ATTACHMENT 1WS

NORTH CAROLINA SOIL AND WATER CONSERVATION COMMISSION
RALEIGH, NORTH CAROLINA
WORK SESSION AGENDA
DRAFT

WORK SESSION
Steve Troxler Agricultural Sciences Center
4400 Reedy Creek Road
Raleigh, NC 27607
November 9, 2021
6:00 p.m.

BUSINESS SESSION
Steve Troxler Agricultural Sciences Center
4400 Reedy Creek Road
Raleigh, NC 27607
November 10, 2021
9:00 a.m.

I. CALL TO ORDER

The State Government Ethics Act mandates that at the beginning of any meeting the Chair reminds all the members of their duty to avoid conflicts of interest and inquire as to whether any member knows of any conflict of interest or potential conflict with respect to matters to come before the Commission. If any member knows of a conflict of interest or potential conflict, please state so at this time.

II. PRELIMINARY – Business Meeting

Welcome – Cell phones set to silent or $100 donation — Chairman John Langdon

III. BUSINESS

1. Approval of Agenda — Chairman John Langdon
2. Approval of Meeting Minutes — Chairman John Langdon
   A. September 21, 2021 Work Session Meeting Minutes
   B. September 22, 2021 Business Session Meeting Minutes
3. Division Report — Director Vernon Cox
4. Association Report — President Blount Knowles
5. Executive Director's Report — Mr. Bryan Evans
6. NRCS Report — Mr. Tim Beard
7. Consent Agenda
   A. Supervisor Appointments — Mr. David Williams
   B. Supervisor Contracts — Mr. Joshua Vetter
8. Job Approval Authority
   A. Technical Competency Requirements — Mr. Rick McSwain

9. Randolph Soil and Water Conservation District AgWRAP Allocation — Ms. Sydney Mucha

10. CCAP Average Cost List — Mr. Tom Hill

11. Neuse and Tar-Pamlico Annual Progress Reports for Agriculture — Ms. Allie Dinwiddie

12. District Issues — Mr. Joshua Vetter
    A. Post Approval Contract # 92-2022-802 — Wake SWCD

IV. PUBLIC COMMENTS

V. ADJOURNMENT

ATTACHMENT 1BS

NORTH CAROLINA SOIL AND WATER CONSERVATION COMMISSION
RALEIGH, NORTH CAROLINA
BUSINESS SESSION AGENDA
DRAFT

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Steve Troxler Agricultural Sciences Center
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II. PRELIMINARY – Business Meeting

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1. Approval of Agenda — Chairman John Langdon
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8. Job Approval Authority
   A. Technical Competency Requirements — Mr. Rick McSwain

ATTACHMENT 1BS

9. Randolph Soil and Water Conservation District AgWRAP Allocation — Ms. Sydney Mucha

10. CCAP Average Cost List — Mr. Tom Hill

11. Neuse and Tar-Pamlico Annual Progress Reports for Agriculture — Ms. Allie Dinwiddie

12. District Issues — Mr. Joshua Vetter
    A. Post Approval Contract # 92-2022-802 — Wake SWCD

IV. PUBLIC COMMENTS

V. ADJOURNMENT

NORTH CAROLINA
SOIL & WATER CONSERVATION COMMISSION
WORK SESSION MEETING MINUTES
November 9, 2021

Department of Agriculture
Division of Soil & Water Conservation
Steve Troxler Agricultural Sciences Center
4400 Reedy Creek Road
Raleigh, NC 27607

Commission Members	Guests	Guests
John Langdon	Rick McSwain	Scott Melvin
Wayne Collier	Ken Parks	Brandy Myers
Blount Knowles	Eric Pare	Gail Hughes
Chris Hogan - online	Tom Hill	Allie Dinwiddie
Chris Hughes - online	Sydney Mucha	Kristina Fischer
Derek Potter	Michael Shepherd	Paula Day
Mike Willis	Joshua Vetter	Patrick Mitchell
Commission Counsel	Helen Wiklund	Craig Frazier
Phillip Reynolds	Sandra Weitzel	Anne Coan
Guests	Ralston James	Rob Baldwin
Vernon Cox	Cayle Aldridge	Randy Freeman
David Williams	Julie Henshaw	
Bryan Evans	Lisa Fine	

Chairman Langdon called the meeting to order at 6:01 p.m. Chairman Langdon inquired whether any Commission members need to declare any conflict of interest, or appearance of conflict of interest, that may exist for agenda items under consideration, as mandated by the State Ethics Act. Chairman Langdon stated the meeting guidelines. Chairman Langdon asked all participants to introduce themselves.

1. **Approval of Agenda:** Chairman Langdon asked for comments on the agenda. None were declared.

2. **Approval of Meeting Minutes:** Chairman Langdon asked for comments of the minutes.

   2A. September 21, 2021 Work Session Meeting Minutes
   2B. September 22, 2021 Business Session Meeting Minutes

   Commissioner Collier stated the minutes are in order. Chairman Langdon stated he appreciates Commissioner Collier's participation and assistance with the Commission.

3. **Division Report:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated the report will be presented tomorrow, and there is a proposed organizational chart that is included in the report. However, the current organizational chart is missing and will be provided tomorrow.

4. **Association Report:** Chairman Langdon recognized President Blount Knowles to present. A copy of the report is included as an official part of the minutes. President Knowles stated the report will be presented tomorrow.

5. **Executive Director's Report:** Chairman Langdon recognized Mr. Bryan Evans to present. A copy of the report is included as an official part of the minutes. Mr. Evans stated the report will be presented tomorrow.

6. **NRCS Report:** Chairman Langdon recognized Mr. Tim Beard to present. A copy of the report is included as an official part of the minutes. Mr. Beard will present the report tomorrow.

7. **Consent Agenda:** Chairman Langdon recognized Deputy Director David Williams and Mr. Joshua Vetter to present. Copies of the reports are included as an official part of the minutes.

7A. Supervisor Appointments:

- John Glenn Skinner, Jr., Carteret SWCD, filling the unexpired appointed term of Herbert Page (deceased) for 2020-2024
- Cheryl McCoy Correll, Rowan SWCD, filling the unexpired elected term of Leonard Maxwell West for 2018-2022 with an attached resignation letter from Mr. West

Deputy Director Williams stated the supervisor reappointment form is being uploaded to Formsite to make it easier and more legible for the districts to fill out.

7B. Supervisor Contracts: 6 contracts; totaling $69,805

8. **Job Approval Authority:** Chairman Langdon recognized Mr. Rick McSwain to present. A copy of the report is included as an official part of the minutes.

8A. Technical Competency Requirements: Mr. McSwain stated the Job Approval Authority Workgroup is recommending three Best Management Practices (BMPs) for approval.

- Lagoon Biosolids Removal
  - Units = Type and Job Class I = All
  - Added under Prerequisites number 8, "*Waste Utilization Planning/Nutrient Management (WUP/NM) technical Specialist Designation*"
  - Individuals applying for Job Approval Authority (JAA) with this practice must submit two designs with one design being put on the ground
- Manure/Litter Transportation Incentive
  - Added under the KSAs number 1, "*Knowledge of Manure/Litter waste transportation methods and equipment*"
  - Units = Type and Job Class I = All

- Closure of Abandoned Waste Impoundment
    - Only applies to waste ponds and lagoons
    - Controlling Factor = Storage After Closure*, Units = Gallons and Job Class I = Zero
    - Added under Prerequisites, "**If storage of fresh water is to be maintained after verification of waste removal, a PE must be involved with spillway design and 360 JAA is not applicable*"

Mr. McSwain stated Michael Shepherd is working on the technical competency requirements for MicroIrrigation and will be presented at the January Commission meeting.

Chairman Langdon stated the transportation of manure and the handling of the sludge component needs to be reviewed.

9. **Randolph Soil and Water Conservation District AgWRAP Allocation:** Chairman Langdon recognized Ms. Sydney Mucha to present. A copy of the report is included as an official part of the minutes. Ms. Mucha stated Randolph SWCD submitted a revised strategic plan to request AgWRAP funds, which is in line with Rule 01 NCAC 59D .0105. Mr. Craig Frazier stated the district had not submitted requests for AgWRAP funds because the district had no interest. Later, a producer in the district requested AgWRAP funding, and the district submitted the request. Ms. Mucha stated the district is not penalized for the return of AgWRAP funds; it does not affect the district's AgWRAP score.

10. **CCAP Average Cost List:** Chairman Langdon recognized Mr. Tom Hill to present. A copy of the report is included as an official part of the minutes. Mr. Hill stated the below proposed changes to the list and to move towards actual costs, with caps on the appropriate Best Management Practices (BMPs):

    - Minor updates since the program's inception in 2008
    - Difficulties by the districts during discussion with participants regarding average costs
    - Confusion for participants over the costs
    - Minimal costs of several components
    - Data analysis of information uploaded to CS2
    - Gathering of data from the Districts via invoices and estimates
    - Discussions and cost data comparisons from contracts and suppliers
    - Web searches for local costs across the state
    - Data obtained will be used as guidance to Districts on "average costs"

    The current Commission project and district caps are below, and if additional funding becomes available, these caps would be revisited:

    - $20,000 cap per project and $20,000 cap per district

    The following seven BMPs have proposed changes and the CCAP Advisory Committee recommends the following for each of these BMPs:

    - Backyard Rain Gardens and Wetlands

    - Move to Actual Costs, capped at $2,750
- Cisterns
    - 3 tiers based on cistern size; includes foundation (gravel and concrete)
    - Accessories = increase to $1,000 cap (from $700)
    - Shipping = increase to $750 cap (from $500)
- Critical Area Planting
    - Move to Actual Cost
- Diversions and Grassed Swales
    - Move to Actual Cost
- Impervious Surface Conversion
    - Move to Actual Cost
- Permeable Pavement
    - Move to Actual Cost, costs include removal
        - Capped at $16.90/sq ft for non-vehicular
        - Capped at $23/sq ft for vehicular)
- Marsh Sill
    - Move to Actual Cost with caps
        - <=100 feet, cap at $10,000
        - >100 feet, $100/foot each additional foot

Chairman Langdon called a break at 6:58 p.m. The meeting resumed at 7:09 p.m.

11. Neuse and Tar-Pamlico Annual Progress Reports for Agriculture: Chairman Langdon recognized Ms. Allie Dinwiddie to present. A copy of the report is included as an official part of the minutes. Ms. Dinwiddie stated there are two Annual Progress Reports for Crop Year 2020.

Neuse River Basin CY2020 highlights are as follows:

- Achieved 48% nitrogen loss reduction from baseline which exceeds the 30% mandate
- Increase in 1,591 unfertilized cover crop acres
- Moderate buffer increases: four acres of 20’ buffers, six acres of 30’ buffers, and two acres of 50’ buffers
- Over $879,000 from ACSP and over $1.4M from EQIP were spent in the basin

Tar-Pamlico River Basin CY2020 highlights are as follows:

- Achieved 53% nitrogen loss reduction from baseline which exceeds the 30% mandate
- Increase in 5,298 unfertilized cover crop acres
- Increase in 103 acres of 30’ buffers and 19 acres of 100’ buffers
- Almost $354,000 from ACSP and over $836,000 from EQIP spent in the basin
- No net increase in phosphorus loss risk for six of nine qualitative indicator factors

A more detailed report will be presented at the business meeting tomorrow, which includes the methodology, the Agriculture Rules requirements, the highlights from both river basins for CY2020, updates on existing nutrient strategies, and nutrient strategies under development elsewhere in the state.

