECOMMISSIONING OF UTILITY-SCALE
SOLAR PROJECTS, THE SOLID WASTE DISPOSAL TAX, AND THE PROCESS FOR
DEVELOPMENT AND ADOPTION OF GENERAL PERMITS FOR ANIMAL WASTE
MANAGEMENT SYSTEMS; AND TO MODIFY THE SCOPE OF THE
ENVIRONMENTAL REVIEW COMMISSION TO INCLUDE OVERSIGHT OF MARINE
FISHERIES.

The General Assembly of North Carolina enacts:

SECTION 1.(a) The Environmental Review Commission shall study matters related to the decommissioning of utility-scale solar projects. The Environmental Review Commission shall report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening. The study shall include, at a minimum, analysis of all of the following matters:

- (1) The need for performance bonding to ensure proper decommissioning and closure of existing or future-built solar facilities.
- (2) Whether or not any materials used in utility-scale solar projects, including solar panels and the constituent materials thereof, are classified as hazardous material.
- (3) Whether or not solar panels, including all of the constituent materials thereof, can be safely disposed of in construction and demolition or municipal solid waste landfills.
- (4) The economic feasibility and availability of recycling solar panels.
- (5) Whether or not the land upon which a utility-scale solar project is constructed could be economically placed back into use for agricultural crop production after cessation of the activities of a utility-scale solar project.
- (6) The data-based expected economically productive life cycle of various types of solar panels currently in use.
- (7) A survey of other states' regulatory requirements relating to the decommissioning of utility-scale solar projects.

SECTION 1.(b) For purposes of this section, the term "utility-scale solar project" means a ground-mounted photovoltaic (PV), concentrating photovoltaic (CPV), or concentrating solar power (CSP or solar thermal) project directly connected to the electrical transmission grid for sale to wholesale customers. The term includes the solar arrays, accessory buildings, transmission facilities, and any other infrastructure necessary for the operation of the project.



SECTION 2. The Environmental Review Commission shall study North Carolina's solid waste disposal tax imposed under Article 5G of Chapter 105 of the General Statutes. In conducting this study, the Commission shall examine (i) a detailed history of the annual revenue generated from the tax, and its distribution over time to the Department of Environmental Quality and local governments; (ii) a detailed history of expenditures by the Department of Environmental Quality of tax proceeds received to date, including to whom and for what purposes the expenditures were made; (iii) all work completed by the Department of Environmental Quality using proceeds of the tax, including detailed information on the location of sites at which work was performed, and a summary of the status of said sites; (iv) plans for future work to be conducted by the Department of Environmental Quality using proceeds of the tax, including detailed information on sites to be addressed, and proposed schedules for work; (v) the current balance of the Inactive Hazardous Sites Cleanup Fund; and (vi) any other issue the Commission deems relevant. The Environmental Review Commission shall report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

SECTION 3. The Environmental Review Commission shall study the Department of Environmental Quality's process for the development and adoption of general permits for animal waste management systems for swine, cattle, and poultry operations. The study shall specifically include consideration of whether the general permit process should comply with the Administrative Procedure Act. In conducting this study, the Environmental Review Commission shall seek input from the Department of Environmental Quality; the Department of Agriculture and Consumer Services; the Office of Administrative Hearings; the College of Agriculture and Life Sciences at North Carolina State University; representatives of swine, cattle, and poultry farmers; and representatives of environmental protection and natural resource conservation groups. The Environmental Review Commission shall report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

SECTION 4.(a) G.S. 120-70.43(a) reads as rewritten:

"(a) The Environmental Review Commission shall have the following powers and duties:

...

(5a) Exercise legislative oversight over the management of marine fisheries in the State by: monitoring and evaluating the programs, policies, and actions of the Marine Fisheries Commission and the Division of Marine Fisheries of the Department of Environmental Quality; reviewing and evaluating existing and proposed statutes and rules affecting the management of marine fisheries; monitoring changes in federal law and court decisions affecting the management of marine fisheries; monitoring and evaluating marine fisheries related industries in the State and studying measures to promote these industries; and studying any other matters related to the management of marine fisheries in the State that the Commission considers necessary to fulfill its mandate.

...."

SECTION 4.(b) G.S. 113-182.1 reads as rewritten:

"§ 113-182.1. Fishery Management Plans.

...

(c1) The Department shall consult with the regional advisory committees established pursuant to G.S. 143B-289.57(e) regarding the preparation of each Fishery Management Plan. Before submission of a plan for review by ~~the Joint Legislative Commission on Governmental Operations, the Environmental Review Commission, the Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources, and the Fiscal Research Division,~~ the Department shall review any comment or recommendation regarding the plan that a regional

1 advisory committee submits to the Department within the time limits established in the Schedule
2 for the development and adoption of Fishery Management Plans established by
3 G.S. 143B-289.52. Before the Commission adopts a management measure to implement a plan,
4 the Commission shall review any comment or recommendation regarding the management
5 measure that a regional advisory committee submits to the Commission.

6
7 (e) The Secretary of Environmental Quality shall monitor progress in the development
8 and adoption of Fishery Management Plans in relation to the Schedule for development and
9 adoption of the plans established by the Marine Fisheries Commission. The Secretary of
10 Environmental Quality shall report to the Environmental Review Commission, the Joint
11 Legislative Oversight Committee on Agriculture and Natural and Economic Resources
12 Resources, and the Fiscal Research Division within 30 days of the completion or substantial
13 revision of each proposed Fishery Management Plan. The Environmental Review Commission
14 and the Joint Legislative Oversight Committee on Agriculture and Natural and Economic
15 Resources shall review each proposed Fishery Management Plan within 30 days of the date the
16 proposed Plan is submitted by the Secretary. The Environmental Review Commission and the
17 Joint Legislative Oversight Committee on Agriculture and Natural and Economic Resources may
18 submit comments and recommendations on the proposed Plan to the Secretary within 30 days of
19 the date the proposed Plan is submitted by the Secretary.

20"

21 **SECTION 5.** This act is effective when it becomes law.

Committee Bill Action Sheet

Date: 4/30/19

Committee: Environment

Chair: McElraft

Bill #: H 761

PCS: YES/NO YES Motion made PCS before the Committee _____

Amendments: _____

Serial referral to: Rules

Representative/Senator Yarborough explained the bill.

Floor Manager: Yarborough

Rep. Dixon motioned for:

☐ Favorable Report

☒ Favorable to PCS, unfavorable to original bill

☐ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

D

HOUSE BILL 761
PROPOSED COMMITTEE SUBSTITUTE H761-CSBR-10 [v.2]
04/24/2019 11:30:40 AM

Short Title: Clarify Wastewater Permitting Liability.

(Public)

Sponsors:

Referred to:

April 16, 2019

- 1 A BILL TO BE ENTITLED
2 AN ACT TO CLARIFY THAT THE DEPARTMENT OF HEALTH AND HUMAN
3 SERVICES, ITS AUTHORIZED AGENTS, AND LOCAL HEALTH DEPARTMENTS
4 SHALL HAVE NO LIABILITY FOR WASTEWATER SYSTEMS FAILURES THAT
5 ARE A DIRECT RESULT OF CERTAIN EVALUATIONS CONDUCTED BY LICENSED
6 SOIL SCIENTISTS AND LICENSED GEOLOGISTS.
7 The General Assembly of North Carolina enacts:
8 **SECTION 1.** G.S. 130A-335(a2) reads as rewritten:
9 "(a2) Evaluations conducted by a licensed soil scientist or a licensed geologist pursuant to
10 subsection (a1) of this section to produce design and construction features for a new proposed
11 wastewater system or a proposed repair project for an existing wastewater system, including the
12 addressing of any special hydrologic conditions that may be required under the applicable rules
13 for an authorization to construct or for permitting, shall be approved by the applicable permitting
14 authorities under G.S. 130A-336 and G.S. 130A-336.1, provided both of the following
15 conditions are met:
16 (1) The ~~evaluation~~-evaluation of soil conditions, site features, or geologic and
17 hydrogeologic conditions satisfies all requirements of this Article. The
18 evaluation shall not cover areas outside the scope of the applicable license.
19 (2) The licensed soil scientist or licensed geologist conducting the evaluation
20 maintains an errors and omissions liability insurance policy issued by an
21 insurer licensed under Chapter 58 of the General Statutes in an amount
22 commensurate with the risk.
23 The Department, the Department's authorized agents, or local health departments shall have
24 no liability for wastewater systems failures that are a direct result of evaluations conducted by a
25 licensed soil scientist or licensed geologist pursuant to this subsection."
26 **SECTION 2.** This act is effective when it becomes law.





HOUSE BILL 761: Clarify Wastewater Permitting Liability.

2019-2020 General Assembly

Committee:	House Environment. If favorable, re-refer to Rules, Calendar, and Operations of the House	Date:	April 30, 2019
Introduced by:	Reps. Yarborough, McElraft, Carney, Corbin	Prepared by:	Kyle Evans
Analysis of:	PCS to First Edition H761-CSBR-10		Committee Counsel

OVERVIEW: *The Proposed Committee Substitute for House Bill 761 would provide that the Department of Health and Human Services, its authorized agents, and local health departments bear no liability for wastewater systems failures that are a direct result of certain wastewater system evaluations conducted by licensed soil scientists or licensed geologists.*

CURRENT LAW: S.L. 2018-114 directed the applicable permitting authorities to approve wastewater system evaluations conducted by a licensed soil scientist or a licensed geologist to produce design and construction features for a new proposed wastewater system or a proposed repair project for an existing wastewater system if:

- The evaluation of soil conditions, site features, or geologic and hydrogeologic conditions satisfies all requirements of the wastewater system laws, and
- The licensed soil scientist or licensed geologist conducting the evaluation maintains an errors and omissions liability insurance policy issued by a licensed insurer in an amount commensurate with the risk.

BILL ANALYSIS: The Proposed Committee Substitute for House Bill 761 would provide that the Department of Health and Human Services, the Department's authorized agents, and local health departments are not liable for wastewater systems failures that are a direct result of evaluations conducted by a licensed soil scientist or licensed geologist.

EFFECTIVE DATE: This act would be effective when it becomes law.

Karen Cochrane-Brown
Director



Legislative Analysis
Division
919-733-2578

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

1

HOUSE BILL 761

Short Title: Clarify Wastewater Permitting Liability.

(Public)

Sponsors: Representatives Yarborough, McElraft, Carney, and Corbin (Primary Sponsors).

For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Environment, if favorable, Rules, Calendar, and Operations of the House

April 16, 2019

A BILL TO BE ENTITLED

AN ACT TO CLARIFY THAT THE LOCAL PERMITTING AUTHORITY BEARS NO
LIABILITY FOR CERTAIN EVALUATIONS AND VERIFICATIONS OF LICENSED
PROFESSIONALS.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 130A-336(b1) reads as rewritten:

"(b1) An improvement permit or authorization for wastewater system construction issued by a local health department from January 1, 2000, to January 1, 2015, which has not been acted on and would have otherwise expired, shall remain valid until January 1, 2020, without penalty, unless there are changes in the hydraulic flows or wastewater characteristics from the original local health department evaluation. Permits are transferrable with ownership of the property. Permits shall retain the site, soil evaluations, and construction conditions of the original permit. Site activities begun or completed pursuant to requirements from the local health department under the original permit, however, shall not be construed to be altered conditions and shall not constitute a basis for refusal of the permit extension. The property owner may contract with a person licensed pursuant to Chapter 89F of the General Statutes as a licensed soil scientist to conduct a site verification to determine whether the conditions of the original permit are unchanged. Written verification by the licensed soil scientist shall be accepted by the local health department, used in lieu of verification by the local health department, and be attached to the permit. The local health department shall have no liability for causes of action arising from wastewater improvements or systems designed, constructed, and installed in reliance upon the site verification performed by a licensed soil scientist under this subsection."

SECTION 2. G.S. 130A-335(a2) reads as rewritten:

"(a2) Evaluations conducted by a licensed soil scientist or a licensed geologist pursuant to subsection (a1) of this section to produce design and construction features for a new proposed wastewater system or a proposed repair project for an existing wastewater system, including the addressing of any special hydrologic conditions that may be required under the applicable rules for an authorization to construct or for permitting, shall be approved by the applicable permitting authorities under G.S. 130A-336 and G.S. 130A-336.1, provided both of the following conditions are met:

- (1) The ~~evaluation~~-evaluation of soil conditions, site features, or geologic and hydrogeologic conditions satisfies all requirements of this Article. The evaluation shall not cover areas outside the scope of the applicable license.
- (2) The licensed soil scientist or licensed geologist conducting the evaluation maintains an errors and omissions liability insurance policy issued by an



insurer licensed under Chapter 58 of the General Statutes in an amount commensurate with the risk.

The applicable permitting authority shall have no liability for causes of action which arise from wastewater systems constructed or repaired based on evaluations conducted by a licensed soil scientist or licensed geologist pursuant to this subsection."

SECTION 3. This act is effective when it becomes law.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

1

HOUSE BILL 823

Short Title: NC Managing Environmental Waste Act of 2019. (Public)

Sponsors: Representatives Warren, McGrady, Harrison, and Grange (Primary Sponsors).
For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Environment, if favorable, Finance, if favorable, Rules, Calendar, and Operations
of the House

April 18, 2019

1 A BILL TO BE ENTITLED
2 AN ACT TO ESTABLISH THE "NC MANAGING ENVIRONMENTAL WASTE ACT OF
3 2019" TO ADDRESS THE ISSUE OF SINGLE-USE PLASTICS BY, AMONG OTHER
4 MEASURES, INCREASING REVENUE DISTRIBUTED TO CITIES AND COUNTIES
5 WITH PROGRAMS TO REDUCE PLASTIC WASTE, ESTABLISHING A PILOT
6 PROGRAM TO REDUCE THE USE OF SINGLE-USE PLASTICS AT
7 STATE-OPERATED FOOD SERVICE FACILITIES, AND DIRECTING THE
8 ENVIRONMENTAL REVIEW COMMISSION TO STUDY THE ISSUE OF SINGLE-USE
9 PLASTICS.

10 The General Assembly of North Carolina enacts:

11 **SECTION 1.** G.S. 105-187.63 reads as rewritten:

12 **"§ 105-187.63. Use of tax proceeds.**

13 From the taxes received pursuant to this Article, the Secretary may retain the costs of
14 collection, not to exceed two hundred twenty-five thousand dollars (\$225,000) a year, as
15 reimbursement to the Department. The Secretary must credit or distribute taxes received pursuant
16 to this Article, less the cost of collection, on a quarterly basis as follows:

- 17 (1) Fifty percent (50%) to the Inactive Hazardous Sites Cleanup Fund established
18 by G.S. 130A-310.11.
- 19 (2) ~~Thirty-seven and one-half percent (37.5%)~~ Thirty-two and one-half percent
20 (32.5%) to cities and counties in the State on a per capita basis, using the most
21 recent annual estimate of population certified by the State Budget Officer.
22 One-half of this amount must be distributed to cities, and one-half of this
23 amount must be distributed to counties. For purposes of this distribution, the
24 population of a county does not include the population of a city located in the
25 county.

26 A city or county is excluded from the distribution under this subdivision
27 if it does not provide solid waste management programs and services and is
28 not responsible by contract for payment for these programs and services. The
29 Department of Environmental Quality must provide the Secretary with a list
30 of the cities and counties that are excluded under this subdivision. The list
31 must be provided by May 15 of each year and applies to distributions made in
32 the fiscal year that begins on July 1 of that year.

33 Funds distributed under this subdivision must be used by a city or county
34 solely for solid waste management programs and services.



(2a) Five percent (5%) to cities and counties in the State that provide plastics recycling services within their jurisdictions. Funds distributed to cities and counties pursuant to this subdivision shall be distributed on a per capita basis, using the most recent annual estimate of population certified by the State Budget Officer. One-half of this amount must be distributed to cities eligible under this subdivision and one-half of this amount must be distributed to counties eligible under this subdivision. For purposes of this distribution, the population of a county does not include the population of a city located in the county.