Commissioner Potter asked about the varying differences in Table 2 in the 2021 Annual Progress Report on the Neuse Agricultural Rule under the Nitrogen Reduction from Baseline column for CY2020 for Pamlico County. Ms. Dinwiddie stated the agriculture community in the Neuse basin has a collective mandate, and met that mandate in CY2020, although the Neuse Basin Oversight Committee does set reduction target percentages for each county to meet annually. Each county targets a 30% reduction in nitrogen from the baseline. In CY2020, Pamlico and Carteret County did not meet the 30% county nitrogen reduction target. Agriculture in the portion of Carteret County lying in the Neuse River Basin consists predominantly of one producer. There are limited opportunities for Carteret County to meet the 30% reduction target, as a result. In CY2020, Pamlico had an increase in reported corn acreage compared to CY2018, when the county almost met the 30% reduction target. There was also a reduction in reported soybean acreage in CY2020 from CY2018 totals in Pamlico. Additionally, there was a reporting change between CY2018 and CY2019, and this year's annual report. For the 2020 Annual Progress Reports for the Neuse and Tar-Pamlico Basins (CY2019), the Basin Oversight Committees approved a methodology change in accounting for water control structure affected acres for nitrogen reduction credit. Starting with the 2020 Annual Progress Report (CY2019) and moving forward, all water control structure contracts no longer under active maintenance were removed from reporting figures on a 10-year rolling basis. Only state and federal water control structure BMPs under active contract are now reported for nitrogen loss reduction credits, unless older structures are manually confirmed to still be operational and actively managed for water quality. Districts and Division staff have been working to establish a procedure to verify older water control structures are being appropriately managed for water quality to add these older structures back into county BMP totals for nitrogen reduction credit. Pamlico and Carteret counties are working to improve their reductions, which decreased in CY2020 primarily due to an annual transition from crops with lower nitrogen input to crops with higher nitrogen input, as well as the methodological adjustment of cumulative water control structure BMP acres that initially changed with CY2019 reporting. Commissioner Potter stated this report shows only an 11% reduction in nitrogen in Pamlico County from the baseline. This report must be re-evaluated; it states not one water control structure BMP that was installed prior to CY2010 is working and managed for water quality. Ms. Anne Coan, who is the chairwoman of the Basin Oversight Committees and Watershed Oversight Committees, stated the Committees are under pressure to defend the nitrogen reductions achieved in the basins. The Environmental Management Commission (EMC) used to hear these annual progress reports and previous members considered agriculture's annual reporting as a paperwork exercise. Ms. Coan further stated the collective nutrient reductions achieved by agriculture in the Neuse and Tar-Pamlico Basins are significant. With regards to concerns about the realistic yield estimates (RYE) and nitrogen use efficiencies (NUE) is a different discussion. Ms. Henshaw stated the Division of Water Resources (DWR) wants documentation that water control structures are being actively managed to count in the nitrogen goal reduction; either through a maintenance contract or through manual confirmation from district staff checking the structures for appropriate management. Water control structure affected acreage can be added back into the calculations for those counties that this change affected, if structure integrity and appropriate management for water quality is confirmed for older structures. Director Cox stated the Division can do an analysis into why Pamlico County is so different from the other counties.

12. **District Issues:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes.

12A. Post Approval Contract #92-2022-802: Mr. Vetter stated the request comes from Wake SWCD. The request is for a well repair contract through AgWRAP. The cooperator installed the well but two months later, there was a fracture below the casing depth. A contractor was hired, and the well was repaired before getting approval from the district.

IV. Public Comments: Chairman Langdon asked for public comments. Commissioner Willis stated the stream debris removal practice in the Ag. Cost Share Program needs to be approved sooner than later.

V. Adjournment: Meeting adjourned at 7:51 p.m.

Vernon N. Cox, Director
Division of Soil & Water Conservation, Raleigh, N.C.

Helen Wiklund, Recording Secretary

These minutes were approved by the North Carolina Soil & Water Conservation Commission on January 9, 2022.

NORTH CAROLINA
SOIL & WATER CONSERVATION COMMISSION
BUSINESS SESSION MEETING MINUTES
November 10, 2021

Department of Agriculture
Division of Soil & Water Conservation
Steve Troxler Agricultural Sciences Center
4400 Reedy Creek Road
Raleigh, NC 27607

Commission Members	Guests	Guests
John Langdon	Rick McSwain	Cayle Aldridge
Wayne Collier	Ken Parks	Ralston James
Blount Knowles	Tim Beard	Patrick Johnson
Chris Hogan - online	Tom Hill	John Beck
Chris Hughes - online	Helen Wiklund	Charles Bass III
Derek Potter	Michael Shepherd	Michelle Raquet
Mike Willis	Anne Coan	Daphne Cartner
Commission Counsel	Rob Baldwin	Tom Gerow
Phillip Reynolds	Lisa Fine	Daniel McClellan
Guests	Keith Larick	Kaitlyn Johnson
Vernon Cox	Allie Dinwiddie	Paula Day
David Williams	Scott Melvin	Eric Pare
Julie Henshaw	Joe Hudyncia	Brandy Myers
Kristina Fischer	Sandra Weitzel	Bryan Evans
Joshua Vetter	Sydney Mucha	

Chairman Langdon called the meeting to order at 9:05 a.m. Chairman Langdon inquired whether any Commission members need to declare any conflict of interest, or appearance of conflict of interest, that may exist for agenda items under consideration, as mandated by the State Ethics Act. Chairman Langdon stated the meeting guidelines. Chairman Langdon asked all participants to introduce themselves.

1. **Approval of Agenda:** Chairman Langdon asked for approval of the agenda. Commissioner Potter moved to approve the agenda and Commissioner Knowles seconded. Motion carried.

2. **Approval of Meeting Minutes:** Chairman Langdon asked for approval of the minutes.

   2A. September 21, 2021 Work Session Meeting Minutes
   2B. September 22, 2021 Business Session Meeting Minutes

Commissioner Collier moved to approve the minutes and Commissioner Willis seconded. Motion carried.

3. **Division Report:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated the following:

    - Coronavirus Update
        - Governor Cooper extends the State of Emergency Declaration through January 5, 2022
        - DSWC Operations continue with teleworking options
    - Personnel Update
        - New Hires: – Brandy Myers (Central Region Coordinator)
        - Vacancies: Administrative Specialist; Engineer I; Engineering Services Section Chief; Environmental Services Section Chief
        - New Environmental Services Section and Engineering Services Section originally known as the Technical Services Section
    - Legislative Update
        - Waiting for approved budget
    - January Commission Meeting at the Sheraton Imperial in RTP

4. **Association Report:** Chairman Langdon recognized President Blount Knowles to present. A copy of the report is included as an official part of the minutes. President Knowles stated the following:

    - 2021 Legislative Actions
    - Annual Meeting will be held January 9-11, 2022 at the Sheraton Imperial in RTP
    - Dedicated the new Soil and Water Building at the State Fairgrounds with a ribbon cutting ceremony on October 19, 2021 named after Bob Stanfield
    - Working towards in-person Leadership Development Training by the end of the year
    - Basic Training for Soil and Water Conservation Supervisors in February 2022

5. **Executive Director's Report:** Chairman Langdon recognized Mr. Bryan Evans to present. A copy of the report is included as an official part of the minutes. Mr. Evans thanked the Commission and Area Chairs for their participation. Mr. Evans stated the following:

    - Areas Report
        - All eight meetings will conclude next week with several held virtually
        - Area 1 submitted a resolution to get NRCS EWP funding the same as ECP funding and FEMA funding and Area 8 submitted a resolution to establish a Code of Ethics for Supervisors at the Annual Meeting
    - 2022 Association Elections
        - Billy Kilpatrick, supervisor from Duplin SWCD, will serve as 2nd Vice President
        - Three nominations for the Piedmont Commission Seat

6. **NRCS Report:** Chairman Langdon recognized Mr. Tim Beard to present. A copy of the report is included as an official part of the minutes. Mr. Beard stated the following:

- National Update
    - NRCS announces conservation funding opportunities for 2022 for agricultural producers and private landowners
    - COVID-19 Vaccination Requirements; all USDA employees are expected to be vaccinated by November 22, 2021
    - Agency has a return to work plan in December starting in the National office and continue with the States in January/February and down to the field offices
- State Update
    - Environmental Quality Incentives Program (EQIP) application cutoff date was October 29 and NRCS is in the process of ranking the applications
    - Climate Smart Agriculture and Forestry (CSAF) is a new program initiative that is being offered in FY2022
    - Conservation Corps of North Carolina (CCNC) signed an agreement to help landowners with small acreages to address forestry needs in North Carolina
    - Coronavirus Agricultural Relief Program (CARP) allows NRCS to provide additional financial assistance to producers that have installed conservation practices between January 1, 2021 and December 31, 2021 and additional funding will assist with the rising cost of materials
    - Emergency Watershed Protection (EWP) Program has submitted a request to the national office to make sure we have adequate funds in the program to address natural disasters in the state
    - New State Leadership Team Members
        - Yamika Bennett is the new Assistant State Conservationist in Area 3 and Michael Jones is the new State Soil Scientist
        - Stuart Lee left the State office and working at the National level and Rafael Vega is transferring to a new position

7. **Consent Agenda:** Chairman Langdon asked for approval of the consent agenda. Commissioner Knowles moved to approve the consent agenda and Commissioner Willis seconded. Motion carried.

7A. Supervisor Appointments:

- John Glenn Skinner, Jr., Carteret SWCD, filling the unexpired appointed term of Herbert Page (deceased) for 2020-2024
- Cheryl McCoy Correll, Rowan SWCD, filling the unexpired elected term of Leonard Maxwell West for 2018-2022 with an attached resignation letter from Mr. West

7B. Supervisor Contracts: 6 contracts; totaling $69,805

Copies of the reports are included as official part of the minutes.

Chairman Langdon called a break at 9:55 a.m. The meeting resumed at 10:06 a.m.

8. **Job Approval Authority:** Chairman Langdon recognized Mr. Rick McSwain to present. A copy of the report is included as an official part of the minutes.

8A. Technical Competency Requirements: Mr. McSwain stated there are three technical competency requirements presented for approval.

- Lagoon Biosolids Removal; Units = Type and Job Class I = All
- Manure/Litter Transportation Incentive; Units = Type and Job Class I = All
- Closure of Abandoned Waste Impoundment; Units = Gallons and Job Class I = Zero
    - Added under Prerequisites, "**If storage of fresh water is to be maintained after verification of waste removal, a PE must be involved with spillway design and 360 JAA is not applicable.*"

Chairman Langdon asked for a motion. Commissioner Willis moved to approve the technical competency requirements and Commissioner Potter seconded. Motion carried.

9. **Randolph Soil and Water Conservation District AgWRAP Allocation:** Chairman Langdon recognized Ms. Sydney Mucha to present. A copy of the report is included as an official part of the minutes. Ms. Mucha stated Randolph SWCD is requesting $6,670 for an AgWRAP well, the district's strategic plan has been amended.

   Chairman Langdon asked for approval of the allocation. Commissioner Willis moved to approve the allocation and Commissioner Hughes seconded. Motion carried.