The Department of Environmental Quality must adopt a rule establishing the criteria for eligibility under this subdivision and must provide the Secretary with a list of the cities and counties that are eligible under this subdivision. The list must be provided by May 15 of each year and applies to distributions made in the fiscal year that begins on July 1 of that year.

Funds distributed under this subdivision must be used by a city or county solely for plastics recycling and single-use plastics reduction programs and services, including for the procurement of alternatives to single-use plastics for packaging and food service ware to be used by the city or county.

(3) Twelve and one-half percent (12.5%) to the General Fund."

SECTION 2.(a) G.S. 143-58.2 reads as rewritten:

"§ 143-58.2. State policy; bid procedures and specifications; identification of products.

...
(d) The Department of Administration, in cooperation with the Division of ~~Pollution Prevention and Environmental Assistance and Customer Service~~ of the Department of ~~Environment and Natural Resources, Environmental Quality~~, shall identify materials and supplies with recycled content that meet appropriate standards for use by State departments, institutions, agencies, community colleges, and local school administrative units.

...
(f) On or before October 1 of each year, each State department, institution, agency, community college, and local school administrative unit authorized to purchase materials and supplies shall report to the Division of ~~Pollution Prevention and Environmental Assistance and Customer Service~~ of the Department of ~~Environment and Natural Resources, Environmental Quality~~, the amounts and types of materials and supplies with recycled content that were purchased during the previous fiscal year and its progress toward reaching the goals under G.S. 143-58.3. On or before December 1 of each year, the Division of ~~Pollution Prevention and Environmental Assistance and Customer Service~~ shall prepare a summary of these reports and submit the summary to the Joint Legislative Commission on Governmental Operations. The summary of these reports shall also be included in the report required by G.S. 130A-309.06(c).

(g) The Department of Administration and the Department of ~~Environment and Natural Resources, Environmental Quality~~ shall develop guidelines for minimum content standards for materials and supplies with recycled content and may recommend appropriate goals in addition to those goals set forth in G.S. 143-58.3, for types of materials and supplies with recycled content to be purchased by the State.

(h) The Secretary of Administration may adopt rules to implement the provisions of this section and G.S. 143-58.3.

(i) On or before October 1 of each year, each State department, institution, agency, community college, and local school administrative unit authorized to purchase materials and supplies shall report to the Division of Environmental Assistance and Customer Service of the Department of Environmental Quality, the amounts and types of materials and supplies with recycled content that were purchased during the previous fiscal year and its progress toward reaching the goals under G.S. 143-58.3. On or before December 1 of each year, the Division of

Environmental Assistance and Customer Service shall prepare a summary of these reports and submit the summary to the Environmental Review Commission. The summary of these reports shall also be included in the report required by G.S. 130A-309.06(c).

(j) On or before October 1 of each year, each State department, institution, agency, community college, and local school administrative unit shall report to the Division of Environmental Assistance and Customer Service of the Department of Environmental Quality, the amounts and types of materials collected for recycling within the department, institution, agency, community college, and local school administrative unit. On or before December 1 of each year, the Division of Environmental Assistance and Customer Service shall prepare a summary of these reports and submit the summary to the Environmental Review Commission. The summary of these reports shall also be included in the report required by G.S. 130A-309.06(c)."

SECTION 2.(b) G.S. 130A-309.06(c) is amended by adding a new subdivision to read:

"(c) The Department shall report to the Environmental Review Commission and the Fiscal Research Division on or before January 15 of each year on the status of solid waste management efforts in the State. The report shall include:

...
(20) A summary of the reports by each State department, institution, agency, community college, and local school administrative unit authorized to purchase materials and supplies detailing the amounts and types of materials and supplies with recycled content that were purchased during the previous fiscal year and the progress toward reaching the goals under G.S. 143-58.3, as required by G.S. 143-58.2(i)."

SECTION 3. The Environmental Review Commission shall study the issue of single-use plastics. In conducting this study, the Commission shall examine all of the following matters:

- (1) The environmental impacts of plastics pollution.
- (2) The State's current requirements for plastics recycling.
- (3) Estimates of the proportionate volume of plastics recycled versus plastics disposed of in landfills in the State.
- (4) Recycling markets and available information on the fate of plastics collected for recycling in the State, including data on plastics used as feedstock for in-State recycling, and national and international markets.
- (5) Pending and enacted legislation in other states to regulate single-use plastics, including bans on single-use plastic packaging and food service ware.
- (6) Current private sector initiatives to reduce plastics pollution and additional financial and market tools that may be employed by private sector interests for this purpose.
- (7) Alternatives to use of single-use plastics for packaging and food service ware.
- (8) Any other issue the Commission deems relevant.

In conducting the study, the Commission shall consult with stakeholders, including the Department of Environmental Quality, the Department of Health and Human Services, the Department of Administration, representatives of the environmental community, the North Carolina Retail Merchants Association, and the North Carolina Beverage Association. The Environmental Review Commission shall report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

SECTION 4.(a) The Legislative Services Officer shall evaluate all opportunities to reduce the use of single-use plastics in food establishments operated by the General Assembly and implement such measures at the earliest date that (i) does not result in disposal, prior to use,

1 of single-use plastics already procured on the date this act becomes law and (ii) does not impair
2 contracts for purchase of such food service ware in effect on the date this act becomes law. The
3 Legislative Services Officer shall issue a preliminary report on implementation of the
4 requirements of this section to the Environmental Review Commission no later than September
5 1, 2019, and shall provide a final report to the Commission no later than March 1, 2020.

6 **SECTION 4.(b)** The Department of Administration shall implement a pilot program
7 to eliminate the sale or provision of food or beverages for consumption on or off the premises,
8 in or with single-use plastics at State agencies or agencies of a political subdivision of the State
9 that is using State funds. In implementing this pilot, the Department shall identify five food
10 service establishments operated by State agencies to implement measures to eliminate single-use
11 plastics at the earliest possible date that (i) does not result in disposal, prior to use, of single-use
12 plastics already procured by the agency on the date this act becomes law and (ii) does not impair
13 contracts for purchase of such food service ware in effect on the date this act becomes law. The
14 Department shall issue a preliminary report on implementation of the requirements of this section
15 to the Environmental Review Commission no later than September 1, 2019, and shall provide a
16 final report to the Commission no later than March 1, 2020.

17 **SECTION 5.** For purposes of Sections 3 and 4 of this act, the term "single-use
18 plastics" means noncompostable single-use disposable products food service ware used by a food
19 provider for serving or transporting prepared, ready-to-consume food or beverages including
20 plastic or polystyrene plates, cups, bowls, trays, utensils, straws, cup lids, and hinged or lidded
21 containers.

22 **SECTION 6.** The Department of Environmental Quality shall adopt rules to
23 implement G.S. 105-187.63(2a), as enacted by Section 1 of this act.

24 **SECTION 7.** Section 1 of this act becomes effective July 1, 2020. The remainder of
25 this act is effective when it becomes law.



NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 823

H823-ABR-15 [v.1]

AMENDMENT NO.
(to be filled in by
Principal Clerk)

Page 1 of 1

Amends Title [NO]
First Edition

Date _____, 2019

~~Representative Varborough~~

McLEAF

1 moves to amend the bill on page 4, line 18, by inserting the words "non-recyclable and" between
2 the words "means" and "noncompostable".
3
4

SIGNED

Amendment Sponsor

SIGNED

Committee Chair if Senate Committee Amendment

ADOPTED

FAILED

TABLED



Committee Bill Action Sheet

Committee: Environment Date: 4/30/19

Chair: McElraft

Bill #: H 823

PCS: YES/NO No Motion made PCS before the Committee _____

Amendments: 1

Serial referral to: Finance

Representative/Senator _____ explained the bill.

Floor Manager: Warren

Rep. _____ motioned for:

☐ Favorable Report

☐ Favorable to PCS, unfavorable to original bill

☒ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO



NORTH CAROLINA GENERAL ASSEMBLY
AMENDMENT
House Bill 823

H823-ABR-15 [v.1]

AMENDMENT NO. _____
(to be filled in by
Principal Clerk)

Page 1 of 1

Amends Title [NO]
First Edition

Date _____, 2019


Representative Yarborough

- 1 moves to amend the bill on page 4, line 18, by inserting the words "non-recyclable and" between
2 the words "means" and "noncompostable".
3
4

SIGNED _____
Amendment Sponsor

SIGNED _____
Committee Chair if Senate Committee Amendment

ADOPTED _____ FAILED _____ TABLED _____



* H 8 2 3 - A B R - 1 5 - V - 1 *



HOUSE BILL 823: NC Managing Environmental Waste Act of 2019.

2019-2020 General Assembly

Committee:	House Environment. If favorable, re-refer to Finance. If favorable, re-refer to Rules, Calendar, and Operations of the House	Date:	April 30, 2019
Introduced by:	Reps. Warren, McGrady, Harrison, Grange	Prepared by:	Jennifer McGinnis
Analysis of:	First Edition		Committee Counsel

OVERVIEW: *House Bill 823 would enact several measures related to single-use plastics as follows:*

- *Reallocate 5% of the revenue generated by the solid waste disposal tax to cities and counties in the State that provide plastics recycling services within their jurisdictions.*
- *Restore certain annual reporting requirements concerning the amounts and types of materials and supplies with recycled content purchased and the amounts and types of materials collected for recycling by State agencies, community colleges, and local school administrative units.*
- *Require the Environmental Review Commission (ERC) to study the issue of single-use plastics.*
- *Require the Legislative Services Officer to evaluate and implement opportunities to reduce the use of single-use plastics in food establishments operated by the General Assembly, and require the Department of Administration to implement a pilot program to eliminate the use of single-use plastics at five food service establishments operated by State agencies.*

BILL ANALYSIS:

Section 1

Under current law, a tax of \$2.00 per ton is imposed on waste disposed of in municipal solid waste and construction and demolition debris landfills. The proceeds of the tax are distributed as follows:

- 50% of the proceeds must be credited to the Inactive Hazardous Sites Cleanup Fund, and the Secretary of the Department of Environmental Quality is required to fund assessment and cleanup of pre-1983 landfills (aka "pre-reg" and "orphan" landfills).
- 37.5% to cities and counties in the State on a per capita basis solely for solid waste management programs and services.
- 12.5% to the General Fund.

Section 1 of the bill would modify the 37.5% allocation currently given to cities and counties for solid waste management programs and services, to divert 5% to cities and counties that provide plastics recycling services within their jurisdictions. Specifically, funds distributed must be used for plastics recycling and single-use plastics reduction programs and services, including for the procurement of alternatives to single-use plastics for packaging and food service ware to be used by the city or county.

Karen Cochrane-Brown
Director



Legislative Analysis
Division
919-733-2578

This bill analysis was prepared by the nonpartisan legislative staff for the use of legislators in their deliberations and does not constitute an official statement of legislative intent.

House Bill 823

Page 2

Section 2 of the bill would restore certain reporting requirements applicable to State agencies, community colleges, and local school administrative units concerning the amounts and types of materials and supplies with recycled content purchased annually by these entities, and the amounts and types of materials collected for recycling annually by these entities, and require the Department of Environmental Quality (DEQ) to report this data to the ERC. These reporting requirements were repealed in 2009 and 2010.

Section 3 of the bill would direct the ERC to study the issue of single-use plastics, including examination of all of the following matters:

- The environmental impacts of plastics pollution.
- The State's current requirements for plastics recycling.
- Estimates of the proportionate volume of plastics recycled versus plastics disposed of in landfills in the State.
- Recycling markets and available information on the fate of plastics collected for recycling in the State, including data on plastics used as feedstock for in-State recycling, and national and international markets.
- Pending and enacted legislation in other states to regulate single-use plastics, including bans on single-use plastic packaging and food service ware.
- Current private sector initiatives to reduce plastics pollution and additional financial and market tools that may be employed by private sector interests for this purpose.
- Alternatives to use of single-use plastics for packaging and food service ware.

The bill would require the ERC to consult with stakeholders in conducting the study, including DEQ, the Department of Health and Human Services, the Department of Administration, representatives of the environmental community, the North Carolina Retail Merchants Association, and the North Carolina Beverage Association. The ERC would be required to report its findings and recommendations, including any legislative proposals, to the 2020 Regular Session of the 2019 General Assembly upon its convening.

Section 4 would require:

- The Legislative Services Officer to evaluate all opportunities to reduce the use of single-use plastics in food establishments operated by the General Assembly and implement such measures at the earliest date that (i) does not result in disposal, prior to use, of single-use plastics already procured on the date this act becomes law and (ii) does not impair contracts for purchase of such food service ware in effect on the date this act becomes law. The Legislative Services Officer must issue a preliminary report on implementation of the requirements of this section to the ERC no later than September 1, 2019, and shall provide a final report to the Commission no later than March 1, 2020.
- The Department of Administration to implement a pilot program to eliminate the sale or provision of food or beverages for consumption on or off the premises, in or with single-use plastics at State agencies or agencies of a political subdivision of the State that is using State funds. In implementing this pilot, the Department must identify five food service establishments operated by State agencies to implement measures to eliminate single-use plastics at the earliest possible date that (i) does not result in disposal, prior to use, of single-use plastics already procured by the agency on the date this act becomes law and (ii) does not impair contracts for purchase of such food service ware in effect on the date this act becomes law. The Department must issue a preliminary report on implementation of the requirements of this section to the ERC no later than

House Bill 823

Page 3

September 1, 2019, and shall provide a final report to the Commission no later than March 1, 2020.

For purposes this act, the term "single-use plastics" means noncompostable single-use disposable products food service ware used by a food provider for serving or transporting prepared, ready-to-consume food or beverages including plastic or polystyrene plates, cups, bowls, trays, utensils, straws, cup lids, and hinged or lidded containers.

BILL ANALYSIS: Section 1 of the bill would become effective July 1, 2020. The remainder of the bill would be effective when it becomes law.

Committee Bill Action Sheet

Date: 4/30/19

Committee: Environment

Chair: McElraft

Bill #: H 560 Discussion Only

PCS: YES/NO YES Motion made PCS before the Committee ✓

Amendments: _____

Serial referral to: Displaced

Representative/Senator Harrison explained the bill.

Floor Manager: Harrison

Rep. _____ motioned for:

☐ Favorable Report

☐ Favorable to PCS, unfavorable to original bill

☐ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

D

HOUSE BILL 560
PROPOSED COMMITTEE SUBSTITUTE H560-CSBRa-13 [v.3]

04/29/2019 02:53:12 PM

Short Title: Ban PFAS in Fire Retardant Foam.

(Public)

Sponsors:

Referred to:

April 4, 2019

A BILL TO BE ENTITLED
AN ACT TO BAN THE USE OF CERTAIN FIRE RETARDANT FOAM CONTAINING
PFAS.

Whereas, firefighting foams made with PFAS chemicals are a significant and
widespread source of drinking water contamination; and

Whereas, PFAS chemicals have been linked to cancer and dysfunction of the immune,
reproductive, and hormonal systems of humans as well as other health problems; and

Whereas, less toxic alternatives to firefighting foam containing PFAS are being used
safely and effectively in other countries; and

Whereas, the FAA Reauthorization Act of 2018 requires that, by October 5, 2021, the
FAA no longer require the use of fluorinated chemicals to meet standards for fire retardant foams
used at commercial airports; Now, therefore,
The General Assembly of North Carolina enacts:

SECTION 1. Article 21A of Chapter 143 of the General Statutes is amended by
adding a new Part to read:

"Part 8. Reduce Use of Certain Toxic Chemicals in Firefighting Activities.

"§ 143-215.104LL. Definitions.

The following definitions apply in this Part:

(1) Class B firefighting foam. – Any foam designed for flammable liquid fires.

(2) Perfluoroalkyl and polyfluoroalkyl substances or PFAS chemicals. – For the
purposes of firefighting agents and firefighting equipment, a class of
fluorinated organic chemicals containing at least one fully fluorinated carbon
atom.