10. **CCAP Average Cost List:** Chairman Langdon recognized Mr. Tom Hill to present. A copy of the report is included as an official part of the minutes. Mr. Hill stated the following:

- CCAP Cost List – Proposed Changes
    - Move toward actual costs, with caps on appropriate BMPs
- CCAP Cost List – Current Caps
- CCAP Cost List – Proposed Changes to Seven BMPs
    - Backyard Rain Gardens and Wetlands
        - Move to Actual Costs, capped at $2,750
    - Cisterns
        - 3 tiers based on cistern size; includes foundation (gravel and concrete)
        - Accessories = increase to $1,000 cap (from $700)
        - Shipping = increase to $750 cap (from $500)
    - Critical Area Planting
        - Move to Actual Cost
    - Diversions and Grassed Swales
        - Move to Actual Cost
    - Impervious Surface Removal
        - Move to Actual Cost
    - Permeable Pavement
        - Move to Actual Cost, costs include removal
            - Capped at $16.90/sq ft for non-vehicular
            - Capped at $23/sq ft for vehicular
    - Marsh Sill
        - Move to Actual Cost with caps

- <=100 feet, cap at $10,000
- > 100 feet, $100/foot each additional foot

Chairman Langdon asked for approval of the average cost list. Commissioner Potter moved to approve the list and Commissioner Knowles seconded. Motion carried.

11. **Neuse and Tar-Pamlico Annual Progress Reports for Agriculture:** Chairman Langdon recognized Ms. Allie Dinwiddie to present. A copy of the report is included as an official part of the minutes. Ms. Dinwiddie stated the following regarding Nutrient Sensitive Watersheds:

    - There are four agriculture rules for the following basins/watersheds: Neuse River Basin, Tar-Pamlico River Basin, Jordan Lake Watershed, and Falls Lake Watershed
    - Most of the existing Nutrient Sensitive Waters (NSW) strategies are in the east with the High Rock Lake Watershed NSW strategy under development in the west
    - Since rule implementation, there have been funding changes to positions assisting with NSW agriculture reporting requirements
        - Nonpoint Source Planning Coordinator position is now assigned reporting responsibilities for all existing NSW basins and watersheds
    - Agriculture community receives annual nitrogen reduction credits for implementation of the following Nutrient Reduction Best Management Practices for NRCS and ACSP: unfertilized cover crops, buffers, and water control structures (and livestock exclusion systems in Jordan and Falls Lake only)
        - Annual implementation totals of additional Nutrient Reduction Best Management Practices are also included in Annual Progress Reports
    - Data Used in Reporting
        - Farm Service Agency Annual Crop Reports
        - Fertilization rate application data
        - USDA NASS livestock data and Agriculture Census Data
        - Local knowledge and data on farmer-implemented nutrient-reducing BMPs not supported by cost share funding
    - Crop Year 2020 Highlights for Neuse and Tar-Pamlico River Basins include:
        - 48% nitrogen loss reduction in the Neuse River Basin
        - 53% nitrogen loss reduction and no net increase in phosphorus loss risk for six of the nine qualitative indicator factors in the Tar-Pamlico River Basin
        - Required nitrogen reduction in these watersheds is 30% from baseline values
    - Contributing factors for nitrogen reductions in Crop Year 2020
        - Long Term: Reduction in reported cropland acres; Reduction in reported hayland acres; Decrease in fertilization rates, and Increase in nutrient-reducing BMP implementation
        - Short Term: Annual crop shifts from high nitrogen input crops to low nitrogen input crops (e.g. corn to soybeans)
    - NSW Basins/Watersheds – Current Status and Updates
        - Neuse: Agriculture Rule was re-adopted in 2020
        - Tar-Pamlico: Agriculture Rule was re-adopted in 2020
        - Falls Lake: Upper Neuse River Basin Association is developing model scenarios for additional analysis. Additional details on modeling activities anticipated to be shared with the Commission at the March 2022 meeting.

- Jordan Lake: Rules up for revision in 2022; current goal is to finalize rules by end of 2024
- High Rock Lake Watershed: model finalized, stakeholder process was initiated and stalled during completion of the review of North Carolina's nutrient related water quality criteria; anticipate re-starting in 2022, Rules must be developed, current goal is to start drafting rules by 2022, finalize rules by the end of 2024

Commissioner Potter questioned the validity of the numbers in the report for Pamlico County and stated that he did not want the numbers in the report to be used in the wrong way; going forward long term. As the coastal representative to the Commission, Commissioner Potter expressed concerns that nitrogen reduction activities that are still occurring and associated with past efforts to implement nitrogen-reduction Best Management Practices are not being counted. Oversight Committees need to be made aware of these concerns and the continuing nitrogen reduction activities for future reference.

Ms. Henshaw stated the Division of Water Resources (DWR) produces a Falls Lake Nutrient Sensitive Waters Status Update to the Environmental Management Commission (EMC) every five years and will include the update in the January Commission packet.

Director Cox stated the Agriculture Cost Share Program (ACSP) is funded by the state to address the water quality impacts of agricultural activities in these watersheds. Our voluntary programs are an alternative to a regulatory program. The reports must be accurate so we can demonstrate that our programs are effective and continue to be viewed as a valid alternative to more regulatory actions that other entities may want to impose.

12. District Issues: Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes.

12A. Post Approval Contract #92-2022-802: Mr. Vetter stated the request comes from Wake SWCD. The request is for post approval of Contract #92-2022-802 for an AgWRAP well. The well was installed but two months later, there was a fracture below the casing depth. Mr. Brown contacted the district and the contractor, but Division staff was not notified. Wake Supervisor Patrick Johnson and Mr. John Beck are in attendance from the district. Mr. Beck stated Mr. Brown did everything he was supposed to do in the process and contacted the district and the well driller. Mr. Brown is asking for a minimal amount for the drilling repair. The entire irrigation system is being used and successful.

Chairman Langdon asked for approval of the contract. Commissioner Knowles moved to approve the request and Commissioner Hughes seconded. Motion carried.

IV. Public Comments: Chairman Langdon asked for public comments. Chairman Langdon thanked everyone present for adjusting their schedules.

Commissioner Collier stated he is impressed by the quick response from the Association and district staff to questions from the Commission and best wishes to our Chairman, as he undergoes surgery.

V. Adjournment: Meeting adjourned at 11:02 a.m.

Vernon N. Cox, Director
Division of Soil & Water Conservation, Raleigh, N.C.

Helen Wiklund, Recording Secretary

These minutes were approved by the North Carolina Soil & Water Conservation Commission on January 9, 2022.

NORTH CAROLINA
SOIL & WATER CONSERVATION COMMISSION
WORK SESSION MEETING MINUTES
September 21, 2021

Department of Agriculture
Division of Soil & Water Conservation
Macon County Soil & Water Conservation District Office
191 Thomas Heights Road
Franklin, NC 28734

Commission Members	Guests	Guests
John Langdon	Kristina Fischer	Keith Larick
Wayne Collier	Joshua Vetter	Eileen Langdon
Blount Knowles	Helen Wiklund	Allie Dinwiddie
Chris Hogan	Rick McSwain	George Teague
Chris Hughes	Bryan Evans	Scott Melvin
Derek Potter	Cayle Aldridge	Gail Hughes
Mike Willis - online	Ralston James	Ken Parks
Commission Counsel	Lisa Fine	Eric Pare
Phillip Reynolds	Tom Hill	Fredrick Cox
Guests	Sydney Mucha	Sarah Clancy
Vernon Cox	Millie Langley	Doug Johnson
David Williams	Rudy Langley	Sandra Weitzel
Julie Henshaw	Jamey Walker	Daphne Cartner

Chairman Langdon called the meeting to order at 6:49 p.m. Chairman Langdon inquired whether any Commission members need to declare any conflict of interest, or appearance of conflict of interest, that may exist for agenda items under consideration, as mandated by the State Ethics Act. Chairman Langdon stated the meeting guidelines.

1. **Approval of Agenda:** Chairman Langdon asked for comments on the agenda. None were declared.

2. **Approval of Meeting Minutes:** Chairman Langdon asked for comments on the minutes. Commissioner Collier stated the minutes are in order.

3. **Division Report:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated the report will be presented tomorrow.

4. **Association Report:** Chairman Langdon recognized President Blount Knowles to present. A copy of the report is included as an official part of the minutes. President Knowles stated the report will be presented tomorrow.

5. **Executive Director's Report:** Chairman Langdon recognized Mr. Bryan Evans to present. A copy of the report is included as an official part of the minutes. Mr. Evans stated the report will be presented tomorrow.

6. **NRCS Report:** Chairman Langdon asked if Mr. Beard will be in attendance to present at the meeting tomorrow. Director Cox stated Mr. Beard will present the NRCS report tomorrow as a virtual participant. A copy of the report is included as an official part of the minutes.

7. **Consent Agenda:** Chairman Langdon recognized Mr. David Williams and Mr. Joshua Vetter to present. A copy of the reports is included as an official part of the minutes.

   7A. Supervisor Appointments:

   - Charles Ballard, Avery SWCD, filling the unexpired elected term of Shirley Ann Coleman for 2018-2022 with an attached resignation letter from Ms. Coleman
   - Shirley Ann Coleman, Avery SWCD, filling the unexpired appointed term of Jack Wiseman for 2018-2022 with an attached resignation letter from Mr. Wiseman
   - James Tyler Ross, Buncombe SWCD, filling the unexpired elected term of William Hamilton (deceased) for 2018-2022

   Chairman Langdon stated on page 2 of the supervisor appointment form, the answers should be filled out in more detail. Commissioner Willis stated the Commission does not know all the candidates, and the districts need to be more involved in vetting a candidate. Mr. Ralston James stated the supervisor appointment of Mr. Ray Briggs, a candidate from Guilford SWCD, is missing from the Consent Agenda. Chairman Langdon agreed to include the Guilford supervisor appointment to the Consent Agenda.

   7B. Supervisor Contracts: 3 contracts; totaling $33,955

8. **Durham Supervisor Appointment:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox reminded the Commission that the Durham supervisor appointment was removed from the July Commission agenda. In the interim, two additional individuals have indicated their interest in being appointed to the vacancy resulting from the resignation of Ms. Laura Marie Davis from the Durham District Board. The Commission has the authority to appoint any resident of a district to their local Board who is willing to serve in that capacity. The qualifications of the three individuals who have applied to fill the vacancy are being presented to the Commission. Chairman Langdon and Commissioner Collier both noted the importance of keeping agricultural representation on local district boards.

9. **Job Approval Authority:** Chairman Langdon recognized Ms. Sandra Weitzel and Mr. Rick McSwain to present. A copy of the report is included as an official part of the minutes.

9A. **Applications:** Ms. Weitzel stated there are six applications for Job Approval Authority and five are for NRCS equivalent and one is a new application. The applications have been reviewed to verify technical competency for Job Approval Authority (JAA). Ms. Weitzel stated that with Mr. Young's retirement, Ms. Weitzel will be responsible for administering the JAA program.

9B. **Technical Competency Requirements:** Mr. McSwain stated the technical competencies are broken down into Job Classes I-V with more detailed information for each class and are highlighted in red. Previously, Job Class I read *All*, which meant the applicant could request JAA for everything. The remaining BMPs in red, on page 1, will be reviewed for JAA adoption by the JAA Workgroup.

Director Cox stated Mr. McSwain will serve as interim chairman for the JAA Workgroup upon Mr. Young's retirement. Mr. Scott Melvin will serve as interim Technical Services Section Chief.

Chairman Langdon requested Mr. McSwain to call him directly to be notified of all upcoming meetings and activities of the workgroup.