"§ 143-215.104MM. Prohibition of certain firefighting foams for training.

No person may discharge or otherwise use class B firefighting foam that contains
intentionally added PFAS chemicals, unless such discharge or use occurs in fire prevention or in
response to an emergency fire-fighting operation.

"§ 143-215.104NN. Civil penalties.

(a) The Secretary may assess a civil penalty of not more than five thousand dollars
(\$5,000) or, if the violation involves a hazardous waste, as defined in G.S. 130-290, of not more
than twenty-five thousand dollars (\$25,000) against any person who violates the prohibition of
G.S. 143-215.104MM.

(b) If any action or failure to act for which a penalty may be assessed under subsection
(a) of this section is a repeat offense, the Secretary may assess a penalty not to exceed ten
thousand dollars (\$10,000) per occurrence. A penalty for multiple occurrences shall not exceed
two hundred thousand dollars (\$200,000) in any month.



* H 5 6 0 - C S B R A - 1 3 *

1 (c) In determining the amount of the penalty, the Secretary shall consider the factors set
2 out in G.S. 143B-282.1(b). The procedures set out in G.S. 143B-282.1 shall apply to civil penalty
3 assessments that are presented to the Commission for final agency decision.

4 (d) The Secretary shall notify any person assessed a civil penalty for the assessment and
5 the specific reasons therefor by registered or certified mail or by any means authorized by
6 G.S. 1A-1, Rule 4. Contested case petitions shall be filed pursuant to G.S. 150B-23 within 30
7 days of receipt of the notice of assessment.

8 (e) Requests for remission of civil penalties shall be filed with the Secretary. Remission
9 requests shall not be considered unless made within 30 days of receipt of the notice of assessment.
10 Remission requests must be accompanied by a waiver of the right to a contested case hearing
11 pursuant to Chapter 150B of the General Statutes and a stipulation of the facts on which the
12 assessment was based. Consistent with the limitations in G.S. 143B-282.1(c) and (d), remission
13 requests may be resolved by the Secretary and the violator. If the Secretary and the violator are
14 unable to resolve the request, the Secretary shall deliver the remission request and the
15 recommended action to the Committee on Civil Penalty Remissions of the Environmental
16 Management Commission appointed pursuant to G.S. 143B-282.1(c).

17 (f) If any civil penalty has not been paid within 30 days after notice of assessment has
18 been served on the violator, the Secretary shall request the Attorney General to institute a civil
19 action in the superior court of any county in which the violator resides or the violator's principal
20 place of business is located in order to recover the amount of the assessment, unless the violator
21 contests the assessment as provided in subsection (d) of this section or requests remission of the
22 assessment in whole or in part as provided in subsection (e) of this section. If any civil penalty
23 has not been paid within 30 days after the final agency decision or order has been served on the
24 violator, the Secretary shall request the Attorney General to institute a civil action in the superior
25 court of any county in which the violator resides or the violator's principal place of business is
26 located to recover the amount of the assessment. A civil action must be filed within three years
27 of the date the final agency decision or court order was served on the violator."

28 **SECTION 2.** Notwithstanding G.S. 143C-5-2, there is appropriated from the
29 General Fund to the Office of State Fire Marshal within the Department of Insurance the sum of
30 ten thousand dollars (\$10,000) in nonrecurring funds for the 2019-2020 fiscal year to distribute
31 educational materials concerning the use and effect of PFAS chemicals in firefighting foams, as
32 well as educational materials on nonfluorinated foam alternatives, to local fire departments.

33 **SECTION 3.** Section 1 of this act becomes effective July 1, 2020. The remainder of
34 this act is effective when it becomes law.

Committee Bill Action Sheet

Date: 4/30/19

Committee: Environment

Chair: McElraft

Bill #: H 824

PCS: YES/NO YES Motion made PCS before the Committee _____

Amendments: _____

Serial referral to: Rules

Representative/Senator Warborough explained the bill.

Floor Manager: Warborough

Rep. Dixon motioned for:

☐ Favorable Report

☒ Favorable to PCS, unfavorable to original bill

☐ Favorable to new PCS with Amendments rolled in, unfavorable to original bill

☐ Adoption (Conference Report/House Resolution)

☐ Unfavorable Report (recommend not be passed) (Minority report YES/NO)

☐ No vote or Bill sponsor pulled bill from consideration

☐ Concur or NOT Concur (SCS on a House bill)

Vote: _____ (Voice Vote/Show of hands (Division called)/Roll Call)

Speakers _____

Attached Handouts: YES/NO

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

D

HOUSE BILL 824
PROPOSED COMMITTEE SUBSTITUTE H824-CSSB-6 [v.3]
04/24/2019 12:05:36 PM

Short Title: Wastewater Grant Amendments.

(Public)

Sponsors:

Referred to:

April 18, 2019

A BILL TO BE ENTITLED
AN ACT TO AMEND THE PRIORITY CONSIDERATIONS FOR LOANS OR GRANTS
FROM THE WASTEWATER RESERVE OR DRINKING WATER RESERVE.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 159G-23 reads as rewritten:

"§ 159G-23. Priority consideration for loan or grant from Wastewater Reserve or Drinking Water Reserve.

The considerations for priority in this section apply to a loan or grant from the Wastewater Reserve or the Drinking Water Reserve. The Division of Water Infrastructure must consider the following items when evaluating applications:

- (1) Public necessity. – A project that promotes public health and protects the environment, improves a system that is not in compliance with permit requirements or is under orders from the Department, enables a moratorium to be lifted, or replaces failing septic tanks with a wastewater collection system.
- (2) Effect on impaired waters. – A project that improves designated impaired waters of the State, with greater priority given to projects that improve designated impaired waters of the State that serve as a public water supply for a large public water system. For purposes of this subdivision, a large public water system is one serving more than 175,000 service connections.
- (3) Efficiency. – A project that achieves efficiencies in meeting the State's water infrastructure needs or reduces vulnerability to drought consistent with Part 2A of Article 21 and Article 38 of Chapter 143 of the General Statutes by one of the following methods:
 - a. The combination of two or more wastewater or public water systems into a regional wastewater or public water system by merger, consolidation, or another means.
 - b. Conservation or reuse of water, including bulk water reuse facilities and waterlines to supply reuse water for irrigation and other approved uses.
 - c. Construction of an interconnection between water systems intended for use in drought or other water shortage emergency.
 - d. Repair or replacement of leaking waterlines to improve water conservation and efficiency or to prevent contamination.
 - e. Replacement of meters and installation of new metering systems.



* H 8 2 4 - C S S B - 6 *

- (4) Comprehensive land-use plan. – A project that is located in a city or county that has adopted or has taken significant steps to adopt a comprehensive land-use plan under Article 18 of Chapter 153A of the General Statutes or Article 19 of Chapter 160A of the General Statutes. The existence of a plan has more priority than steps taken to adopt a plan, such as adoption of a zoning ordinance. A plan that exceeds the minimum State standards for protection of water resources has higher priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. A land-use plan is not considered a comprehensive land-use plan unless it has provisions that protect existing water uses and ensure compliance with water quality standards and classifications in all waters of the State affected by the plan.
- (5) Flood hazard ordinance. – A project that is located in a city or county that has adopted a flood hazard prevention ordinance under G.S. 143-215.54A. A plan that exceeds the minimum standards under G.S. 143-215.54A for a flood hazard prevention ordinance has higher priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. If no part of the service area of a project is located within the 100-year floodplain, the project has equal consideration under this subdivision as if it were located in a city or county that has adopted a flood hazard prevention ordinance. The most recent maps prepared pursuant to the National Flood Insurance Program or approved by the Department determine whether an area is within the 100-year floodplain.
- (6) Sound management. – A project submitted by a local government unit that has demonstrated a willingness and ability to meet its responsibilities through sound fiscal policies and efficient operation and management.
- (6a) Asset management plan. – A project submitted by a local government unit with more than 1,000 service connections that has developed and is implementing an asset management plan.
- (7) Capital improvement plan. – A project that implements the applicant's capital improvement plan for the wastewater system or public water system it manages, so long as the capital improvement plan sets out the applicant's expected water infrastructure needs for at least 10 years.
- (8) Coastal habitat protection. – A project that implements a recommendation of a Coastal Habitat Protection Plan adopted by the Environmental Management Commission, the Coastal Resources Commission, and the Marine Fisheries Commission pursuant to G.S. 143B-279.8. If no part of the service area of a project is located within a county subject to that Plan, the project has equal priority under this subdivision with a project that receives priority under this subdivision.
- (9) Affordability. – The relative affordability of a project for a community compared to other communities in North Carolina.
- (10) Merger and Regionalization. – A project to provide for the planning of regional public water and wastewater systems, to provide for the orderly coordination of local actions relating to public water and wastewater systems, or to help realize economies of scale in regional public water and wastewater systems through consolidation, management, merger, or interconnection of public water and wastewater systems. If an applicant demonstrates that it is not feasible for the project to include regionalization, the funding agency shall assign the project the same priority under this subdivision as a project that includes regionalization.

- 1 (11) ~~State water supply plan. Improve regional coordination. – A project that~~
2 ~~addresses a potential conflict between local plans or implements a measure in~~
3 ~~which local water supply plans could be better coordinated, as identified in~~
4 ~~the State water supply plan pursuant to G.S. 143-355(m).coordinated.~~
5 (12) Water conservation measures for drought. – A project that includes adoption
6 of water conservation measures by a local government unit that are more
7 stringent than the minimum water conservation measures required pursuant to
8 G.S. 143-355.2.
9 (13) Low-income residents. – A project that is located in an area annexed by a
10 municipality under Article 4A of Chapter 160A of the General Statutes in
11 order to provide water or sewer services to low-income residents.
12 (14) Disproportionate burden to protect water supply of higher-wealth neighboring
13 local government unit. – Wastewater system improvements made by a local
14 government unit in order to protect or preserve the water supply of a
15 neighboring local government unit that has a lower poverty rate, lower utility
16 bills, higher population growth, higher median household incomes, and lower
17 unemployment."

18 **SECTION 2.** This act becomes effective July 1, 2019, and applies to applications
19 for loans or grants from the Wastewater Reserve or the Drinking Water Reserve received by the
20 Division of Water Infrastructure on or after that date.



HOUSE BILL 824: Wastewater Grant Amendments.

2019-2020 General Assembly

Committee:	House Environment. If favorable, re-refer to Rules, Calendar, and Operations of the House	Date:	April 30, 2019
Introduced by:	Rep. Yarborough	Prepared by:	Jeff Hudson
Analysis of:	PCS to First Edition H824-CSSB-6		Committee Counsel

OVERVIEW: *The Proposed Committee Substitute for House Bill 824 would modify the criteria that the Division of Water Infrastructure in the Department of Environmental Quality must consider when evaluating loan and grant applications to the Wastewater Reserve and Drinking Water Reserve in the State Water Infrastructure Fund.*

CURRENT LAW:

The Wastewater Reserve in the State Water Infrastructure Fund receives State funds to be used for loans and grants for wastewater collection systems, wastewater treatment works, stormwater quality projects, and nonpoint source pollution projects. The Drinking Water Reserve in the State Water Infrastructure Fund receives State funds to be used for loans and grants for public water systems.

The Division of Water Infrastructure in the Department of Environment Quality must consider the following items when evaluating loan and grant applications to the Wastewater Reserve or the Drinking Water Reserve: public necessity, effect on impaired waters, efficiency, whether there is a comprehensive land-use plan, whether there is a flood hazard ordinance, sound management, whether there is an asset management plan, whether there is a capital improvement plan, coastal habitat protection, affordability, merger and regionalization, regional coordination, whether there are water conservation measures for drought, and whether low-income residents will be served.

BILL ANALYSIS: The Proposed Committee Substitute for House Bill 824 would make the following changes to the items that much be considered when the loan and grant applications are evaluated:

- Changes the item regarding effects on impaired waters to provide that greater priority be given to projects that improve impaired waters that serve as a public water supply for a public water system that serves more than 175,000 service connections.
- Adds an item to provide consideration of wastewater system improvements made by a local government unit in order to protect or preserve the water supply of a neighboring local government unit that has a lower poverty rate, lower utility bills, higher population growth, higher median household incomes, and lower unemployment.
- Makes technical and conforming changes.

EFFECTIVE DATE: The act would become effective July 1, 2019, and apply to applications for loans or grants received on or after that date.

Karen Cochrane-Brown
Director



Legislative Analysis
Division
919-733-2578

This bill analysis was prepared by the nonpartisan legislative staff for the use of legislators in their deliberations and does not constitute an official statement of legislative intent.

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

H

1

HOUSE BILL 824

Short Title: Wastewater Grant Amendments.

(Public)

Sponsors: Representative Yarborough.

For a complete list of sponsors, refer to the North Carolina General Assembly web site.

Referred to: Environment, if favorable, Rules, Calendar, and Operations of the House

April 18, 2019

A BILL TO BE ENTITLED

AN ACT TO AMEND THE PRIORITY CONSIDERATIONS FOR LOANS OR GRANTS
FROM THE WASTEWATER RESERVE OR DRINKING WATER RESERVE.

The General Assembly of North Carolina enacts:

SECTION 1. G.S. 159G-23 reads as rewritten:

**"§ 159G-23. Priority consideration for loan or grant from Wastewater Reserve or Drinking
Water Reserve.**

The considerations for priority in this section apply to a loan or grant from the Wastewater
Reserve or the Drinking Water Reserve. The Division of Water Infrastructure must consider the
following items when evaluating applications:

- (1) Public necessity. – A project that promotes public health and protects the
environment, improves a system that is not in compliance with permit
requirements or is under orders from the Department, enables a moratorium
to be lifted, or replaces failing septic tanks with a wastewater collection
system.
- (2) Effect on impaired waters. – A project that improves designated impaired
waters of the ~~State~~ State, with greater priority given to projects which improve
designated impaired waters of the State that serve as a public water supply for
a large public water system. For purposes of this subdivision, a large public
water system is one serving more than 500,000 customers.
- (3) Efficiency. – A project that achieves efficiencies in meeting the State's water
infrastructure needs or reduces vulnerability to drought consistent with Part
2A of Article 21 and Article 38 of Chapter 143 of the General Statutes by one
of the following methods:
 - a. The combination of two or more wastewater or public water systems
into a regional wastewater or public water system by merger,
consolidation, or another means.
 - b. Conservation or reuse of water, including bulk water reuse facilities
and waterlines to supply reuse water for irrigation and other approved
uses.
 - c. Construction of an interconnection between water systems intended
for use in drought or other water shortage emergency.
 - d. Repair or replacement of leaking waterlines to improve water
conservation and efficiency or to prevent contamination.
 - e. Replacement of meters and installation of new metering systems.



* H 8 2 4 - V - 1 *

- (4) Comprehensive land-use plan. – A project that is located in a city or county that has adopted or has taken significant steps to adopt a comprehensive land-use plan under Article 18 of Chapter 153A of the General Statutes or Article 19 of Chapter 160A of the General Statutes. The existence of a plan has more priority than steps taken to adopt a plan, such as adoption of a zoning ordinance. A plan that exceeds the minimum State standards for protection of water resources has higher priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. A land-use plan is not considered a comprehensive land-use plan unless it has provisions that protect existing water uses and ensure compliance with water quality standards and classifications in all waters of the State affected by the plan.
- (5) Flood hazard ordinance. – A project that is located in a city or county that has adopted a flood hazard prevention ordinance under G.S. 143-215.54A. A plan that exceeds the minimum standards under G.S. 143-215.54A for a flood hazard prevention ordinance has higher priority than one that does not. A project is considered to be located in a city or county if it is located in whole or in part in that unit. If no part of the service area of a project is located within the 100-year floodplain, the project has equal consideration under this subdivision as if it were located in a city or county that has adopted a flood hazard prevention ordinance. The most recent maps prepared pursuant to the National Flood Insurance Program or approved by the Department determine whether an area is within the 100-year floodplain.
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- (6a) Asset management plan. – A project submitted by a local government unit with more than 1,000 service connections that has developed and is implementing an asset management plan.
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- (8) Coastal habitat protection. – A project that implements a recommendation of a Coastal Habitat Protection Plan adopted by the Environmental Management Commission, the Coastal Resources Commission, and the Marine Fisheries Commission pursuant to G.S. 143B-279.8. If no part of the service area of a project is located within a county subject to that Plan, the project has equal priority under this subdivision with a project that receives priority under this subdivision.
- (9) Affordability. – The relative affordability of a project for a community compared to other communities in North Carolina.
- (10) Merger and Regionalization. – A project to provide for the planning of regional public water and wastewater systems, to provide for the orderly coordination of local actions relating to public water and wastewater systems, or to help realize economies of scale in regional public water and wastewater systems through consolidation, management, merger, or interconnection of public water and wastewater systems. If an applicant demonstrates that it is not feasible for the project to include regionalization, the funding agency shall assign the project the same priority under this subdivision as a project that includes regionalization.

- 1 (11) ~~State water supply plan. Improve regional coordination. – A project that~~
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6 of water conservation measures by a local government unit that are more
7 stringent than the minimum water conservation measures required pursuant to
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10 municipality under Article 4A of Chapter 160A of the General Statutes in
11 order to provide water or sewer services to low-income residents.
12 (14) Disproportionate burden to protect water supply of higher-wealth neighboring
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14 government unit in order to protect or preserve the water supply of a
15 neighboring local government unit that has a lower poverty rate, lower utility
16 bills, higher population growth, higher median household incomes, and lower
17 unemployment."

18 **SECTION 2.** This act becomes effective July 1, 2019, and applies to applications
19 for loans or grants from the Wastewater Reserve or the Drinking Water Reserve received by the
20 Division on or after that date.

**House Pages
Assignments
Tuesday, April 30, 2019
Session: 9:30 AM**

Committee	Room	Time	Staff	Comments	Member
Regulatory Reform	1228/1327	11:00 AM	Gerald Blohm		Rep. John Fraley
Judiciary I	643	11:30 AM	Jacob Dillman		Rep. Cecil Brockman
			Bronwyn McVeigh		Rep. James L. Boles, Jr.
Commerce and Job Development	1228/1327	12:00 PM	Ethan Brooks		Speaker Tim Moore
Education - K-12	643	1:00 PM	Ethan Brooks		Speaker Tim Moore
			Mya Hernandez		Rep. Tim Moore
Environment	1228/1327	1:00 PM	Jesse Ellis		Speaker Tim Moore
			Rowan Marquez		Speaker Tim Moore

VISITOR REGISTRATION SHEET


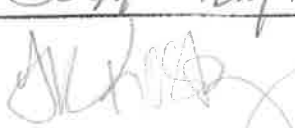
House Committee on Environment

4/30/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
George Smith	NP
Shirley Nynna	DEQ
John Lucey	DEQ
Sarah Collins	NCLM
Alex Miller	AMGA
Cassidy Robertson	AMGA
Canaan Thie	MVA
Tyler Ford	MWC
Katie Hall	DOA
Guarvie	Trude E 
Sam Paylor	NCBID
	AA
Nate Dunning	NCDIT

VISITOR REGISTRATION SHEET

House Committee on Environment

4/30/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
Cassie Gavia	Sema Chris
Alfre Wimberley	NCCW
Brooks Rainey Pearson	SELC
MM Asbill	SELC
Bess McLanhorn	Davidson student
Kara Hodum	SELC
Tom VITAGLIONE	NC CHILD
Julie Robinson	NCSEA
J. White	API
Haywood P. HARRIS	LOWER NEUSE RIVER BASIN ASSO.
Steve Tedder	Tedder & Co Consulting

VISITOR REGISTRATION SHEET

House Committee on Environment
Name of Committee

4/30/2019

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME

FIRM OR AGENCY AND ADDRESS

Bob Lamm	DEQ
John Payne	Restoration Sx
Richard Hamilton	NCWF
Tim Gostwick	NCWF
Marley Fulk	NCWF
Dan Holm	TCF
Linda Culpepper	DEQ
Jim Hawkes	DEQ
Rich Gannon	DEQ
Charlotte Jesnech	DEQ
Joy Hiles	DEQ

VISITOR REGISTRATION SHEET

House Committee on Environment

4/30/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME

FIRM OR AGENCY AND ADDRESS

Amy McConkey	NC Beverage Assoc.
Angie Mailer	NC Port
Tiffany Gladney	NC Rural Center
Andy Ell	NCPM
DANIEL BERN	Thompson Street P
SHAYLON JONES	Novo Nordisk
Sarah McQuillan	Karros Gas Affairs
Resha Fortson	SEALINK
Cammie Harl	MULTI
Josh Lanier	CSH
Jon Warr	Order Price
Laura Gunter	NCSIO

VISITOR REGISTRATION SHEET

House Committee on Environment

4/30/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME

FIRM OR AGENCY AND ADDRESS

Drew Ball	Environment NC
Doug Lassiter	NCSTA
Glen Skinner	NC Fisheries Assoc.
JERRY SCHILL	NC Fisheries Assoc.
Tim M... /	NC HBA
Stuart W... /	NC HBA
A.B. Smiled	Ward, Inc
Will Morgan	MFS
Preston H... /	NCMA
TOM BEAN	EDF, NCSEA
Whitney Christensen	Ward & Smith

VISITOR REGISTRATION SHEET

House Committee on Environment

4/30/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME	FIRM OR AGENCY AND ADDRESS
Will Colpepper	MVH
Paul Sherman	AKFB
Ann Fullbright	Brightway Strategies
Sallie James	Governor's office
Sarah Patterson	WM
Peter Raabe	American Rivers
Kirsten Miller	JSC
Jackson Stancil	JSC
Marissa Turner	TSS
Joe Lanier	TSS
Lindsey Dowling	TSS

Nancy Thompson

John Hatcher

Elizabeth Robinson

Weyerhaeuser

NC Forestry Assn.

Marant

Committee Sergeants at Arms

NAME OF COMMITTEE Enviroment

DATE: April 30, 2019 Room: 1228/1327

House Sgt-At Arms:

1. Name: Joe Crook
2. Name: Glen Wall
3. Name: Will Crocker
4. Name: Dean Marshbourne
5. Name:

Senate Sgt-At Arms:

1. Name:
2. Name:
3. Name:
4. Name:
5. Name:

**NORTH CAROLINA HOUSE OF REPRESENTATIVES
COMMITTEE MEETING NOTICE
AND
BILL SPONSOR NOTIFICATION
2019-2020 SESSION**

You are hereby notified that the **House Committee on Environment** will meet as follows:

DAY & DATE: Tuesday, April 16, 2019
TIME: 1:00 PM
LOCATION: 423 LOB
COMMENTS: Rep. Yarborough, presiding

Topic: Update from the Department of Environmental Quality on its implementation of Sections 13.1(m) through (q) of S.L. 2018-5 (Funds to the Department of Environmental Quality) and other regulatory efforts related to per and poly fluoroalkyl substances (PFAS)

Respectfully,

Representative Pat McElraft, Co-Chair
Representative Larry Yarborough, Co-Chair

I hereby certify this notice was filed by the committee assistant at the following offices at 10:55 AM on Thursday, April 11, 2019.

____ Principal Clerk
____ Reading Clerk – House Chamber

Nancy Fox (Committee Assistant)

House Environment

April 16, 2019, 1:00 P.M.
Room 423 Legislative Office Building
Raleigh, North Carolina

1. Call to order
Representative Yarborough, presiding
2. Introductory remarks by Cochairs
Representative Yarborough
Representative McElraft
3. Update from the Department of Environmental Quality on its implementation of Sections 13.1(m) through (q) of S.L. 2018-5 (Funds to the Department of Environmental Quality) and other regulatory efforts related to per- and poly-fluoroalkyl substances (PFAS)
Sheila Holman, Assistant Secretary for Environment
Department of Environmental Quality
4. Questions and Committee discussion
5. Adjourn

**House Committee on Environment
Tuesday, April 16, 2019 at 1:00 PM
Room 423 of the Legislative Office Building**

MINUTES

The House Committee on Environment met at 1:00 PM on April 16, 2019 in Room 423 of the Legislative Office Building. Representatives McElraft, Yarborough, Harrison, Clark, Dixon, Hall, Insko, Russell, Terry, B. Turner, and Davis attended.

Representative Larry Yarborough, Chair, presided.

The meeting was called to order and the Chair welcomed everyone for attending. Pages and sergeant-at-arms were noticed and thanked for their service to the General Assembly.

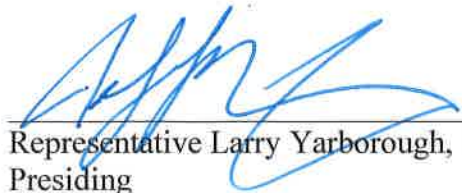
The Chair introduced Sheila Holman, Assistant Secretary for the Environment (DEQ) to give a presentation on an update from the Department of Environmental Quality on its implementation of Sections 13.1(m) through (q) of S.L. 2018-5 (Funds to the Department of Environmental Quality) and other regulatory efforts related to per- and poly-fluoroalkyl substances (PFAS). Attachment #1

Discussion carried over from April 9, 2019 meeting on what's in the water and where did it come from, along with discussion on current sampling, wastewater sampling analysis, rainwater network across the state, and water treatment system pilot study.

Questions were asked by Rep. Dixon, Davis, Harrison, with Yarborough making the closing comments.

See Attachment #1 for presentation by Sheila Holman.

There being no further business, the meeting adjourned at 1:50 PM.


Representative Larry Yarborough, Chair
Presiding

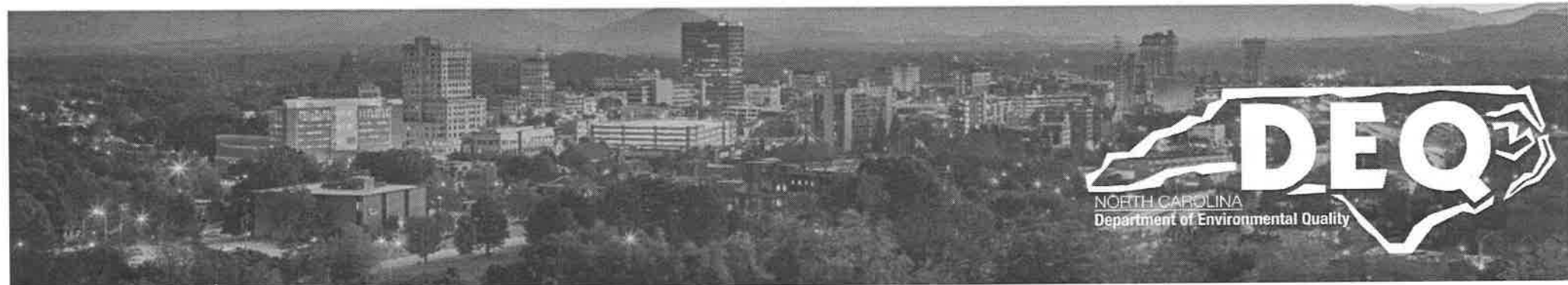

Nancy Fox, Committee Clerk

#/



April 16, 2019

**Department of Environmental Quality
Presentation to the House Environment Committee**



PFAS History

- June 8, 2017 – Star News Report on GenX
- June 21, 2017 – Chemours Announces Voluntary Diversion of Wastewater Containing GenX
- August 2017 – DWM Tests Groundwater Wells on Facility Property
- Sept. 5, 2017 – DWR Issues 60-day Notice of Intent to Suspend NPDES Permit
- Sept. 6, 2017 – DWM Issues NOV & Intent to Assess Civil Penalty for Groundwater Violation and Begins Sampling of Private Drinking Wells near Facility
- Sept. 8, 2017 – Partial Consent Order, Bladen County Superior Court
- October 2017 – DAQ Begins Work on Air Deposition
- Oct. 24, 2017 – DWR Lifted Sept. 5, 2017 Intention to Suspend NPDES Permit
- Nov. 13, 2017 – DWR Issues NOV & Intent to Assess Civil Penalty related to release on Oct. 6, 2017
- Nov. 16, 2017 – DWR Issues Notice of Partial Suspension and 60-Day Notice of Intent to Partially Revoke NPDES Permit, with Effective Date of Suspension November 30, 2017



PFAS History

- January 2018 – DAQ Begins Wet Deposition Monitoring Near Facility
- April 6, 2018 – DAQ Issues Notice of Intent to Modify Chemours Air Permit
- April 9, 2018 – DOJ files Amended Complaint and Motion for Preliminary Injunctive Relief
- April 27, 2018 – Chemours Responds to DAQ Notice
- June 11, 2018 – DEQ Files Proposed Order Against Chemours, with a 30-day Public Comment Period
- November 21, 2018 – DEQ Announces Proposed Consent Order with Chemours, Cape Fear Riverwatch, with a 30-day Public Comment Period
- December 21, 2018 – DEQ Extends Public Comment Period to January 7, 2019
- February 20, 2019 – DEQ Announces Final Consent Agreement Signed by the Three Parties
- February 25, 2019 – Judge Douglas Sasser Signs Consent Order, Order is Filed in Bladen County Superior Court
- March 14, 2019 – DAQ Issues Permit for Installation of Thermal Oxidizer



Chemours Consent Agreement

- Three Party Agreement – DEQ, Chemours, Cape Fear Riverwatch
- Comprehensive Agreement
 - Reduce Air Emissions by 99%
 - Address Groundwater Remediation
 - No Discharge of Process Wastewater Until DEQ Issues NPDES Permit With Limits Necessary and Appropriate to Control GenX and Other PFAS
 - Alternative Drinking Water for Affected Well Owners, Including Paying Water Bills or Maintaining Filtration Systems for 20 Years
 - Measure and Analyze Chemours' Contribution to PFAS Contamination at Downstream Public Water Utilities' Raw Water Intakes
 - Analyze PFAS Contamination in River Sediment
 - Notification Requirement to Downstream Public Water Utilities if an Upset Has Potential to Cause Discharge into Cape Fear River of GenX above 140 ppt
 - Remove 99% of Contamination of the Surface Water and Groundwater from an old Outfall
 - Provide an Accelerated Plan to Reduce PFAS Contamination in Cape Fear River



S.L. 2018-5

REQUIRE ESTABLISHMENT OF PERMANENT REPLACEMENT WATER SUPPLIES FOR AFFECTED PARTIES WITH DRINKING WATER WELLS CONTAMINATED BY PER- AND POLY-FLUOROALKYL SUBSTANCES

SECTION 13.1.(d) In order to ensure the expeditious establishment of alternative permanent water supplies for each affected party, in accordance with the requirements of G.S. 143-215.2A, the sum of two million dollars (\$2,000,000) of the funds appropriated in this act to the Division of Water Infrastructure of the Department of Environmental Quality is allocated to provide funding to local governments for necessary expenditures that local governments may incur as a result of activities to connect affected parties to public water supplies pursuant to an order issued under G.S. 143-215.2A. These funds shall be deposited into the PFAS Recovery Fund, which is established within the Department as a special fund. The Department may distribute funds to local governments solely for the purposes of planning, analysis, and surveying of waterline extensions for affected parties subject to an order issued pursuant to G.S. 143-215.2A. No later than 30 days after completion of a local government's activities to connect an affected party to a public water supply pursuant to G.S. 143-215.2A, the Secretary shall deliver a statement of all funds paid from the PFAS Recovery Fund to the local government and the costs expended by the local government for such activities. The Department shall report on activities conducted and funds expended pursuant to this section on a quarterly basis to the Environmental Review Commission, and the Fiscal Research Division, beginning September 1, 2018.



S.L. 2018-5

FUNDS TO THE DEPARTMENT OF ENVIRONMENTAL QUALITY

SECTION 13.1.(m) One million three hundred thousand dollars (\$1,300,000) of the funds appropriated to the Department of Environmental Quality for the 2016-2017 fiscal year and allocated for in situ nutrient management by Section 14.13(e) of S.L. 2016-94, as amended by Section 13.24 of S.L. 2017-57, is reallocated for the purposes described in subsection (o) of this section.