10. **Proposed Amendments for Subchapter 59A Organization and Operation Rules:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated the draft rules were presented at the May Commission meeting to implement supervisor training requirements as specified in legislation adopted in 2018. The meeting schedule for the public hearings was presented, and there were no public comments received during the public hearings. One written comment was received, which stated the number of credits, which is currently six per term should be changed to six per year. Director Cox stated the number of hours required by term is established by statute and any changes to this requirement is beyond the authority of the Commission.

    There was much discussion about the requirement to attend the basic training course for District Supervisors. Counsel Reynolds stated that any motion to approve the draft rules should include language to delegate authority to Division staff to approve any technical corrections that may be required by the Rules Review Commission Counsel.

    There was more discussion that the School of Government (SOG) is the one entity that provides supervisor training; however, the Commission is not bound to the School of Government (SOG) training and can select another entity to provide this training. Commissioner Collier stated there needs to be required training for supervisors, as our programs and environment change. Commissioner Collier stated he will make a motion to approve subchapter 59A and delegate authority to Division staff to approved technical changes that may be required by the Rules Review Commission Counsel.

11. **Tropical Storm Fred Report:** Chairman Langdon recognized Ms. Julie Henshaw to present. A copy of the report is included as an official part of the minutes. Ms. Henshaw stated the key highlights include:

    - Requested funds have been allocated to five of the seven impacted districts

- Director Cox approved the modifications to the Disaster Pasture Renovation BMP to include hayland

12. **Henderson Soil and Water Conservation District Impaired/Impacted Allocation:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes. Mr. Vetter stated the allocation is for impaired/impacted funds. The funds were requested in the Henderson District's strategic plan. The requested amount is $50K, and the allocation is $10,454, which comes from unallocated cost share funds.

13. **CCAP Ownership Report:** Chairman Langdon recognized Mr. Tom Hill to present. A copy of the report is included as an official part of the minutes. Mr. Hill stated the current requirements for residential ownership are 5 years, non-residential is 10 years, and abandoned well closure is a one-year maintenance period. Projects funded by grants have the same maintenance period. There are more maintenance issues with some BMPs, particularly vegetation and erosion issues due to storm events. Excluding abandoned well closures from the analysis, the Entity to Individual ratio is about 60% to 40%.

14. **District Issues:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes.

    14A. CCAP Stream Restoration Policy Exception Request: Mr. Vetter stated this is an exception request from Guilford County. Included in your packet is a letter from the district, a letter from the design engineer, as well as pictures highlighting the problem, and the engineer's design. This is a buffer variance request for a sewer line pipe. Ms. Millie Langley, Mr. Jamey Walker, and Mr. George Teague from Guilford were present to answer questions.

15. **Onboard Training for New District Staff:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes. Mr. Vetter stated the purpose of the onboard training is to offer training, tools, and materials for new district staff about the Cost Share Programs.

IV. Public Comments: No public comments.

V. Adjournment: Meeting adjourned at 8:43 p.m.

Vernon N. Cox, Director
Division of Soil & Water Conservation, Raleigh, N.C.

Helen Wiklund, Recording Secretary

These minutes were approved by the North Carolina Soil & Water Conservation Commission on November 10, 2021.

NORTH CAROLINA
SOIL & WATER CONSERVATION COMMISSION
BUSINESS SESSION MEETING MINUTES
September 22, 2021

Department of Agriculture
Division of Soil & Water Conservation
Macon County Soil & Water Conservation District Office
191 Thomas Heights Road
Franklin, NC 28734

Commission Members	Guests	Guests
John Langdon	Rick McSwain	Kayla McCoy
Wayne Collier	Ken Parks	Adam Simon
Blount Knowles	Tim Beard	Daniel McClellan
Chris Hogan	Tom Hill	Allie Dinwiddie
Chris Hughes	Sydney Mucha	Gail Hughes
Derek Potter	Michael Shepherd	Mark Walton
Mike Willis - online	Sandra Weitzel	Eric Pare
Commission Counsel	Fredrick Cox	Annette Adams
Phillip Reynolds	Tom Gerow	Sarah Clancy
Guests	Anne Coan	Lisa Fine
Vernon Cox	James Ferguson	Keith Larick
David Williams	Doug Johnson	Randy Cabe
Julie Henshaw	Eileen Langdon	Ryan Manning
Kristina Fischer	Millie Langley	Rudy Langley
Joshua Vetter	Jamey Walker	Bill Yarborough
Helen Wiklund	George Teague	James Massey
Kaleb Rathbone	Jeff Young	Rob Baldwin
Bryan Evans	Travis Smith	Shelby Cook
Cayle Aldridge	Scott Melvin	Wilkes SWCD
Ralston James	Robert Moore	Daphne Cartner

Chairman Langdon called the meeting to order at 9:00 a.m. Chairman Langdon inquired whether any Commission members need to declare any conflict of interest, or appearance of conflict of interest, that may exist for agenda items under consideration, as mandated by the State Ethics Act. Chairman Langdon stated the meeting guidelines.

1. **Approval of Agenda:** Chairman Langdon asked for approval of the agenda. Commissioner Potter moved to approve the agenda and Commissioner Hughes seconded. Motion carried.

2. **Approval of Meeting Minutes:** Chairman Langdon asked for approval of the minutes.

2A. July 20, 2021 Work Session Meeting Minutes
2B. July 21, 2021 Business Session Meeting Minutes
2C. September 8, 2021 Business Session Meeting Minutes

Commissioner Collier moved to approve the minutes and Commissioner Knowles seconded. Motion carried.

3. **Division Report:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated the following:

- Coronavirus Update
  - Governor Cooper extends the State of Emergency Declaration through November 2021
  - DSWC Operations continue with teleworking options
- Personnel Update
  - Reorganization of Technical Services Section
- JAA Update
  - Sandra Weitzel will handle training coordinator duties
    - New employee curriculum
    - JAA priorities by Area
    - Identify training needs/resources
    - Process JAA applications and coordinate review/approval
    - Maintain training calendar and communicate training opportunities to District/Division staff
- Legislative Update
  - Waiting for approved budget
- EWP Contribution Agreement with NRCS
  - Division will provide assistance for field data surveys and damage survey reports for impacted areas due to Tropical Storm Fred

Assistant Commissioner, Mr. Kaleb Rathbone, welcomed everyone to Macon County. Mr. Rathbone stated North Carolina is a very diverse agricultural state. This was demonstrated by the tours to Mr. Brown and Mr. Hutchins farms yesterday.

- Successful Mountain State Fair in September, but attendance was down
- Legislative Update
  - Funds will be available to assist farmers for flood relief after Tropical Storm Fred
  - NCDA is working to help supplement those that are receiving funds from Federal programs
  - State Budget will hopefully provide money for the Stream Debris Removal Program and authorize an ongoing, recurring program
  - Commissioner Troxler, Speaker Moore, and Representative Gillespie visited the Cruso community and saw the storm and debris impacts to the community

There was discussion about the need to understand the impacts from the stream debris, which is an issue across the state. The waterways need to be open and unrestricted. The Stream Debris Removal Program is not about cleaning up but about preparing for the next storm.

- November Meeting at the Steve Troxler Agricultural Sciences Center in Raleigh
    - Agricultural Sciences Center Tour on Tuesday, November 16, at 3 p.m.
    - Work Session; Tuesday at 6 p.m., and Business Meeting; Wednesday at 9 a.m.

Chairman Langdon asked everyone to introduce themselves.

4. **Association Report:** Chairman Langdon recognized President Blount Knowles to present. A copy of the report is included as an official part of the minutes. President Knowles stated the following:

    - Annual Meeting on January 9-11, 2022 at the Sheraton Imperial in RTP
    - Soil and Water Building at the State Fairgrounds will be completed by October 14 with a ribbon cutting ceremony
    - Leadership Development Training to begin by the end of the year
    - National Executive Director's Conference in Asheville on September 27-30, 2021

5. **Executive Director's Report:** Chairman Langdon recognized Mr. Bryan Evans to present. A copy of the report is included as an official part of the minutes. Mr. Evans stated the following:

    - Legislative Update
        - Streamflow Rehabilitation Program is being proposed to address statewide stream maintenance needs and additional funding for the Community Conservation Assistance Program (CCAP) is requested to help address stormwater treatment as it relates to water quality and flooding
    - Western Flooding
        - Surveyed the damage from Tropical Storm Fred in September and participated in training events in Haywood County
        - Providing staff resources of District personnel to help complete Field Data Reports (FDR) and Damage Survey Reports (DSR) with local staff from Haywood, Buncombe and Transylvania counties

6. **NRCS Report:** Chairman Langdon recognized Mr. Tim Beard to present. A copy of the report is included as an official part of the minutes. Mr. Beard stated the following:

    - National Update
        - Announced appointment of new Associate Chief Louis Aspey
    - State Update
        - Hired 46 entry-level employees
        - On-site Professional Development Training scheduled from October 4-15 across the state
        - Emergency Watershed Protection (EWP) Program is working with local communities to recover from Tropical Storm Fred
        - Announced the 2022 Environmental Quality Incentives Program (EQIP) application deadline is October 29, 2021
        - Coronavirus Agricultural Relief Program (CARP) Update

- First quarter of FY2022, NRCS will provide additional funds for seven practices that have been impacted by increases in material prices. Additional payments will be issued to producers that have implemented these practices between January 1, 2021 and December 31, 2021

7. **Consent Agenda:** Chairman Langdon asked for approval of the consent agenda. Commissioner Potter moved to approve the consent agenda and Commissioner Hughes seconded. Motion carried.

   7A. Supervisor Appointments:

   - Charles Ballard, Avery SWCD, filling the unexpired elected term of Shirley Ann Coleman for 2018-2022 with an attached resignation letter from Ms. Coleman
   - Shirley Ann Coleman, Avery SWCD, filling the unexpired appointed term of Jack Wiseman for 2018-2022 with an attached resignation letter from Mr. Wiseman
   - James Tyler Ross, Buncombe SWCD, filling the unexpired elected term of William Hamilton (deceased) for 2018-2022
   - Ray Briggs, Guilford SWCD, filling the unexpired elected term of Antoinette Weaver for 2020-2024 with an attached resignation letter from Ms. Weaver

   7B. Supervisor Contracts: 3 contracts; totaling $33,955

   A copy of the report is included as an official part of the minutes.

Chairman Langdon called a break at 9:53 a.m. The meeting resumed at 10:07 a.m.

8. **Durham Supervisor Appointment:** Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox reminded the Commission that the Durham supervisor appointment was removed from the July Commission agenda. In the interim, two additional individuals have indicated their interest in being appointed to the vacancy resulting from the resignation of Ms. Laura Marie Davis from the Durham District Board. The Commission has the authority to appoint any resident of a district to their local Board who is willing to serve in that capacity. The qualifications of the three individuals who have applied to fill the vacancy are being presented to the Commission.

   Chairman Langdon asked for a motion. Commissioner Willis moved to approve Kenyon Patrick Browning and Commissioner Hughes seconded. Motion carried.

9. **Job Approval Authority:** Chairman Langdon recognized Mr. Jeff Young to present. A copy of the report is included as an official part of the minutes.

   9A. Applications: Mr. Young stated there are six applications for JAA being brought before the Commission.

   Chairman Langdon asked for approval of the applications. Commissioner Hughes moved to approve the applications and Commissioner Potter seconded. Motion carried.

9B. Technical Competency Requirements: Mr. Young stated there are four technical competency requirements to be considered by the Commission. The JAA Workgroup recommends that these practices, due to their complexity, include Job Classes for these four practices. The new information regarding job classes is highlighted in red.