SECTION 13.1.(n) Twenty-five thousand dollars (\$25,000) in nonrecurring funds appropriated to the Rural Economic Development Division of the Department of Commerce for the 2017-2018 fiscal year and provided as a grant-in-aid to the Town of Stedman by subdivision (15) of Section 15.8(b) of S.L. 2017-57 is transferred to the Department of Environmental Quality and allocated for the purposes described in subsection (o) of this section.



S.L. 2018-5

SECTION 13.1.(o) The funds provided to the Department of Environmental Quality by subsections (m) and (n) of this section shall be allocated for the 2018-2019 fiscal year as follows:

- (1) Six hundred thirteen thousand dollars (\$613,000) to the Division of Water Resources for time-limited positions and operations support of water quality sampling and targeted analysis of samples related to per- and poly-fluoroalkyl substances (PFAS), including the chemical known as "GenX" (CAS registry number 62037-80-3 or 13252-13-6), and to purchase supplies for operation of the mass spectrometer acquired pursuant to subsection (q) of this section to perform targeted analysis of water samples related to discharges of PFAS, including GenX.
- (2) Two hundred thousand dollars (\$200,000) to the Division of Water Resources for time-limited positions and operations support to address permitting backlogs.
- (3) Two hundred thirty-two thousand nine hundred fifty dollars (\$232,950) to the Division of Air Quality for sampling and analysis of atmospheric deposition of PFAS, including GenX.
- (4) Two hundred seventy-nine thousand fifty dollars (\$279,050) to the Division of Waste Management for sampling and analysis of PFAS, including GenX, in groundwater wells, soil, and sediment.

SECTION 13.1.(p) Funds reallocated by subsection (o) of this section shall not revert but shall remain available for nonrecurring expenses.



S.L. 2018-5

SECTION 13.1.(o) The funds provided to the Department of Environmental Quality by subsections (m) and (n) of this section shall be allocated for the 2018-2019 fiscal year as follows:

- (1) Six hundred thirteen thousand dollars (\$613,000) to the Division of Water Resources for time-limited positions and operations support of water quality sampling and targeted analysis of samples related to per- and poly-fluoroalkyl substances (PFAS), including the chemical known as "GenX" (CAS registry number 62037-80-3 or 13252-13-6), and to purchase supplies for operation of the mass spectrometer acquired pursuant to subsection (q) of this section to perform targeted analysis of water samples related to discharges of PFAS, including GenX.
- (2) Two hundred thousand dollars (\$200,000) to the Division of Water Resources for time-limited positions and operations support to address permitting backlogs.

Time limited: Engineer and Environmental Specialists for permitting, and Environmental Technician for sampling

Laboratory: Lead Chemist, Chemist to perform emerging compound analysis

Data/GIS: Data management and GIS

Health Evaluation: Toxicologist and Health Risk Consultant

Sampling: Environmental Specialists

Permitting: Engineers and Environmental Specialist



Current Sampling

Division of Water Resources Staff Conduct Weekly Sampling

- The Chemours outfall 002 has two composite samples:
Monday - Thursday and Friday - Sunday
- Drinking water facilities downstream are sampled weekly:
Bladen Bluff
International Paper
NW Brunswick
Pender County
CFPU Sweeney

Ambient Monitoring

- Jordan Lake
- Falls Lake
- Public Water Supply Reservoirs in the Cape Fear,
- New and Watauga River Basins



Water/Wastewater Sample Analysis

Weekly samples

Finished drinking water and Chemours wastewater analyzed by EPA Athens laboratory
September 2017 – December 14, 2018

Weekly samples taken December 21, 2018 – February 28, 2019:

Finished drinking water samples sent to Dr. Knappe's lab for analysis.

Chemours Outfall 002 wastewater samples analyzed by GEL Laboratories and EPA Athens laboratory.

March 4th – Present:

Finished drinking water and Chemours Outfall 002 wastewater samples began sending back to EPA Athens, GA lab for analysis starting March 4th.

- Received analysis on April 10th.

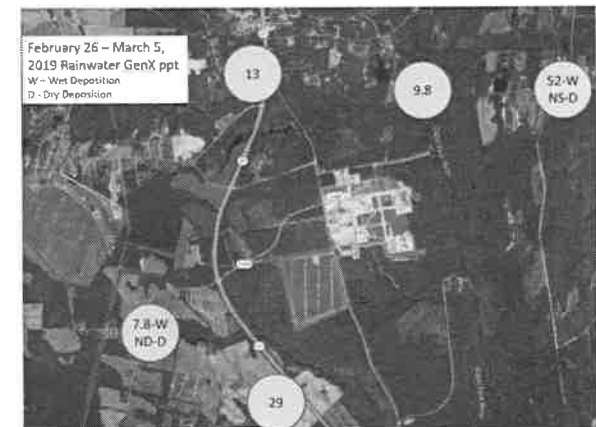


S.L. 2018-5

SECTION 13.1.(o) The funds provided to the Department of Environmental Quality by subsections (m) and (n) of this section shall be allocated for the 2018-2019 fiscal year as follows:

(3) Two hundred thirty-two thousand nine hundred fifty dollars (\$232,950) to the Division of Air Quality for sampling and analysis of atmospheric deposition of PFAS, including GenX.

- Fixed Rainwater collection sites established near Chemours
 - Four sites have been operational since April 2018.
 - A fifth became operational in May 2018.
 - The weekly rainfall total is measured.
- GenX and 28 other PFAS compounds are quantified weekly.
- Both wet and dry deposition are now being measured.



NC DAQ PFAS Rainwater Network

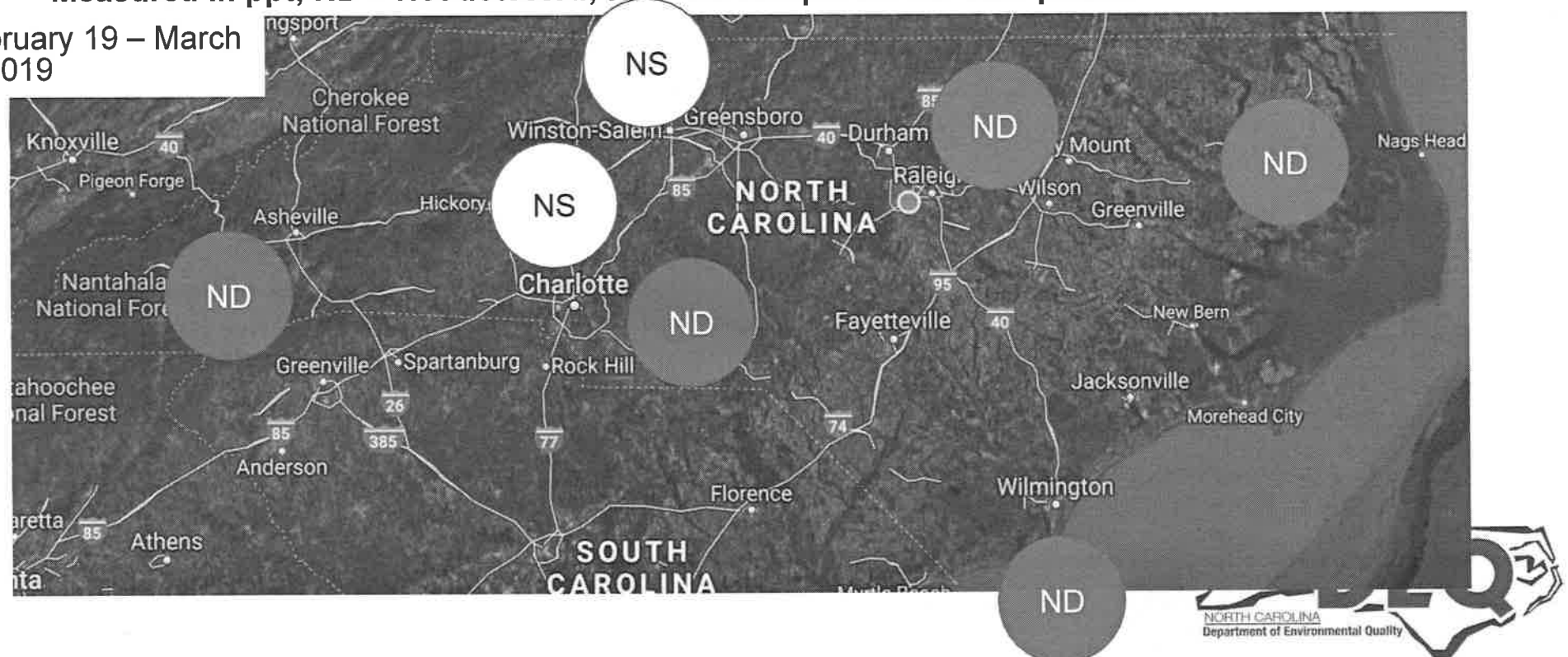
- The DAQ has established a background PFAS rainwater network across the state. Seven sites have been located near our seven regional offices. Weekly sampling equipment, rain gauges and security fencing have been purchased and installed since June 2018. Rainfall, GenX and 28 other PFAS compounds are measured weekly.
- One detection of Perfluoro-n-butanoic acid (PFBA) at 7.4 ng/L during the week of 5/29/18-6/5/18 at the Raleigh sampling location.
- All other samples for 28 analytes have been non-detect.



NC DAQ PFAS Rainwater Network

Background Rainwater PFAS Concentrations
Measured in ppt; ND = Not detected; NS = No sample for the time period

February 19 – March
5, 2019



NC DAQ PFAS Rainwater Network

Annual Rainwater Network Sample Analysis Cost *

- \$225 per sample analysis
 - 20 samples per week
 - 10 from Chemours sites – 5 wet & 5 dry deposition
 - 7 Regional office sites,
 - 3 QA samples
 - Weekly deposition network - \$4500 for analysis and \$170 shipping
 - Annual
 - Sample analysis per year (52 weeks) = \$234,000
 - Shipping per year (52 weeks) = \$8840
 - Total annual cost* = \$242,840
- *cost is calculated only for sample analysis, staff time to prepare, travel, collect, QA, deploy equipment, repair equipment, etc is not included.



NC DAQ PFAS Rainwater Network

- The background rainwater network will assist in determining potential air emissions contributions to surface or groundwater PFAS contamination.
- Future sample analysis will be performed by the Division of Water Resources' mass spectrometer beginning as early as the summer of 2019.
- The DAQ will continue to contract with a third party laboratory in the event there are capacity limitations.



S.L. 2018-5

SECTION 13.1.(o) The funds provided to the Department of Environmental Quality by subsections (m) and (n) of this section shall be allocated for the 2018-2019 fiscal year as follows:

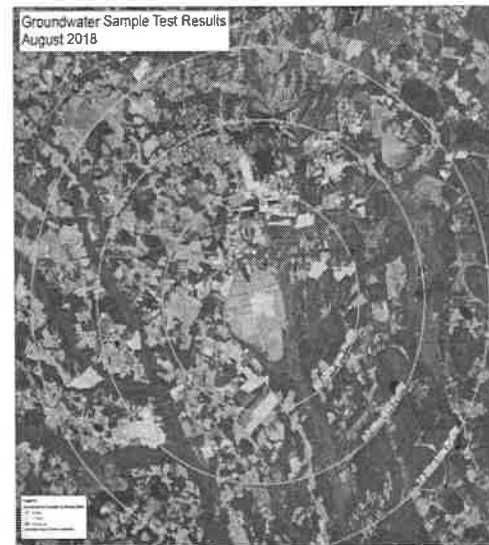
(4) Two hundred seventy-nine thousand fifty dollars (\$279,050) to the Division of Waste Management for sampling and analysis of PFAS, including GenX, in groundwater wells, soil, and sediment.

- Chemours- groundwater
- Department of Defense Facilities
- Assisting Health Departments with PFAS
- Landfill leachate testing for PFAS



Chemours Offsite Groundwater Testing

- Found high levels of PFAS compounds in onsite monitoring wells at Chemours
- Tested private wells on properties adjacent to Chemours first and found high levels
- DEQ has been testing additional private wells around the Chemours plant (180 private wells tested by DEQ)
- Funds from the General Assembly have been utilized for this sampling



Water Treatment System Pilot Study

- DEQ asked Chemours to provide alternate water for 164 homes with greater than 140 ppt GenX in wells. Chemours provided those homes with bottled water.
- Chemours submitted a proposal to DEQ in Jan 2018 to install granular activated carbon (GAC) filtration systems.
- DEQ requested a pilot study to determine:
 - System effectiveness,
 - System maintenance schedule, and
 - Compound breakthrough.

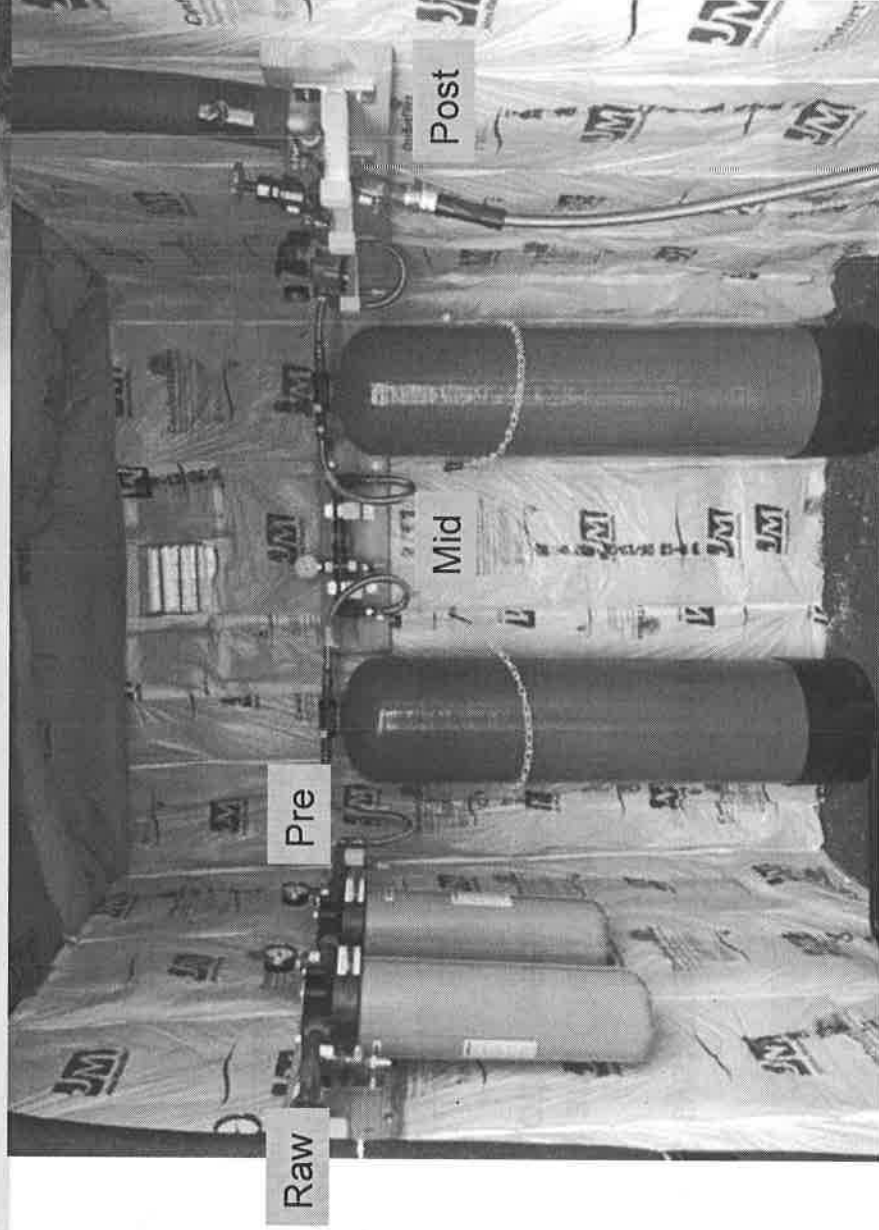


Water Treatment System Pilot Study (cont'd)

- All 6 GAC systems were installed by April 20, 2018.
- Both DEQ and Chemours' third-party consultants have been sampling the filter unit every other week (alternating).
- DEQ is testing for 33 PFAS compounds at 3-4 locations per system.
- DEQ results are posted on the DEQ website:
<https://deq.nc.gov/news/hot-topics/genx-investigation/groundwater>



GAC Filter Systems and Sampling Points



Marine Corps Well Sampling near MCOLF Atlantic

- DEQ has collaborated with the Department of Defense (DOD) on sampling 258 private wells within a one-mile radius of Marine Corps Outlying Landing Field Atlantic.
- DEQ has also participated in the Community Information sessions related to this site.
- Sampling results showed detections of PFOA/PFOS in 32 wells. Two wells exceeded the EPA lifetime health advisory of 70 ppt.
- DOD has provided whole house filters to impacted residents.