Chairman Langdon asked for approval of the technical competency requirements. Commissioner Hughes moved to approve the technical competency requirements and Commissioner Potter seconded. Motion carried.

Mr. Young stated there are 34 practices remaining for which technical competency requirements must be identified. The yellow highlighted practices do not require a signature for design approval, i.e., wells. The green highlighted practices relate to irrigation and may need certification by certified irrigation designer. The red highlighted practices are heavily engineered as it relates to structures and public safety/health. The JAA Workgroup will have to consider whether it is appropriate to grant job approval authority for these practices to non-engineers. The BMPs highlighted with the white background will be the next to review Technical Competency Requirements.

Mr. McSwain stated he has been part of the JAA Workgroup for two years. The transition will be smooth, and the workgroup will keep the process going after Mr. Young's retirement.

Chairman Langdon stated he would like Mr. McSwain to call him to remind him of any upcoming meetings and to take personal time when he misses a meeting to give him an update.

Mr. Shepherd stated he currently serves as president on the board of directors for the Irrigation Association and will assist with competency requirements for irrigation practices.

10. Proposed Amendments for Subchapter 59A Organization and Operation Rules: Chairman Langdon recognized Director Vernon Cox to present. A copy of the report is included as an official part of the minutes. Director Cox stated at the May meeting the Commission approved draft rules that proposed implementing supervisor training requirements as adopted by the Legislature. The public hearing schedule for the rules was presented. There was one written public comment that was received that stated, "*the recommendation that the number of credits, currently six per term, should be changed to six per year*." The response to this comment is that the number of training hours required per term is established by Statute and any change to this requirement is beyond the authority of the Commission. The rules being presented to the Commission for final adoption remain unchanged from those presented to the Commission at their May meeting.

Counsel Reynolds recommended that additional language be added to the rule based on concerns stated by Commissioner Potter and Commissioner Willis during the work session, about what basic training is, its evolution, and potential board changes from year to year. Mr. Reynolds stated by adding the following two paragraphs, it will clarify Rule 02 NCAC 59A .0202.

(e) The Commission shall review and approve Basic Training curriculum annually and publish the approved curriculum on its web site.
(f) Basic Training Credits shall meet the requirements contained in Rule 02 NCAC 59A .0204(a).

Commissioner Hughes moved to approve the rules with the additional language proposed by Counsel and Commissioner Knowles seconded. Commissioner Collier suggested that Commissioner Hughes rephrase the motion by stating, "*I move that the Commission adopt the Hearing Officer's Report, and approve the proposed rules, as amended, and delegate to staff to make any necessary technical changes requested by Counsel for the Rules Review Commission."* Commissioner Hughes agreed to the restated motion.

Chairman Langdon asked for comments. Commissioner Potter stated he is not opposed to the requirement for six hours of training but opposes the rule because he is against the Commission telling a local district what training they need.

Commissioner Willis stated the amended verbiage has resolved any issues with tying the Association to the School of Government. Commissioner Willis is for training and the district boards need to encourage newly elected or appointed supervisors to take training. It is necessary to not tie the supervisor to specific training.

Chairman Langdon asked the Commissioners to respond by voice vote whether they are in favor of the motion or opposed to the motion. All Commissioners voted in favor of the motion, except Commissioner Potter who was opposed.

11. **Tropical Storm Fred Report:** Chairman Langdon recognized Ms. Julie Henshaw to present. A copy of the report is included as an official part of the minutes. Ms. Henshaw stated that 7 counties were impacted by T.S. Fred and were eligible to request disaster recovery funds. The Commission approved several practices for the T.S. Fred Disaster Response Program at its September 8, 2021 meeting. The Commission delegated authority to the Director to approve modifications needed for BMP implementation and to approve allocations to all eligible districts. Since the September 8 Commission meeting, the Director approved revisions to the Disaster Pasture Renovation BMP, to include hayland. Five of the seven counties requested and received allocations ranging from $24K-$53K.

12. **Henderson Soil and Water Conservation District Impaired/Impacted Allocation:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes. Mr. Vetter stated the allocation is for impaired/impacted funds. The funds were requested in the Henderson District's strategic plan, but a survey was submitted incorrectly in Formsite. The requested amount is $50K, and the proposed allocation is $10,454, which comes from unallocated cost share funds.

    Chairman Langdon asked for approval of the allocation. Commissioner Hughes moved to approve the allocation and Commissioner Potter seconded. Motion carried.

13. **CCAP Ownership Report:** Chairman Langdon recognized Mr. Tom Hill to present. A copy of the report is included as an official part of the minutes. Mr. Hill presented the following:

    - Below is the list of requirements for maintenance of CCAP practices
        - 10-years for non-residential properties (Entity)
        - 5-years for residential properties (Individual)
    - Abandoned well closures have a 1-year maintenance period

- All the contracts are in CS2 and presented data from 2017-2021
- 51 non-residential and 33 residential properties participated in the CCAP Program from 2017 – present
- Practices favored by ownership
    - Stream restoration/stabilization: Individual – 15; Entity – 8
    - Marsh sills: Individual – 2; Entity – 20
- Spot check data shows BMPs out of compliance, the number of BMPs spot checked, and BMPs needing maintenance
- Some practices showed maintenance issues were related to education or minor erosion issues
    - Breakdown: Individual – 3; Entity – 25
- Overall analysis shows higher maintenance needs associated with vegetation and erosion issues caused by storm events
- Noted that the variance in ownership and maintenance requirements has been consistent since the inception of the program and is primarily due to the type of BMP being installed.

14. **District Issues:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes.

    14A. CCAP Stream Restoration Policy Exception Request: Mr. Vetter stated the request comes from the Guilford SWCD. The request is for a buffer variance due to the proximity to a sewer line.

    Chairman Langdon asked for approval of the policy exception request. Commissioner Hughes moved to approve the policy exception request and Commissioner Hogan seconded. Motion carried.

15. **Onboard Training for New District Staff:** Chairman Langdon recognized Mr. Joshua Vetter to present. A copy of the report is included as an official part of the minutes. Mr. Vetter explained how the cost share program implements onboard training for new district staff. The goal is to provide training to new district staff, which is an individualized one-on-one training, within 60 days of hire. A standard training template is used. Additional training opportunities are offered throughout the year. Other new training resources available include a Contract Entry Guidance Document and Video, a Contracting Process Flow Chart, an updated BMP web page with summary tables, BMP common component tables and a Receipts Summary Sheet. Cost Share staff is also working on a Request for Payment Guidance Document. All of this information is available on the Division's website.

IV. Public Comments: Chairman Langdon suggested that Director Cox direct the Area Coordinators to submit an update on behalf of the Area Chairs about the activities and plans for their area. Commissioner Willis stated a representative from the District Employees Association (DEA) should similarly be asked to submit a report about what District employees see as needs for the districts. Director Cox stated there should be a discussion about the frequency of submitting additional reports. Commissioner Hughes suggested a report can be submitted from the spring and fall area meeting minutes. Chairman Langdon requested a meeting to discuss this issue with Director Cox, Deputy Director Williams and Mr. Bryan Evans of the Association.

Chairman Langdon stated the Commission has recommended that at least two active farmers should serve on each district board, however, not all districts have the talent. The Durham SWCD provided three applicants for supervisor appointment, and the individual that was chosen met the farming criteria. The Commission's justification for the agricultural representative is based upon the importance of the Commission's Agriculture Cost Share Program and AgWRAP Program.

Ms. Sandra Weitzel stated the District Employees Association (DEA) is involved with the Job Approval Authority (JAA) process. Ms. Weitzel has had meetings with Mr. Jason Byrd, who is very active with the training component, the BMPs per area, and sits on the Job Approval Authority (JAA) Workgroup.

Mr. James Ferguson stated that Haywood County was hit hard by Tropical Storm Fred. Mr. Ferguson stated that when he was Area Chair, Governor Hunt called to get information about what the water level was in every hog lagoon in the state and asked for the information within ten days. Chairman Langdon stated he owns four hog lagoons, which must be surveyed, and the records are kept on a weekly basis, which is inspected by the Division of Water Resources.

Mr. Keith Larick stated on behalf of Farm Bureau, there has been a lot of work completed at Howard Brown's farm to install manageable BMPs to demonstrate water quality protections are in place. Farm Bureau is working on funding for additional programs and flood mitigation. When putting practices and programs in place, it is important to get input from districts, extension staff, and landowners.

Commissioner Collier stated as a member of the board of Farm Bureau, we do not always have a voice in those discussions, and thanks to the Association and Farm Bureau, they have been a good advocate to support the Commission.

Chairman Langdon stated it is important for the Commission to improve and work together as a team. He added when Mr. James Ferguson was Commission chair, and Governor Hunt was nominated for the Hall of Fame, we worked across the aisle. There would not be a Division, Commission, or Cost Share Programs today, if not for Mr. James Ferguson and Governor Hunt. We need to unite and strive to be a team. Chairman Langdon stated we need to have supervisor training, so the Legislators are informed, and district supervisors are engaged.

Chairman Langdon thanked everyone for their participation and for our partners for being here.

V. Adjournment: Meeting adjourned at 11:41 a.m.

Vernon N. Cox, Director
Division of Soil & Water Conservation, Raleigh, N.C.

Helen Wiklund, Recording Secretary

These minutes were approved by the North Carolina Soil & Water Conservation Commission on November 10, 2021.

Coronavirus Update: Eff. 10/4/21

- Governor Cooper extends State of Emergency Declaration through January 5, 2022.