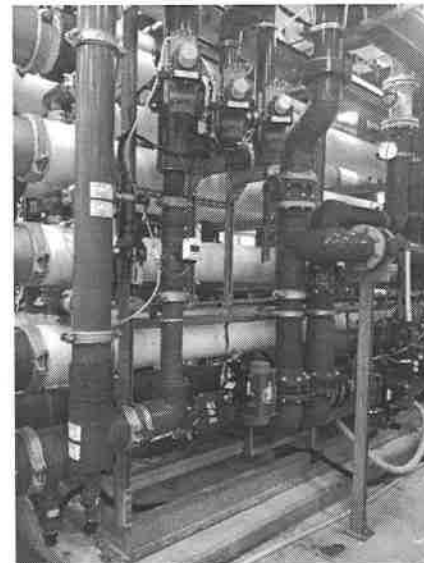
Guilford County and Piedmont Triad International Airport

- DEQ sampled private drinking water wells near Piedmont Triad International Airport and near streams upon the request of Guilford County.
- DEQ provided health recommendations and consultations to impacted well owners.
- DEQ was prepared to provide bottled water to any well owners with detections above EPA health advisory levels (70 ppt PFOA/PFOS).
- Groundwater data showed no PFOA/PFOS levels above 70 ppt.
- DEQ plans to resample wells with detections, and sample additional wells as needed around the airport.



New Hanover County Landfill Leachate Sampling

- DEQ assisted New Hanover County with landfill leachate testing for PFAS.
- Testing included raw and treated leachate.
- DEQ tested for 33 PFAS analytes.
- PFAS detected in raw leachate.
- Non-detect in treated leachate.



S.L. 2018-5

SECTION 13.1.(q) Five hundred thirty-seven thousand dollars (\$537,000) of the funds appropriated by this act for the 2018-2019 fiscal year to the Department of Environmental Senate Bill 99 Session Law 2018-5 Page 127 Quality to purchase a triple quadrupole (QqQ) mass spectrometer shall be used to perform targeted analysis of water samples related to discharges of PFAS, including GenX, that are identified by testing conducted pursuant to subsections (f), (g), (h), and (i) of this section. Funds appropriated by this subsection shall not revert but shall remain available for nonrecurring expenses.



Community Outreach

Communication

- DEQ has held seven public information sessions to date in the communities around the Chemours plant.
- DEQ responds to community concerns.



Transparency

- Post data, enforcement docs, letters, etc. on the GenX webpage: <https://deq.nc.gov/news/hot-topics/genx-investigation>

Ongoing Efforts

- Daily communication with individuals and the community



PFAS Next Steps

- Continued coordination with all stakeholders - EPA, citizens, industry, environmental groups.
- Continue to evaluate areas of potential exposure to PFAS compounds.
- Glean information from other countries (Netherlands) and states (Michigan, Vermont) who are addressing this same subject.
- Advocate for research to keep moving forward on analytical test methods, potential sources and health impacts.
- Continue coordination with the UNC Collaboratory - Use research results to help refine our regulatory program work.
- Continued focus on risk communication for what is known and what is not known about PFAS.



PFAS Next Steps

- Expand water quality sampling along Cape Fear.
- Require testing for PFAS for dischargers into Cape Fear to characterize other contributors.
- Evaluate other areas where PFAS has been deposited into the environment (E.g., landfills, biosolids).
- After complete characterization of Cape Fear, begin work on other river basins in North Carolina.
- Not all PFAS contamination can be traced to a single responsible party, as GenX is to Chemours.



2019 Governor's Budget Request

\$6,055,552 R / \$336,441 NR / 37 FTE

- New staff would be dedicated to emerging compounds specifically, rather than being redirected from normal duties.
- Staff would be located at both DEQ headquarters and across the state at regional offices.
- 37 FTEs are mostly scientists divided between DWR and DWM.
- NR funds would be used acquire a mobile lab to help bring drinking water systems back online faster.



Questions?

Sheila Holman

Assistant Secretary for the Environment
Sheila.Holman@ncdenr.gov



**House Pages
Assignments
Tuesday, April 16, 2019
Session: 11:00 AM**

Committee	Room	Time	Staff	Comments	Member
Education - K-12	643	1:00 PM	Alexander Cook		Rep. Robert T. Reives, II
			Caroline DeMaayer		Rep. Gale Adcock
			Katherine Horner		Rep. Josh Dobson
			Jared Sloan		Rep. Julie von Haefen
Environment	422	1:00 PM	Abigail Hamilton		Rep. Susan C. Fisher
			Christina Hamilton		Rep. Susan C. Fisher
			Tiffanie Lee		Rep. Gale Adcock
			Jenna Schroeder	Speaker	Rep. Tim Moore

Committee Sergeants at Arms

NAME OF COMMITTEE House Committee on Environment

DATE: April 16, 2019 Room: 423/424 LOB

House Sgt-At Arms:

1. Name: Jonas Cherry
2. Name: Rey Cooke
3. Name: David Linthicum
4. Name: Barry Moore
5. Name: _____

Senate Sgt-At Arms:

1. Name: _____
2. Name: _____
3. Name: _____
4. Name: _____
5. Name: _____

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4/16/2019

Name of Committee

Date _____

NAME _____

FIRM OR AGENCY AND ADDRESS

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ENVIRONNEMENT NC



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VISITOR REGISTRATION SHEET

House Committee on Environment

4/16/2019

Name of Committee

Date

VISITORS: PLEASE SIGN IN BELOW AND RETURN TO COMMITTEE CLERK

NAME

FIRM OR AGENCY AND ADDRESS

Peter Rasbe	American Rivers
Jack Henderson	American Rivers
Peter Skillern	Reinvestment Partners
Russ Lamm	PLA
List Song	NCPW
Albre Wimbrey	NECN
Chris Anderson	
Tim Gestwicki	NLWF
Merley Filly	NLWF
Lough Laurence	LA to Rep. Richardson

Nancy Fox (Rep. Pat McElraft)

Subject:

FW: <NCGA> House Environment Committee Meeting Notice for Tuesday, April 09, 2019 at 1:00 PM - UPDATED #1

Attachments:

Add Meeting to Calendar_LINC_.ics

Updated #1: Notice Room Change

**NORTH CAROLINA HOUSE OF REPRESENTATIVES
COMMITTEE MEETING NOTICE
AND
BILL SPONSOR NOTIFICATION
2019-2020 SESSION**

You are hereby notified that the **House Committee on Environment** will meet as follows:

DAY & DATE: Tuesday, April 9, 2019

TIME: 1:00 PM

LOCATION: 423 LOB

COMMENTS: Rep. Pat McElraft, Presiding

Topic: Update from the North Carolina Policy Collaboratory on its implementation of Sections 13.1(f) through (l) of S.L. 2018-5 (Funding to Address Per- and Poly-Fluoroalkyl Substances, Including GenX/Use of Experts and Technology Available in Institutions of Higher Education Located within the State)

Respectfully,

Representative Pat McElraft, Co-Chair

Representative Larry Yarborough, Co-Chair

I hereby certify this notice was filed by the committee assistant at the following offices at 12:53 PM on Monday, April 08, 2019.

____ Principal Clerk

____ Reading Clerk – House Chamber

Nancy Fox (Committee Assistant)

House Environment

April 9, 2019, 1:00 P.M.
Room 423 Legislative Office Building
Raleigh, North Carolina

1. Call to order
Representative McElraft, presiding
2. Introductory remarks by Cochairs
Representative McElraft
Representative Yarborough
3. Review of Sections 13.1(f) through (l) of S.L. 2018-5 (Funding to Address Per- and Poly-Fluoroalkyl Substances, Including GenX/Use of Experts and Technology Available in Institutions of Higher Education Located within the State)
Jennifer McGinnis, Committee Counsel
4. Update from the North Carolina Policy Collaboratory on its implementation of Sections 13.1(f) through (l) of S.L. 2018-5 (Funding to Address Per- and Poly-Fluoroalkyl Substances, Including GenX/Use of Experts and Technology Available in Institutions of Higher Education Located within the State)
Jeff Warren, PhD
Research Director, North Carolina Policy Collaboratory

Wanda Bodnar, Assistant Professor
Department of Environmental Sciences and Engineering
Gillings School of Global Public Health
University of North Carolina at Chapel Hill
5. Questions and Committee discussion
6. Adjourn

**House Committee on Environment
Tuesday, April 9, 2019 at 1:00 PM
Room 423 of the Legislative Office Building**

MINUTES

The House Committee on Environment met at 1:00 PM on April 9, 2019 in Room 423 of the Legislative Office Building. Representatives McElraft, Yarborough, Harrison, McGrady, Alexander, Clark, Dixon, Goodwin, Hall, Iler, Insko, Kidwell, Quick, Russell, Terry, B. Turner, R Turner, and Davis, attended.

Representative Pat McElraft, presided.

The meeting was called to order and the Chair welcomed everyone for attending. Pages and sergeant –at- arms were noticed and thanked for their service.

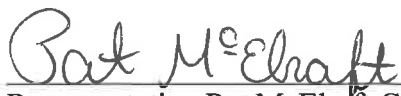
The Chair noticed Dr. Wanda Bodnar, Assistant Professor, from UNCCH, to give the committee an update from the North Carolina Policy Collaboratory on its implementation of Sections 13.1(f) through (l) of S.L. 2018-5 (Funding to Address Per- and Poly-Fluoroalkyl Substances, Including GenX/Use of Experts and Technology Available in Institutions of Higher Education Located within the State)

Some of the topics talked about from the NC Policy Collaboratory included the PFAST Testing Network, develop quantitative models to predict which private wells are most at risk of contamination from discharge of PFAST, including GenX; test performance of relevant technologies in removing such compounds and research for improved water quality sampling and analyses techniques, data, interpretation, and potential mitigation measures that may be necessary, with respect to the discharge of PFSAT, including GenX.

Questions were asked by Rep. Harrison, Dixon, Insko, and were answered by Dr. Wanda Bodnar, Dr. Detlef Knappe (NCSU) Dr. Lee Ferguson (Duke), and Dr. Jamie Dewitt (ECU), and Jeff Warren, PhD, Research Director, North Carolina Policy Collaboratory.

See Attachment #1 for more details. This can also be viewed on the Environment Committee website.

There being no further business, the meeting adjourned at 2:00 PM.


Representative Pat McElraft Chair


Nancy Fox, Committee Clerk

#1

NORTH CAROLINA PER- AND POLYFLUOROALKYL SUBSTANCES TESTING (PFAST) NETWORK

Progress Report #3 submitted to the North Carolina General Assembly
Environmental Review Commission, the NC Department of
Environmental Quality, the NC Department of Health and Human
Services, and the Environmental Protection Agency (Region 4)

April 1, 2019



1.0 INTRODUCTION

The North Carolina General Assembly (NCGA), in the passing of Session Law (SL) 2018-5, Sections 13.1.(g), directed the North Carolina Policy Collaboratory (Collaboratory) to *“identify faculty expertise, technology, and instrumentation, including mass spectrometers, located within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T University, Duke University, and other public and private institutions, and coordinate these faculty and resources to conduct nontargeted analysis for PFAS, including GenX, at all public water supply surface water intakes and one public water supply well selected by each municipal water system that operates groundwater wells for public drinking water supplies as identified by the Department of Environmental Quality, to establish a water quality baseline for all sampling sites. The Collaboratory, in consultation with the participating institutions of higher education, shall establish a protocol for the baseline testing required by this subsection, as well as a protocol for periodic retesting of the municipal intakes and additional public water supply wells.”* The term ‘PFAS’, listed above, refers to Per- and Polyfluoroalkyl Substances and the study is sometimes referred to herein as the PFAST Network (PFAS Testing Network).

In addition to the water sampling identified above, additional study parameters are mandated in Section 13.1.(l), which states, *“The Collaboratory shall identify faculty expertise within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, and use technology and instrumentation existing throughout the institutions to conduct the following research (i) develop quantitative models to predict which private wells are most at risk of contamination from the discharge of PFAS, including GenX; (ii) test the performance of relevant technologies in removing such compounds; and (iii) study the air emissions and atmospheric deposition of PFAS, including GenX. In addition, Collaboratory may, using relevant faculty expertise, technology, and instrumentation existing throughout institutions identified, evaluate other research opportunities and conduct such research for improved water quality sampling and analyses techniques, data interpretation, and potential mitigation measures that may be necessary, with respect to the discharge of PFAS, including GenX.”*

Research to carry out these legislative mandates has commenced, and progress made to date is summarized in this this document which represents the third [quarterly] report. All provisions passed by the NCGA referring to this project are included in Appendix I of this report.

2.0 REPORTING REQUIREMENTS

Section 13.1.(h) of SL 2018-5 states, *“Beginning October 1, 2018, the Collaboratory shall report no less than quarterly to the Environmental Review Commission, the Department of Environmental Quality, and the Department of Health and Human Services on all activities conducted pursuant to this section, including any findings and recommendations for any steps the*

Department of Environmental Quality, the Department of Health and Human Services, the General Assembly, or any other unit of government should take in order to address the impacts of PFAS, including GenX, on surface water and groundwater quality, as well as air quality in the State.” This report fulfills the NCGA requirement for the submission of quarterly progress reports and summarizes the work conducted since the last progress report which was submitted on October 1, 2018. Three additional progress reports will be submitted no later than April 1, 2019, July 1, 2019, and October 1, 2019. The project’s final report will be submitted no later than December 1, 2019.

The NCGA-mandated Per- and Polyfluoroalkyl Substances (PFAS) study (herein referred to as the PFAS Testing Network or PFAST Network) was funded by an appropriation from the NCGA. Section 13.1.(i) of SL 2018-5 states, *“Five million thirteen thousand dollars (\$5,013,000) of the funds appropriated in this act for the 2018-2019 fiscal year to the Board of Governors of The University of North Carolina shall be allocated to the Collaboratory to manage and implement the requirements of this section, which shall include distribution to the Collaboratory and participating institutions of higher education (i) to cover costs incurred as a result of activities conducted pursuant to this section, (ii) for acquisition or modification of essential scientific instruments, or (iii) for payments of costs for sample collection and analysis, training or hiring of research staff and other personnel, method development activities, and data management, including dissemination of relevant data to stakeholders. No overhead shall be taken from these funds from the participating institutions that receive any portion of these funds. Funds appropriated by this section shall not revert but shall remain available for nonrecurring expenses.”*

3.0 QUARTERLY PROGRESS

During 1Q'19, PFAST Network research teams have been collecting and analyzing field samples, conducting laboratory experiments, and interfacing with the public through presentations at a number of meetings. For reference, the PFAST Network organizational structure and team leaders were provided in Appendix II of the January 1, 2019 quarterly report, and the specific aims of the research projects were described in Appendix III. The following accomplishments are highlighted for the period covering Jan.1, 2019 through Mar. 31, 2019:

Overall Program Activities

- PFAST Network scientists submitted the letter provided in Appendix II to the NC Policy Collaboratory and NC General Assembly requesting a 1-year extension of the study and final reporting deadline and supplemental budget to ensure sufficient time for comprehensive analysis and interpretation of non-targeted data and to enable additional sampling of drinking water supply intakes during different seasons.
- In consultation with scientists at the US EPA, the PFAST Network’s synthetic organic chemist devised a synthetic route for 2 PFAS chemical standards (Nafion By-products 1 and 2) and is currently working on a third (Hydro Eve acid).
- The risk communications team has been meeting with representatives of the NC Coastal Federation to plan a public forum on PFAS emerging contaminants to be held at UNC

Wilmington in late May 2019. They are also coordinating Science Café talks, developing communications training for Network scientists, and organizing content for the launch of a new NC PFAST Network website in early April.

- A data policy agreement has been finalized and approved by the Executive Advisory Committee. The data science and management team has been evaluating data management platforms and are coordinating with the risk communications team to create a link to the data portal from the new website. All data for public dissemination will be reviewed for quality, accuracy, and appropriateness in accordance with the data policy agreement prior to upload. The team has developed a global map of PFAS research that will be continually expanded and integrated into the data repository platform and continues to provide GIS mapping and integration support to the research teams.
- PFAST Network investigators, postdocs, and students have participated in national conferences, local workshops, and meetings to raise awareness of the NC PFAST Network study and to share goals of the various research projects, workflow strategies, and updates with legislative and regulatory committees and key community stakeholders. A listing of recent meetings is provided in Appendix III.

PFAS Water Sampling and Analysis

- Sampling at drinking water treatment facilities is underway. Standardized questionnaires (for recording Meta data) and sample chain of custody forms were created, and all sampling supplies were acquired. The team has been contacting water treatment facilities regularly to schedule sampling visits. A complete listing of the 358 sampling sites was included in Appendix V of the Jan. 1, 2019 quarterly report.
- Water intake samples collected at Pittsboro, Chatham County North, Cary/Apex, Harnett County, and Sanford water treatment facilities have been analyzed on both the triple quadrupole and high resolution Orbitrap mass spectrometers and have been assayed for total adsorbable fluorine content. Data are being processed and reviewed while more samples are collected and analyzed.
- The targeted, quantitative analysis method has been updated to include 10 additional PFAS and continues to expand as new standards become available. Further optimization is currently in progress to add 2 more compounds to the method.
- On-line and off-line solid phase extraction methods for sample clean-up and concentration are being evaluated for their ability to enhance signals and improve method detection limits for targeted and suspect or non-targeted screening.

Private Well Risk Modeling

- Water has been sampled from all accessible streams near Chemours that are tributaries to the Cape Fear River (CFR) for determination of PFAS concentrations. In each stream, salt tracer releases were carried out in order to quantify volumetric stream discharge. The results will provide a snapshot of the PFAS discharge into the CFR from all tributary streams near Chemours, at essentially a moment in time (one hydrologic condition in mid-winter). This type of information is critical for quantifying the PFAS output from local

watersheds to the CFR, a surface water hydrologic process likely driven mostly by the discharge of PFAS-contaminated groundwater into the tributary streams.

- A field campaign focused on the streambed of Georgia Branch (a contaminated tributary) was completed to simultaneously measure: PFAS concentration in groundwater beneath Georgia Branch; groundwater and PFAS flux into Georgia Branch; and groundwater age. Water flux calculations have been completed, and PFAS concentration analysis is in progress. Water samples have been shipped to a laboratory at the University of Nebraska for noble gas and tritium analysis.
- Additional layers of information acquired from national and local databases and local county health departments have been added to the spatial model which will be used in the Bayesian network model for predicting private well contamination risk. Data include aquifer water level, tree/land cover, wind direction, and well construction information. In consideration of other potential sources of contamination near the private wells in the area, more information has also been layered into the model including data from waste management sites, wastewater treatment plants, and proximity to airports, rivers, and major fire incidents. Septic tank information is also being collected and will be incorporated once available.

PFAS Removal Performance Testing

- Rapid, small-scale column tests were conducted to evaluate PFAS removal by two granular activated carbons (GAC) and one ion exchange (IX) resin using water collected at the Sweeney water treatment plant in Wilmington. The experiments also tested the effects of empty bed contact times (EBCT) on PFAS removal and breakthrough. Currently, five bench-scale column designs are being tested to identify an approach that effectively describes PFAS removal in field-scale IX treatment processes.
- Ten commercial membranes were chosen and procured for testing the removal performance of 29 selected PFAS. Water pretreatment, sample collection, and sample storage protocols have been established, membrane testing rigs have been assembled, and preliminary testing has begun. Membrane modification procedures are also being evaluated for effects on contaminant passage.
- New reactors have been constructed using reduced graphene oxide membrane anodes and titanium mesh cathodes to concentrate PFAS-contaminated water and subsequently remove PFAS via electrochemical oxidation (mineralization). Additional reactors containing a titanium/ruthenium oxide anode are also being built for evaluation.
- Drinking water samples have been collected from more than 70 homes in Durham, Raleigh, Cary, Apex, Chapel Hill and Pittsboro for the study "PFAS removal from finished drinking water by in-home filters in NC households". The study is testing the efficiency of various in-home treatments (carbon filters and reverse osmosis systems) for removal of 11 targeted PFAS. With the assistance of the Haw Riverkeeper, monthly samples are also being collected from several sites along the Haw River to understand the temporal and spatial variability in the levels these PFAS.
- The two Ionic Fluorogels (developed and tested at UNC Chapel Hill) demonstrating the highest sorption of PFAS were compared against commercially available powder activated

carbon (PAC), granular activated carbon (GAC), and ion exchange (IX) resins and were shown to outperform the commercial materials under the conditions tested, especially for short-chain PFAS compounds (PFHxA and GenX). Two optimized formulations were selected for further capacity testing.

Air Emissions and Atmospheric Deposition

- Aerosol samplers have been installed and are collecting weekly (6-day) composite samples at 5 sites (Fayetteville, Wilmington (UNC-W), Greenville (ECU), Research Triangle Park, and Charlotte (UNC-C). The samplers collect gases on a polyurethane foam (PUF) plug upstream of a quartz filter (QF) which collects particles. Monthly rotation of field blanks collection among the sites enables determination of PFAS detection limits for particle-bound and aqueous PFAS. In addition, gaseous PFAS breakthrough is being evaluated by operating 2 PUFs in series at one site, also rotating on a monthly basis.
- Together with air sample collection for PFAS analyses, the team is monitoring airborne fine particulate matter (PM_{2.5}) at two sites. Equipment (nephelometers) for measuring particle concentrations is running at the RTP site in Morrisville and the Honeycutt site in Fayetteville. This site is hosted by the NC DEQ's Division of Air Quality and conducts routine monitoring of ozone and sulfur dioxide.
- Recovery tests and optimization of QF and PUF sample extractions are in progress as well as evaluation of the analytical method (mass spectrometry) detection limits to determine whether weekly samples need to be combined for analysis.
- More than 30 rain events have been sampled at the main UNC Wilmington collection station. Extreme rain events including a low pressure system, hurricanes Florence and Michael, and a winter wet-deposition event have been sampled at the participating sites across the state (UNC-W, Bald Head Island, ECU, UNC-C, UNC-CH, and Appalachian State). Despite an extremely wet winter, all sites have collected at least one dry deposition sample for the winter season. Samples are currently being processed and analyzed to quantify PFAS, and extracts are also being analyzed by fluorine nuclear magnetic resonance (NMR) spectroscopy in addition to high resolution mass spectrometry to aid in determining the structures of previously unidentified fluorinated compounds.

Other Applied Research Opportunities:

Novel PFAS Inputs into the environment: landfill leachates:

- Meetings and calls were held with DEQ staff and waste industry representatives and letters were sent to landfill owners and operators requesting access to their facilities. At the time of this report, 11 landfills have given permission to sample at their sites. In addition, a creek adjacent to an unlined construction and demolition (C&D) landfill has been sampled, 1 lined C&D landfill has given permission to sample there, and plans have been made to obtain leachate from at least one unlined C&D landfill.
- Requests to sample were also sent to wastewater treatment plants. Twenty-four have decided to participate in this study, and samples have already been collected from 11 of these. Two treatment plants are being sampled weekly to assess temporal variability.

- Several wastewater treatment plant and landfill operators are reluctant to allow sampling at their facilities and have denied requests to participate.

PFAS bioaccumulation in aquatic environments: alligator and fish studies:

- In collaboration with the US EPA, serum samples from alligators and striped bass have been reanalyzed for PFAS. Total levels of PFAS were higher in Cape Fear River striped bass than in aquaculture-raised (unexposed) striped bass. In addition to PFAS levels, blood chemistry, enzyme levels and immunological function were measured to evaluate possible associations with detected exposures. Non-targeted analysis identified longer chain PFAS compounds that can be quantified once analytical standards are acquired.
- An organizational meeting was held with the NC Wildlife Commission to plan for the spring 2019 sample collections in the Cape Fear and Roanoke rivers, and all permitting is in place. Geospatial mapping of the previous sampling and methods for inclusion of exposure data are in progress.

Health effects following exposure: mouse model of immunotoxicity:

- A second dosing study has been initiated for immunotoxicity assessment in mice. Data have been analyzed from the first study in which mice were dosed with PFMOAA, one PFAS previously found in high concentrations in the Cape Fear River. A poster describing the PFMOAA immunotoxicity study was recently presented at the 2019 annual meeting of the Society of Toxicology held in Baltimore, MD in March.

PFAS bioaccumulation and distribution in crop plants: greenhouse studies:

- Greenhouse experiments incorporating PFAS-contaminated water and various ratios of compost in soil have been initiated with lettuce as the first crop growing. A competitive proposal has been submitted to the Canadian Light Source to obtain access to beamline for PFAS distribution mapping in plant tissues.

Health effects following exposure: placental inflammation and immune cell signaling:

- For the assessment of potential association of PFAS exposure with adverse birth outcomes, enrollment of subjects in the EPOCH-PLUS and EPOCH-CASE studies continued. To date, 38 pregnant women have enrolled during the period of 11/1/18 through 3/19/19. Initial water samples have been received from 16 of the 27 EPOCH-PLUS participants and 5 of the women have provided a second water sample, and 3 have sent a third sample. Of the 11 EPOCH-CASE participants, 4 have submitted water samples. Additional demographics, health history, and outcome data have been entered for enrolled subjects, and method optimization for sample extraction and PFAS analysis in both water and placenta samples is in progress.
- Laboratory experiments have been conducted using placental cell lines treated with a range of doses of selected PFAS to investigate potential PFAS-induced inflammatory effects. Gene and protein expression analysis were performed as well as protein content measurements to assess cellular accumulation resulting from exposure.

APPENDIX I

LEGISLATIVE LANGUAGE PASSED BY THE NORTH CAROLINA GENERAL ASSEMBLY

(Session Law 2018-5, Sections (f) through (l), effective June 12, 2018)

FUNDING TO ADDRESS PER- AND POLY-FLUOROALKYL SUBSTANCES, INCLUDING GENX/USE OF EXPERTISE AND TECHNOLOGY AVAILABLE IN INSTITUTIONS OF HIGHER EDUCATION LOCATED WITHIN THE STATE

SECTION 13.1.(f) The General Assembly finds that (i) per- and poly-fluoroalkyl substances (PFAS), including the chemical known as "GenX" (CAS registry number 62037-80-3 or 13252-13-6), are present in multiple watersheds in the State, and impair drinking water and (ii) these contaminants have been discovered largely through academic research not through systematic water quality monitoring programs operated by the Department of Environmental Quality or other State or federal agencies. The General Assembly finds that the profound, extensive, and nationally recognized faculty expertise, technology, and instrumentation existing within the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions of higher education located throughout the State should be maximally utilized to address the occurrence of PFAS, including GenX, in drinking water resources.

SECTION 13.1.(g) The North Carolina Policy Collaboratory at the University of North Carolina at Chapel Hill (Collaboratory) shall identify faculty expertise, technology, and instrumentation, including mass spectrometers, located within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, and coordinate these faculty and resources to conduct nontargeted analysis for PFAS, including GenX, at all public water supply surface water intakes and one public water supply well selected by each municipal water system that operates groundwater wells for public drinking water supplies as identified by the Department of Environmental Quality, to establish a water quality baseline for all sampling sites. The Collaboratory, in consultation with the participating institutions of higher education, shall establish a protocol for the baseline testing required by this subsection, as well as a protocol for periodic retesting of the municipal intakes and additional public water supply wells. No later than December 1, 2019, Collaboratory shall report the results of such sampling by identifying chemical families detected at each intake to the Environmental Review Commission, the Department of Environmental Quality, the Department of Health and Human Services, and the United States Environmental Protection Agency.

SECTION 13.1.(h) Beginning October 1, 2018, the Collaboratory shall report no less than quarterly to the Environmental Review Commission, the Department of Environmental Quality, and the Department of Health and Human Services on all activities conducted pursuant to this section, including any findings and recommendations for any steps the Department of Environmental Quality, the Department of Health and Human Services, the General Assembly, or any other unit of government should take in order to address the impacts of PFAS, including GenX, on surface water and groundwater quality, as well as air quality in the State.

SECTION 13.1.(i) Five million thirteen thousand dollars (\$5,013,000) of the funds appropriated in this act for the 2018-2019 fiscal year to the Board of Governors of The University of North Carolina shall be allocated to the Collaboratory to manage and implement the requirements of this section, which shall include distribution to the Collaboratory and participating institutions of higher education (i) to cover costs incurred as a result of activities conducted pursuant to this section, (ii) for acquisition or modification of essential scientific instruments, or (iii) for payments of costs for sample collection and analysis, training or hiring of research staff and other personnel, method development activities, and data management, including dissemination of relevant data to stakeholders. No overhead shall be taken from these funds from the participating institutions that receive any portion of these funds. Funds appropriated by this section shall not revert but shall remain available for nonrecurring expenses.

SECTION 13.1.(j) The Collaboratory should pursue relevant public and private funding opportunities that may be available to address the impacts of PFAS, including GenX, on surface water and groundwater quality, as well as air quality, in order to leverage funds appropriated by this section, or any other funds provided to the Collaboratory, including the Challenge Grant authorized in Section 27.5 of S.L. 2016-94, as amended by Section 10.4(a) of S.L. 2017-57.

SECTION 13.1.(k) In the event that the United States Environmental Protection Agency no longer provides access to its analytical instrumentation at no cost to the State for water quality sampling analysis related to per- and poly-fluoroalkyl substances (PFAS), including the chemical known as "GenX" (CAS registry number 62037-80-3 or 13252-13-6), or if the Department of Environmental Quality determines that such analysis is not being performed in a sufficiently timely manner, the Collaboratory shall coordinate such analysis in the most cost-effective manner using relevant faculty expertise, technology, and instrumentation, including mass spectrometers, existing throughout institutions of higher education located throughout the State, until such time as the Department of Environmental Quality is able to perform such analysis with instrumentation acquired pursuant to subsection (q) of this section. The Collaboratory, in consultation with the Department and relevant experts across institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, shall establish a protocol for delivery of such samples taken by the Department to the entity designated to perform analysis of the samples, chain of custody protocols, and other matters to ensure proper handling and processing of the samples, which protocols shall be subject to approval by the United States Environmental Protection Agency, if such approval is required pursuant to authority delegated from the United States Environmental Protection Agency to the Department to administer federal environmental law.

SECTION 13.1.(l) The Collaboratory shall identify faculty expertise within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, and use technology and instrumentation existing throughout the institutions to conduct the following research (i) develop quantitative models to predict which private wells are most at risk of contamination from the discharge of PFAS, including GenX; (ii) test the performance of relevant technologies in removing such compounds; and (iii) study the air emissions and atmospheric deposition of PFAS, including GenX. In addition, Collaboratory may, using relevant faculty expertise, technology, and instrumentation existing throughout institutions identified, evaluate other research opportunities and conduct such research for improved water quality sampling and analyses techniques, data interpretation, and potential mitigation measures that may be necessary, with respect to the discharge of PFAS, including GenX.