- DSWC Operations
  - Returning to Office with Teleworking Option

Personnel

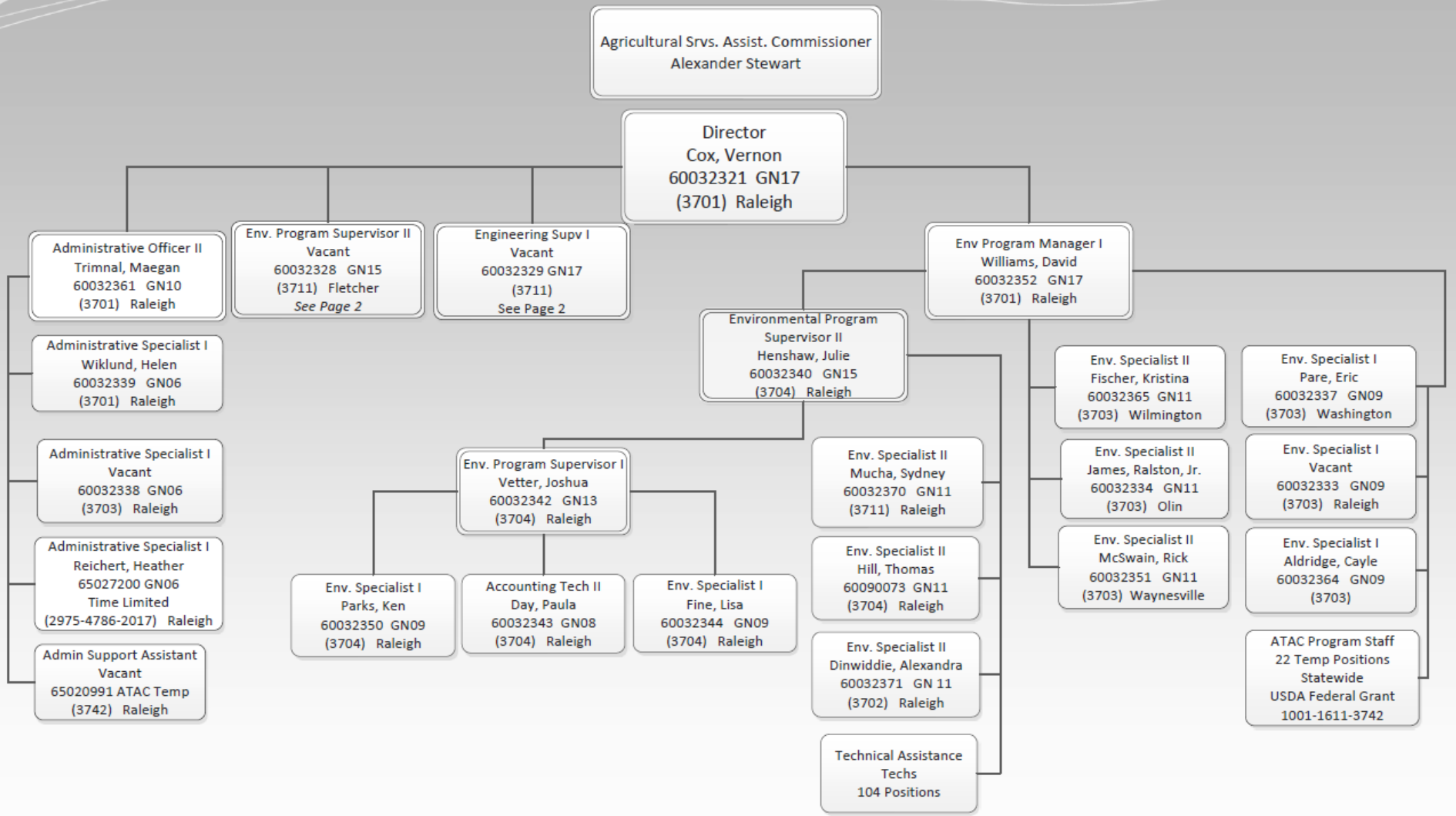
- **New Hires:**
  - Area Coordinator (Central Region) – Brandy Myers

- **Vacancies:**
  - Administrative Specialist I (Bria Wortham) – Offer
  - Engineer I (Saad Masood) - Offer
  - ***Engineering Services Section Chief*** *(Engineering Supervisor I)* – Advertise
  - ***Environmental Services Section Chief*** (Environmental Program Supervisor II) – Advertise

NCDA&CS Division of Soil & Water Conservation

November 1, 2021

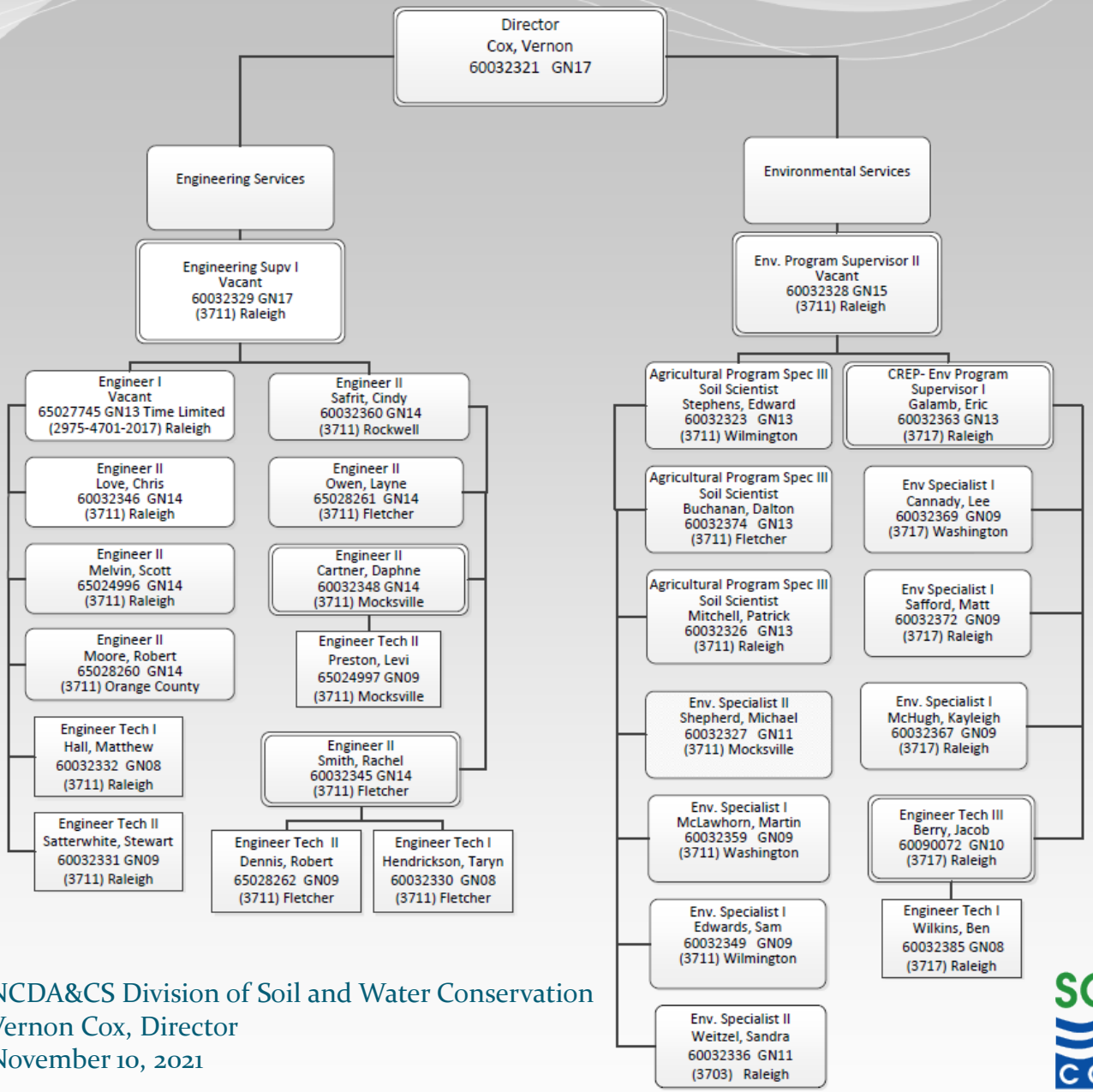
ATTACHMENT 3



NCDA&CS Division of Soil & Water Conservation

November 1, 2021

ATTACHMENT 3



Legislative Update

- TBD…

January Meeting

- Durham (Sheraton Imperial @ RTP)
- Work Session: January 9th (9:30 a.m.)
- Business Meeting: January 9th (3:00 p.m.)

ATTACHMENT 4

Association Report to the Commission

November 10, 2021

2021 Legislative Actions

At the time of this report, we are patiently waiting on the budget to be released. We have heard that that may happen the first week of November. Hopeful Soil and Water Conservation Districts will get some of our requests.

Association 2022 Annual Meeting

The Executive Committee decided to move forward with an in-person Annual meeting on January 9-11, 2022. We are currently working on the contract with Sheraton Imperial at Research Triangle Park, as they have been a very accommodating facility to work with in the past. Registration is open and planning is in progress.

State Fair Building

We spent this year's State Fair in the new Bob Stanfield Natural Resource Center. A ribbon cutting was held on October 19 and Commissioner Troxler revealed the naming of the building in honor of former SWCD Supervisor Bob Stanfield. Bob was a Rockingham Supervisor and was deeply involved in the construction of this building and several others in Heritage Circle.

Leadership Development

We are working toward an in-person delivery of this training with plans to conduct it by the end of 2021.

Basic Training for Soil and Water Conservation Supervisors

Registration is slated to be out by mid-November. The dates are February 1 – Pitt County Ag Center, February 8 (TBD Mountain Region), and February 22 (TBD Piedmont Region).

Association Executive Director's

Report to the Commission

November 10, 2021

Areas Report

The 2021 Area Chairs and officers have done a great job this year, again dealing with COVID. The Fall meetings are coming to a close. Area 3 and 4 held their Fall meetings in-person and the others were virtual.

- Area 1 submitted a resolution for consideration at the Annual Meeting to get USDA/NRCS Emergency Watershed Protection funding authority to match FEMA and ECP funding. This would allow for work to begin sooner, prior to actual contracting. If approved, this resolution will be forwarded to NACD for help on the national level.
- Area 8 submitted a resolution for consideration at the Annual Meeting about establishing a Code of Ethics for Supervisors for consideration at the Annual meeting.
- There were many great presentations made that contributed to District development and Supervisor Training Credits.
    - Area 1 – Climate smart ag and forestry, Area 2 – Emergency Management director presented on flood recovery and the Districts assistance, Area 3 – Berry production in Ag, Area 4 – Conservation Easements, Area 5 -, Area 6 – Lagoon Closure Practices, Area 7 – Irrigation and Effects on Groundwater, and Area 8 – Wet Prairie Easement.

2022 Association Elections

- 2nd Vice President - Area 6 nominated Billy Kilpatrick from the Duplin SWCD to serve as 2nd VP for the Association. Being there is a nomination from the region, nominations are not selected from the floor.
- Piedmont Commission Seat
    - Area 3 has nominated Bill Alston from Randolph SWCD
    - Area 4 is slated to nominate David Harris from Durham SWCD
    - Area 7 has nominated James Lamb from Sampson SWCD

Starting in 2022, scheduled calls will be held with Area Chairs

Natural Resources Conservation Service (NRCS)

North Carolina - The Update

National Update

NRCS Announces Conservation Funding Opportunities for 2022

USDA is announcing fiscal year 2022 assistance opportunities for agricultural producers and private landowners for key programs, such as the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and the Agricultural Conservation Easement Program (ACEP). While NRCS accepts applications for these programs year-round, producers and landowners should apply by state-specific, ranking dates to be considered for this year's funding. State-specific ranking dates for all programs are available. Applications received after ranking dates will be automatically deferred to the next funding period.

COVID-19 Vaccination Requirements

To limit the spread of COVID-19, all USDA employees are expected to be fully vaccinated (meaning at least two weeks past the final dose) by no later than November 22, 2021. For more information on USDA's COVID vaccination requirements, please visit www.usda.gov.

State Update

Environmental Quality Incentives Program (EQIP)

North Carolina (NC) is taking applications for EQIP and RCPP-EQIP to assist landowners with addressing natural resource concerns on their farms. These programs are designed to provide technical and financial assistance to producers to address soil erosion, water quality, water quantity, etc. The deadline to submit an application for either of these programs is October 29, 2021. Interested participants are encouraged to submit an application to their local NRCS field offices. NRCS services every county in the state and has personnel available to assist at any time. The NRCS staff that services your county may be found by accessing the following webpage https://www.nrcs.usda.gov/wps/portal/nrcs/main/nc/contact/ .

Climate Smart Agriculture and Forestry

North Carolina will be offering assistance in FY2022 to address climate change through a new initiative called Climate Smart Agriculture and Forestry (CSAF). This program is designed to provide financial assistance to install conservation practices that will assist in the reduction of greenhouse gasses and improve carbon sequestration on crop land, forestland, and pasture land. At this time a signup date has not been announced but all interested participants are encouraged to submit an application to their local NRCS office as soon as possible in order to participate in this opportunity.

Conservation Corps of North Carolina (CCNC)

In an effort to address a backlog of forestry needs on many of our forested acres in North Carolina, NRCS has entered into an agreement with the Conservation Corps of North Carolina (CCNC). This agreement is designed to target small acreage forest land that has received a contract with NRCS to install conservation practices such as prescribed burns, firebreaks, or brush management. This program will hep landowners with small acreage to secure assistance to perform the needed work. The CCNC will be providing assistance to landowners located in the Piedmont and Coastal Region of North Carolina. All Participants are encouraged to contact Mr. Randolph Harrison, Forestry Cooperative Project director for CCNC, for assistance at (985)-275-9322 or by e-mail at rharrison@conservationlegacy.org.

Coronavirus Agricultural Relief Program (CARP)

NRCS will be offering additional financial assistance to producers that have installed conservation practice within a NRCS contract or will be installing conservation practices between January 1, 2021 and December 31, 2021, to assist with the rising cost of materials that are used for the installation of NRCS conservation practices. This effort is apart of the Coronavirus Agricultural Relief Payment (CARP). NC has begun processing CARP payments to its eligible landowners, We are projected to payout additional

assistance more than $2 million to assist landowners during these times. For additional assistance please contact Julius George, Assistant State Conservationist for Programs at 919-873-2104 or via e-mail at julius.george@usda.gov.

Emergency Watershed Protection Program (EWP)

North Carolina (NC) is susceptible to different types of natural disasters. Notably, hurricanes often have a large impact on NC's watersheds along with other events like tornados or flooding that can also occur. The Emergency Watershed Protection (EWP) Program supports state efforts to strengthen NC's resilience to these natural disasters. During Fiscal Year 2022, NC will be supporting 34+ EWP agreements across several events; Hurricane Florence (on-going projects), Hurricanes Zeta/Eta, the Graham County Flood, and Tropical Storm Fred. The agreements represent over 200 EWP sites where recovery will be addressed through EWP projects. In addition, NRCS North Carolina is working on acquiring 12 parcels for EWP Floodplain Easements from Lenoir, Jones, Craven, Duplin, Columbus, and Cumberland counties, a total of 474.6 acres. For more information on EWP and EWP Sponsor Trainings, contact Jim Kjelgaard via email at jim.kjelgaard@usda.gov.

New State Leadership Team Members

NRCS North Carolina is very pleased to welcome two new members to our leadership team.

Yamika Bennett is the new Assistant State Conservationist for Field Operations in Area 3, based in Goldsboro. Yamika holds a B.S. from Virginia State University and an M.S. from the University of Tennessee, and has been an NRCS employee for almost 18 years, most recently serving as Acting Assistant State Conservationist for Programs.

Michael Jones is the new State Soil Scientist for North Carolina. Michael holds a graduate degree from Virginia Tech and has worked with NRCS for close to two decades as a Soil Conservationist, District Conservationist, and Soil Data Quality Specialist.

Contacts:
State Conservationist—Timothy A. Beard
(Tel) 919.873.2100
State Public Affairs—Kathryn Fidler
(Tel) 202.236.4027
(Email) Kathryn.Fidler@usda.gov

ATTACHMENT 7A

DIVISION OF SOIL AND WATER CONSERVATION
North Carolina Department of Agriculture & Consumer Services
1614 Mail Service Center • Raleigh, NC 27699-1614
919.733.2302 • www.ncagr.gov/swc/

INTERNAL USE ONLY:
Appointed / Elected Seat
Current Term: 2020-2024

NOMINATION FOR APPOINTMENT OF SUPERVISOR

Complete and submit online on your district's SharePoint page; keep original for your file

The supervisors of the Carteret Soil and Water Conservation District of Carteret County, North Carolina have nominated the individual listed below for APPOINTMENT as a district supervisor in accordance with N.C.G.S. 139-7 for a term of office commencing ~~12/1/2020~~ and ending 12/2024 to fill the expired or un-expired term of Herbert Page. 11/10/2021 HW

Name of nominee: John Glenn Skinner JR.
Address of nominee, City, State, Zip: 296 Cyrus Pollard Rd. Newport N.C. ~~28570~~ 28570
Email address of nominee: glennskinner@nc.fish.org
Home phone:
Mobile phone: 252-646-7742
Business phone:
Occupation: Executive Director of NC ~~Fisheries~~ Fisheries Assoc. / commerical fisherman
Age: 48
Education: GED
Positions of leadership NOW held by nominee: Executive Director of NC Fisheries
Former occupations or positions of leadership contributing to nominee's qualifications: Carteret Country Farm Bureau Board member
Other pertinent information:

Dates of previous attendance at Basic Training for Soil & Water Conservation District Supervisors training, if applicable: N/A

Is nominee willing to attend Basic Training for Soil & Water Conservation District Supervisors within the first year after appointment? *Check for "Yes"* ☑

Has the nominee been contacted to determine their willingness to serve? *Check for "Yes"* ☑

Has the program and purpose of the soil and water conservation district been explained to the nominee? *Check for "Yes"* ☑

Is the nominee willing to attend and participate in local district meetings? *Check for "Yes"* ☑

Is the nominee willing to attend and participate in Area meetings? *Check for "Yes"* ☑

Is the nominee willing to attend and participate in State meetings? *Check for "Yes"* ☑

Signatures

I hereby certify that the board of supervisors considered the Guiding Principles for Supervisor Nomination for Appointment shown on the reverse of this nomination form when selecting the above supervisor candidate for nomination. I also certify that this nomination has been considered and approved by a majority of the members of the board of supervisors and entered in the official minutes of the board.

X Richard B. Taylor
SWCD Chair (or Vice Chair if Chair is being nominated)
Printed name:

Date 10/25/21

I hereby certify that the above information is true and accurate.

X John Glenn Skinner Jr.
Individual nominated for appointment
Printed name: John Glenn Skinner Jr.

Date 10/25/21

ATTACHMENT 7A

Support for Nomination Relative to Guiding Principles for Nomination of Supervisor for Appointment/Reappointment

1. Number of current District Supervisors actively engaged in, or recently retired from, an agricultural operation? 3
   Is the nominee actively engaged in, or recently retired from, an agricultural operation? Y ☐ N ☑
   If yes, describe.

2. Will the appointment bring new leadership skills to the board? Y ☑ N ☐ If yes, explain: Mr. Skinner serves as the Executive Director for the NC Fisheries Association. He exemplifies leadership in this role and will bring a new and different perspective to the Carteret SWCD.

3. Will the appointment strengthen the political connection/influence of the district, especially at the county level? Y ☑ N ☐ If yes, explain Mr. Skinner regularly communicates with local, state and federal representatives related to fisheries issues. His established relationships will be of great benefit to the Carteret SWCD and the Association.

4. Will the appointment provide representation from a portion of the county not currently represented by a supervisor? Y ☐ N ☑ If yes, explain:

5. Will the appointment provide a better opportunity to work with a segment of agriculture not currently being served? Y ☑ N ☐ If yes, explain: The Carteret SWCD seeks to work with aquaculture operations and develop connections to the commercial fishing industry; Mr. Skinner has extensive connections in these areas and will provide great support to the district.

6. Will the appointment improve opportunities to work with non-traditional partners (e.g., land trust, forest landowners, grant making organizations, environmental advocacy groups)? Y ☑ N ☐ If yes, explain: Mr. Skinner's professional relationships are diverse and will expand current partnership opportunities for the Carteret SWCD.

7. Will the appointment improve the make-up of the board from an agricultural/nonagricultural perspective? Y ☑ N ☐
   If yes, explain: The Carteret SWCD currently has three members that are closely tied to agriculture; Mr. Skinner's expertise and relationships will be unique to the board and are very relevant to programs and business in the district.

8. Will the appointment improve the diversity of the board? Y ☑ N ☐ If yes, describe: Mr. Skinner's perspective and professional and personal relationships will be unique to the board.

9. Has the nominee shown past involvement in an organization beyond the local level? Y ☑ N ☐ If yes, explain: By nature of his professional career, Mr. Skinner has been very active in working with politicians on state and national issues.

10. Will the appointment strengthen the District's opportunity to raise funds? Y ☑ N ☐ If yes, explain: Mr. Skinner has experience in securing grant funding for projects. This will be a new skill set to share with the Carteret SWCD.

11. Will the appointment strengthen the District's education, marketing, and outreach efforts? Y ☑ N ☐ If yes, explain: Mr. Skinner will help the Carteret SWCD to reach new program participants - especially related to aquaculture production. The Carteret SWCD is anxious to have access to cooperators for new and expanding programs.

12. Other justification in support of the nomination: The Carteret SWCD is anxious to expand program participation related to aquaculture. Mr. Skinner also brings key political connections that will be beneficial to the board.

DIVISION OF SOIL AND WATER CONSERVATION
North Carolina Department of Agriculture & Consumer Services
1614 Mail Service Center • Raleigh, NC 27699-1614
919.733.2302 • www.ncagr.gov/swc/

INTERNAL USE ONLY:
Appointed / Elected Seat
Current Term: 2018-2022

NOMINATION FOR APPOINTMENT OF SUPERVISOR

Complete and submit online on your district's SharePoint page; keep original for your file

The supervisors of the Rowan Soil and Water Conservation District of Rowan County, North Carolina have nominated the individual listed below for APPOINTMENT as a district supervisor in accordance with N.C.G.S. 139-7 for a term of office commencing November 10, 2021 and ending December 2022 to fill the expired or un-expired term of Leonard Maxwell West.

Name of nominee: Cheryl McCoy Correll
Address of nominee, City, State, Zip: 1475 Woodleaf Barber Road
Email address of nominee: correll249@yahoo.com
Home phone: 704-278-3114
Mobile phone: 704-202-9692
Business phone:
Occupation: Farmer/mother
Age: 01/25/1976 45
Education: BS Agriculture Education
Positions of leadership NOW held by nominee: Board Member, Historic Salisbury Foundation
Former occupations or positions of leadership contributing to nominee's qualifications: Former Ag Education Teacher
Other pertinent information: Current Farmer that uses Division cost-share

Dates of previous attendance at Basic Training for Soil & Water Conservation District Supervisors training, if applicable: N/A
Is nominee willing to attend Basic Training for Soil & Water Conservation District Supervisors within the first year after appointment? *Check for "Yes"* ☑
Has the nominee been contacted to determine their willingness to serve? *Check for "Yes"* ☑
Has the program and purpose of the soil and water conservation district been explained to the nominee? *Check for "Yes"* ☑
Is the nominee willing to attend and participate in local district meetings? *Check for "Yes"* ☑
Is the nominee willing to attend and participate in Area meetings? *Check for "Yes"* ☑
Is the nominee willing to attend and participate in State meetings? *Check for "Yes"* ☑

Signatures

I hereby certify that the board of supervisors considered the Guiding Principles for Supervisor Nomination for Appointment shown on the reverse of this nomination form when selecting the above supervisor candidate for nomination. I also certify that this nomination has been considered and approved by a majority of the members of the board of supervisors and entered in the official minutes of the board.

X _____ 10/22/2021
SWCD Chair (or Vice Chair if Chair is being nominated) Date
Printed name: Bruce L. Miller

I hereby certify that the above information is true and accurate.

X _____ 10/27/21
Individual nominated for appointment Date
Printed name: Cheryl McCoy Correll

Support for Nomination Relative to Guiding Principles for Nomination of Supervisor for Appointment/Reappointment

1. Number of current District Supervisors actively engaged in, or recently retired from, an agricultural operation? 2
   Is the nominee actively engaged in, or recently retired from, an agricultural operation? Y ☑ N ☐
   If yes, describe. Produce, Beef cattle, row crop farm on 275 acres.