APPENDIX II

LETTER FROM THE NC PFAST NETWORK PROGRAM DIRECTOR AND CO-CHAIRS OF THE EXECUTIVE ADVISORY COMMITTEE TO THE RESEARCH DIRECTOR OF THE NC POLICY COLLABORATORY REQUESTING A STUDY EXTENSION FROM THE NORTH CAROLINA GENERAL ASSEMBLY



March 13, 2019

Jeffrey Warren, PhD
Research Director
North Carolina Policy Collaboratory
400 Roberson Street
Carrboro, NC 27510

Dear Dr. Warren:

Research being conducted by the seven academic teams from across the State (NCSU, UNCCH, UNCC, UNCW, NCA&T, ECU, and Duke) that comprise the North Carolina Poly- and Perfluoroalkyl Substances Testing (PFAST) Network is well underway in order to achieve the broad research goals set forth by the North Carolina General Assembly (NCGA) in Session Law 2018-5 (Sections 13.1(f) through (l)). However, after the PFAST Network Executive Advisory Committee meeting held on March 6th (co-chaired by Drs. Detlef Knappe and Lee Ferguson from NCSU and Duke, respectively), there was unanimous support to request a one-year extension of the study deadline of December 1, 2019 set forth in Section 13.1(g) of Session Law 2018-5 (i.e., a new deadline of December 1, 2020).

With regards to analysis of public drinking water supplies, the initial goal was to collect and analyze two discrete samples at each of the 348 sampling sites identified by the NC Department of Environmental Quality (DEQ) spread across the State with a third round focused on a yet-to-be-determined subset of those sites that merited additional analysis. This goal is potentially too aggressive noting the extensive geographic footprint of the sampling locations and unforeseen impacts of adverse weather events on the sampling schedule. Furthermore, the proposed sampling plan does not allow for the evaluation of temporal variability. Preliminary work by the team indicates that PFAS levels may show significant variability in drinking water sources based on seasonal and meteorological conditions. A one-year extension of the study would not only provide more time to analyze, quality check, synthesize, and interpret the non-targeted data but also allow for two more rounds of sampling to achieve one sample at each location during each of our four seasons, capturing a broader range of hydrological conditions. Duplicate samples for quality assurance, field blanks, and trip blanks also add a tremendous number of additional analyses well above the 348 required sample sites. Also note that PFAST Network labs currently are helping to train DEQ scientific staff for PFAS analysis as well as assisting the DEQ in running water monitoring samples from numerous sites to help clear the backlog that occurred when the Environmental Protection Agency was no longer able to perform the analyses dating back to November 2018.

With regards to air analysis, an extension would allow our five monitoring stations, currently in place and operating across the State, to collect at least a year of continuous data for better temporal resolution that will, in turn, provide a more robust understanding of the atmospheric fate, transport, and deposition of PFAS across the State. Likewise, investigators from our other research teams (who are not members of the Executive Advisory Committee) have also expressed their desire to have more time for building relationships with key stakeholders and cultivating trust with local utilities and community partners. Additional time on the back end of the project will allow the researchers from each of our seven teams to finalize their analyses, discuss their findings with each other, and synthesize what likely will be one of the largest spatial and temporal PFAS datasets in the world. Time spent engaging constituents, anticipating their questions and concerns, and incorporating their feedback into ongoing research and future data sharing represent a strategic investment for the State and will provide robustness to future policy discussions and actions that result from the PFAST Network research study.

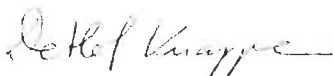
With these additional data needs, which are critical to achieve the highest levels of confidence, comes additional costs for water sampling and analysis and project logistics. We understand that the Collaboratory may be able to supplement some, but not all, of these costs so the hope is that, along with a one-year extension of the project, the NCGA would note that the cost of these additional recommended sampling campaigns is estimated to cost approximately \$1.5 million. This total includes the cost of two more rounds of water sample acquisition and analysis (348 samples x 2, associated trip and field blanks, duplicate analyses for quality assurance, and funding for related project management including the continued support for a synthetic chemist to create PFAS compounds unavailable for purchase on the open market to use as analytical laboratory standards).

Please feel free to reach out to us, or any PFAST Network Team member, for additional information and insight on the issues outlined herein. We all stand ready to communicate our scopes of work, timelines, initial findings, and the need for additional time and the cost of additional research with all members of the NCGA as well as their staff.

Regards,

A handwritten signature in blue ink, appearing to read "Jason Surratt".

Jason Surratt, PhD
Professor and PFAST Network Project Director
Department of Environmental Sciences and Engineering
Gillings School of Global Public Health
The University of North Carolina at Chapel Hill

A handwritten signature in black ink, appearing to read "Detlef Knappe".

Detlef Knappe, PhD
S. James Ellen Distinguished Professor and PFAST Network Executive Advisory Committee Co-Chair
Department of Civil, Construction, and Environmental Engineering
North Carolina State University

A handwritten signature in black ink, appearing to read "P. Lee Ferguson".

P. Lee Ferguson, PhD
Associate Professor and PFAST Network Executive Advisory Committee Co-Chair
Department of Civil and Environmental Engineering
Pratt School of Engineering
Duke University

APPENDIX III

LIST OF MEETINGS, WORKSHOPS, AND CONFERENCES IN WHICH NC PFAST NETWORK SCIENTISTS WERE INVITED TO PRESENT INFORMATION RELATED TO THE ONGOING RESEARCH STUDY

- Jan. 16, 2019 Kathleen Gray, Megan Rodgers, Victoria Triana, and Wanda Bodnar met with OWASA representatives in Chapel Hill to provide an overview of PFAST Network activities and to start a dialogue around how best to inform the public about emerging contaminants and results from water quality testing
- Jan. 23, 2019 Jamie DeWitt gave a short interview for an NPR affiliate in Michigan briefly describing the NC PFAS Testing Network and what is being done to learn more about PFAS emissions in the air
- Jan. 28, 2019 Jason Surratt and Detlef Knappe presented an overview of PFAST Network research activities during a half-day meeting with NC legislators focused on state-funded research projects at the UNC Gillings School of Global Public Health, Chapel Hill, NC
- Feb. 8, 2019 Jamie DeWitt presented preliminary results from PFAS immunotoxicity experiments to the Chemistry Department at UNC Wilmington
- Feb. 14, 2019 Several PFAST Network investigators participated in a symposium in Raleigh hosted by the NC State University Center for Human Health and the Environment focused on GenX and PFAS emerging contaminants
- Feb. 14, 2019 Wanda Bodnar and Abigail Joyce presented an overview of the PFAST Network and shared results from water sampling and analysis following hurricanes Florence and Michael at the NC Manufacturers' Association Water Quality Workshop in Raleigh
- Feb. 26, 2019 Jason Surratt and Kathleen Gray attended a public screening of the documentary "The Devil We Know" organized by Toxic Free NC at the NC Botanical Gardens in Chapel Hill. Following the film they answered general questions about the PFAST Network
- Feb. 28, 2019 Wanda Bodnar and Detlef Knappe presented an overview the PFAST Network and shared results from water sampling and analysis during the NC Water Quality Association's Drinking Water Committee meeting in Raleigh

- Mar. 5, 2019 Morton Barlaz discussed research plans with landfill operators at the Solid Waste Association of North America (SWANA) conference
- Mar. 10, 2019 Network researchers presented posters at the annual conference of the Society of Toxicology held in Baltimore, MD during the week of March 10th
- Mar. 21, 2019 Scott Belcher spoke about PFAS sampling in striped bass and alligators in a Science Café presentation at the NC Museum of Natural Sciences
- Mar. 21, 2019 David Genereux presented at the annual conference of the UNC Water Resources Research Institute in Raleigh

2018 BUDGET ACT (Session Law 2018-5)

FUNDING TO ADDRESS PER- AND POLY-FLUOROALKYL SUBSTANCES, INCLUDING GENX/USE OF EXPERTISE AND TECHNOLOGY AVAILABLE IN INSTITUTIONS OF HIGHER EDUCATION LOCATED WITHIN THE STATE

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SECTION 13.1.(g) The North Carolina Policy Collaboratory at the University of North Carolina at Chapel Hill (Collaboratory) shall identify faculty expertise, technology, and instrumentation, including mass spectrometers, located within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, and coordinate these faculty and resources to conduct nontargeted analysis for PFAS, including GenX, at all public water supply surface water intakes and one public water supply well selected by each municipal water system that operates groundwater wells for public drinking water supplies as identified by the Department of Environmental Quality, to establish a water quality baseline for all sampling sites. The Collaboratory, in consultation with the participating institutions of higher education, shall establish a protocol for the baseline testing required by this subsection, as well as a protocol for periodic retesting of the municipal intakes and additional public water supply wells. No later than December 1, 2019, Collaboratory shall report the results of such sampling by identifying chemical families detected at each intake to the Environmental Review Commission, the Department of Environmental Quality, the Department of Health and Human Services, and the United States Environmental Protection Agency.

SECTION 13.1.(h) Beginning October 1, 2018, the Collaboratory shall report no less than quarterly to the Environmental Review Commission, the Department of Environmental Quality, and the Department of Health and Human Services on all activities conducted pursuant to this section, including any findings and recommendations for any steps the Department of Environmental Quality, the Department of Health and Human Services, the General Assembly, or any other unit of government should take in order to address the impacts of PFAS, including GenX, on surface water and groundwater quality, as well as air quality in the State.

SECTION 13.1.(i) Five million thirteen thousand dollars (\$5,013,000) of the funds appropriated in this act for the 2018-2019 fiscal year to the Board of Governors of The University of North Carolina shall be allocated to the Collaboratory to manage and implement the requirements of this section, which shall include distribution to the Collaboratory and participating institutions of higher education (i) to cover costs incurred as a result of activities conducted pursuant to this section, (ii) for acquisition or modification of essential scientific instruments, or

(iii) for payments of costs for sample collection and analysis, training or hiring of research staff and other personnel, method development activities, and data management, including dissemination of relevant data to stakeholders. No overhead shall be taken from these funds from the participating institutions that receive any portion of these funds. Funds appropriated by this section shall not revert but shall remain available for nonrecurring expenses.

SECTION 13.1.(j) The Collaboratory should pursue relevant public and private funding opportunities that may be available to address the impacts of PFAS, including GenX, on surface water and groundwater quality, as well as air quality, in order to leverage funds appropriated by this section, or any other funds provided to the Collaboratory, including the Challenge Grant authorized in Section 27.5 of S.L. 2016-94, as amended by Section 10.4(a) of S.L. 2017-57.

SECTION 13.1.(k) In the event that the United States Environmental Protection Agency no longer provides access to its analytical instrumentation at no cost to the State for water quality sampling analysis related to per- and poly-fluoroalkyl substances (PFAS), including the chemical known as "GenX" (CAS registry number 62037-80-3 or 13252-13-6), or if the Department of Environmental Quality determines that such analysis is not being performed in a sufficiently timely manner, the Collaboratory shall coordinate such analysis in the most cost-effective manner using relevant faculty expertise, technology, and instrumentation, including mass spectrometers, existing throughout institutions of higher education located throughout the State, until such time as the Department of Environmental Quality is able to perform such analysis with instrumentation acquired pursuant to subsection (q) of this section. The Collaboratory, in consultation with the Department and relevant experts across institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, shall establish a protocol for delivery of such samples taken by the Department to the entity designated to perform analysis of the samples, chain of custody protocols, and other matters to ensure proper handling and processing of the samples, which protocols shall be subject to approval by the United States Environmental Protection Agency, if such approval is required pursuant to authority delegated from the United States Environmental Protection Agency to the Department to administer federal environmental law.

SECTION 13.1.(l) The Collaboratory shall identify faculty expertise within institutions of higher education in the State, including the Universities of North Carolina at Chapel Hill and Wilmington, North Carolina State University, North Carolina A&T State University, Duke University, and other public and private institutions, and use technology and instrumentation existing throughout the institutions to conduct the following research (i) develop quantitative models to predict which private wells are most at risk of contamination from the discharge of PFAS, including GenX; (ii) test the performance of relevant technologies in removing such compounds; and (iii) study the air emissions and atmospheric deposition of PFAS, including GenX. In addition, Collaboratory may, using relevant faculty expertise, technology, and instrumentation existing throughout institutions identified, evaluate other research opportunities and conduct such research for improved water quality sampling and analyses techniques, data interpretation, and potential mitigation measures that may be necessary, with respect to the discharge of PFAS, including GenX.

Committee Sergeants at Arms

NAME OF COMMITTEE HC on Environment

DATE: 4/9/2019 Room: 423

House Sgt-At Arms:

1. Name: Rex Foster
2. Name: Ken Gilbert
3. Name: Russell Salisbury
4. Name: David Leighton
5. Name: _____

Senate Sgt-At Arms:

1. Name: _____
2. Name: _____
3. Name: _____
4. Name: _____
5. Name: _____

**House Pages
Assignments
Tuesday, April 09, 2019
Session: 4:45 PM**

Committee	Room	Time	Staff	Comments	Member
Education - K-12	643	1:00 PM	Fabian Horton		Rep. Elmer Floyd
			Chloe Schubert		Rep. Bobby Hanig
			Natalie Stone		Rep. Lisa Stone Barnes
Environment	422B/1107	1:00 PM	Erin Bembridge		Rep. Bobby Hanig
	423 LAB		Dalton Snipes		Rep. John A. Torbett

VISITOR REGISTRATION SHEET

HC on Environment

4/9/2019

Name of Committee

Date

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FIRM OR AGENCY AND ADDRESS

Steve Wall	UNC
Kasia Grzebyk	UNC
Amy Auth	UNC-CH
Wanda Bodnar	UNC-CH
Chris Lenhardt	UNC-CH
Martha Scott Tomlinson	UNC-CH
Jamie DeWitt	ECU
Ralph Mead	UNCW
Mei Sun	UNC Charlotte
Orlando Cornell	UNC-CH
Manal Khan	UNC-CH

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FIRM OR AGENCY AND ADDRESS

Angela Harris

NCSU

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NAME	FIRM OR AGENCY AND ADDRESS
LISA SORGE	NCPW
Alice Wimberly	NCCW
TOM BEAN	EDF, NCSEA, NCWF
Sarah Patterson	WM
Paul Stern	NCFB
Julie Smith	NC State University
Debra Dew	NC Chamber
Samantha Long	NCFA intern
Sarah Collins	NCLM
Austin Howell	UNC System
Erin Danford	NC Policy Collaboratory

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NAME	FIRM OR AGENCY AND ADDRESS
John Merritt	DRAMTREE CORP.
Chris Anderson	
Matt Claypool	EVERGREEN PACKAGING
Came Garia	Jena Club
Joy Hiche	DEQ
John Lucey	DEQ
Shrikar Nanna	DEQ
Sallie James	Governor's office
Wallace McDonald	Evergreen Packaging
Kara Weishaar	SA
Gadry Miller	NECA

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FIRM OR AGENCY AND ADDRESS

Lee Ferguson

Duke University

Pellef Knappe

NC State Univ.

David Genereux

NC State Univ.

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Jason Deans	JD+A
Amanda Falkenberg	JDA
Amy KMR	Brightway Stratze —
Tommy Stevens	Stevens Lobby
Preston Harwood	NCMA
LD Ryan	OS
Mer PZ	Evergreen Packaging
Reg. Page	EPL
Doug Lassiter	NCSTA



North Carolina General Assembly

House Standing Committee on Environment

2020 Short Session

Rep. Pat McElraft, Chair

Rep. Larry Yarborough, Chair

Rep. Pricey Harrison, Vice Chair

Rep. Chuck McGrady, Vice Chair

Nancy Fox, Committee Clerk

Leslie Murray, Committee Clerk

This committee did not meet during 2020 Short Session

A handwritten signature of Larry Yarborough, written in dark ink, positioned above a horizontal line.

Rep. Larry Yarborough