2. Will the appointment bring new leadership skills to the board? Y ☑ N ☐ If yes, explain: Cheryl has ag education experience as well as produce farm perspective. Cheryl is a leader in all that she is involved in, and is willing to go the extra mile in all that she does.

3. Will the appointment strengthen the political connection/influence of the district, especially at the county level? Y ☑ N ☐ If yes, explain Cheryl knows a lot of influential people through her contacts with Historic Salisbury Foundation. She is willing to talk to commissioners and other community leaders in order to help the S&W Conservation cause.

4. Will the appointment provide representation from a portion of the county not currently represented by a supervisor? Y ☑ N ☐ If yes, explain: Cheryl is from the NW portion of the county, and Mr. West was also, so she will fill the portion of the county that Mr. West is vacating.

5. Will the appointment provide a better opportunity to work with a segment of agriculture not currently being served? Y ☑ N ☐ If yes, explain: She has served on a Ladies in Rowan Agriculture group, and can broaden our contacts with the female agriculture segment of the Rowan population.

6. Will the appointment improve opportunities to work with non-traditional partners (e.g., land trust, forest landowners, grant making organizations, environmental advocacy groups)? Y ☑ N ☐ If yes, explain: Cheryl has contacts with the local land trust, and is willing to build that relationship with S&W in the future.

7. Will the appointment improve the make-up of the board from an agricultural/nonagricultural perspective? Y ☑ N ☐
   If yes, explain: She will provide a broader perspective to the Board in the beef and produce areas. Her involvement with Historic Salisbury Foundation will also present a different conservation perspective.

8. Will the appointment improve the diversity of the board? Y ☑ N ☐ If yes, describe: Yes. She will be our first female Board member.

9. Has the nominee shown past involvement in an organization beyond the local level? Y ☑ N ☐ If yes, explain:
   Local-Rowan Farm Bureau Women's Committee State-NC Cattlemens Assn., NC Hereford Assn., NC Pollettes National-Amer. Hereford Assn, National Hereford Women

10. Will the appointment strengthen the District's opportunity to raise funds? Y ☑ N ☐ If yes, explain:
    She will be able to broaden our contacts on the local and State level. Possibly on the National level as well since she and her daughter are involved in National Hereford Association.

11. Will the appointment strengthen the District's education, marketing, and outreach efforts? Y ☑ N ☐ If yes, explain: Her background on their produce farm and education experience will certainly strengthen our efforts. She is a strong proponent of ag awareness and education. She is also willing to pursue grants for education on behalf of the district to further our conservation efforts.

12. Other justification in support of the nomination: Their family was Rowan SWCD 2019 Conservation Farm Family and runner up for the State.

ATTACHMENT 7A

1110 STATESVILLE BLVD
CLEVELAND, NC 27013
23 AUGUST 2021

ROWAN SOIL & WATER CONSERVATION
ATTN: MR. BRUCE MILLER, CHAIRMAN
2727C OLD CONCORD ROAD
SALISBURY, NC 28146

MR. BRUCE MILLER, CHAIRMAN:

The purpose of this letter is to submit, upon receipt, my resignation from the Rowan Soil and Water Conservation Board.

I regret that I am unable to complete my term as a Supervisor due to health concerns. Also I regret that I missed the August Meeting.

I enjoyed working with each and every one of the Board members, Chris Sloop and Kelli Isenhour. Thank you for your support and co-operation. It was a fulfilling experience.

Best Wishes as you continually strive to be one of the best conservation boards in the state.

Sincerely,
Leonard M. "Max" West

ATTACHMENT 7B

NC Cost Share Programs Supervisor Contracts
Soil and Water Conservation Commission

County	Contract Number	Supervisor Name	BMP	Contract Amount	Comments
Alleghany	03-2022-003	Travis Dalton	Pasture Renovation	$ 10,211	
Alleghany	03-2022-005	Bill Osborne	Cropland Conversion	$ 4,200	
Alleghany	03-2022-007	Yancy Sparks	Agricultural Road Repair/Stabilization	$ 6,734	
Franklin	35-2022-003	Ricky May	Sod-based Rotation	$ 6,000	Contract is in Ricky's brother's name - Virgil May
Union	90-2022-008	Evan Haigler	Drystack	$ 15,297	Supplement contract to original 90-2021-008
Warren	93-2022-001	Herman Collier	Heavy Use Area Protection	$ 27,363	Contract is in daughter Rebecca Collier's name

Total Number of Supervisor Contracts: 6

Total $69,805

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE
NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Alleghany Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: II

Best management practice: Pature Renovation

Contract number: 03-2022-003 Contract amount: $ 10,211

Score on priority ranking sheet: 140

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 3rd out of 8

Were any higher or equally ranked contracts denied? ☐ Yes ☒ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Travis Dalton of Dalton Farms, LLC

Travis Dalton
(District Supervisor's signature)

10/21/21
Date

Approved by: Alvin Dixon

Alvin Dixon
(District Chairperson's signature)

10/22/21
Date

The Soil & Water Commission has approved the subject application for a contract.

_____
(SWCC Chairperson's signature)
(Pursuant G.S. 139-8(b)(2))

_____
Date

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE
NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Alleghany Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: ACSP

Best management practice: Cropland Conversion

Contract number: 03-2022-005 Contract amount: $ 4200

Score on priority ranking sheet: 118

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 5th out of 8

Were any higher or equally ranked contracts denied? ☐ Yes ☒ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Bill Osborne

Bill Osborne
(District Supervisor's signature)

10/21/21
Date

Approved by: Alvin Dixon

Alvin E Dixon
(District Chairperson's signature)

10/22/21
Date

The Soil & Water Commission has approved the subject application for a contract.

_____
(SWCC Chairperson's signature)
(Pursuant G.S. 139-8(b)(2))

_____
Date

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE
NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Alleghany Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: ACSP

Best management practice: ~~Access Road Repair~~ Agricultural Road Repair/Stabilization

Contract number: 03-2022-007 Contract amount: $ 6,734

Score on priority ranking sheet: 112

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 7th out of 8

Were any higher or equally ranked contracts denied? ☐ Yes ☒ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Yancy Sparks

(District Supervisor's signature) 10-21-21 Date

Approved by: Alvin Dixon

(District Chairperson's signature) 10-22-21 Date

The Soil & Water Commission has approved the subject application for a contract.

(SWCC Chairperson's signature) Date
(Pursuant G.S. 139-8(b)(2))

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE
NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Franklin Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: NCASP

Best management practice: 17 Sod Based Rotation

Contract number: 35-2022-003 Contract amount: $ 6000.00

Score on priority ranking sheet: 72

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 2nd

Were any higher or equally ranked contracts denied? ☐ Yes ☑ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Ricky May

Ricky V. May
(District Supervisor's signature)

9-16-21
Date

Approved by:

Burt Stinchcomb
(District Chairperson's signature)
Vice

9-16-21
Date

The Soil & Water Commission has approved the subject application for a contract.

_____
(SWCC Chairperson's signature)
(Pursuant G.S. 139-8(b)(2))

_____
Date

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Union County Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: ACSP

Best management practice: Dry Stack

Contract number: 90-2022-008 Contract amount: $ 15,297

Score on priority ranking sheet: 115

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 8th out of 12

Were any higher or equally ranked contracts denied? ☐ Yes ☒ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Evan Haigler

(District Supervisor's signature) 10-19-2021 Date

Approved by:

(District Chairperson's signature) 10-19-2021 Date

The Soil & Water Commission has approved the subject application for a contract.

(SWCC Chairperson's signature) Date
(Pursuant G.S. 139-8(b)(2))

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

ATTACHMENT 7B

NCDA&CS
DSWC

NC -CSPs-1B
(11/2012)

ADDENDUM TO APPLICATION FOR ASSISTANCE
NORTH CAROLINA COMMISSION COST SHARE PROGRAMS

As a Soil and Water District Supervisor, for the Warren Soil and Water Conservation District, I have applied for, or stand to benefit* from, a contract under a commission cost share program. I did not vote on the approval or denial of the application or attempt to influence the outcome of any action on the application. The proposed contract is for the installation of the following best management practices.

Program: ACSP

Best management practice: Heavy Use Area Protection (2)

Contract number: 93-2022-001 Contract amount: $ 27,363

Score on priority ranking sheet: 185

Cost Share Rate: 75 % If different than 75%, please list % percent: _____
Reason: _____

Relative rank (e.g., ranked 8th out of 12 projects considered): 1 of 2

Were any higher or equally ranked contracts denied? ☐ Yes ☒ No

If yes, give an explanation as to why the supervisor's contract was approved over the other contracts:

Supervisor name: Herman Collier

Herman Collier
(District Supervisor's signature) 9/14/20 Date

Approved by:

Charles Lynch
(District Chairperson's signature) Vice 9/14/20 Date

The Soil & Water Commission has approved the subject application for a contract.

(SWCC Chairperson's signature) Date
(Pursuant G.S. 139-8(b)(2))

*Beneficiaries include but are not limited to applicant, landowner, and/or business partners.

Lagoon Biosolids Removal

ATTACHMENT 8A

PRACTICE DESCRIPTION				JOB CLASSES				
CODE	PRACTICE	CONTROLLING FACTOR	UNITS	JOB CLASS I	JOB CLASS II	JOB CLASS III	JOB CLASS IV	JOB CLASS V
590-LBR	Biosolids Removal	Nutrient Source, Application Method and/or Special Conditions	Type	All				

TECHNICAL COMPETENCY REQUIREMENTS

Prerequisites

1. Employees must fulfill ALL the Technical Competency Requirements listed for this practice, and submit the specified number of plans for review for the highest level of complexity for which they wish to receive JAA.
2. Working knowledge of SWCC JAA Policy and Procedures, applicable conservation practice standard, and BMP policies.
3. Working Knowledge of Web Soil Survey, Suitabilities and Limitations Ratings
4. Working knowledge in the analysis and interpretation of soil test and waste analysis results.
5. NCSU Nutrient Management in NC Course which includes: (1) the online prerequisite; (2) 5-days of nutrient management-related course work, including PLAT, RUSLE2 and software trainings; and (3) NC Rules and Regulations Governing Animal Waste Management in NC training, along with a passing score on the exams given at the conclusion of each section.
6. Working knowledge in the Agricultural Waste Management Field Handbook (Title 210, Part 651).
7. JAA for Code 590, Nutrient Management
8. Waste Utilization Planning/Nutrient Management (WUP/NM) Technical Specialist Designation.
9. Capability to complete "The NRCS-CPA-52 Environmental Evaluation Worksheet" or comparable site assessment form.

Practice Knowledge, Skill and Abilities (KSAs)

1. Ability to perform a sludge survey to determine volume estimates of biosolids removal.
2. Ability to collect soil samples and interpret soil test reports for recommendations.
3. Knowledge of NC's crops and cropping systems.
4. Knowledge of tillage systems used in NC.
5. Knowledge to assess the risk of nitrogen leaching loss, the nitrogen Leaching Index, obtained through use of current Soil Hydrologic Group (SHG)-based LI index maps in Section II of the NC FOTG OR RUSLE 2 field specific soil loss calculations.
6. Ability to perform Nitrogen and Phosphorus Risk Assessments using NCANAT (NLEW+PLAT) in the NC Nutrient Management Planning Software.
7. Ability to assess site soil conditions and prescribe treatment and the appropriate vegetation.
8. Knowledge of manure characteristics and nutrient values.
9. Ability to read, interpret, and use waste impoundment as-built designs to develop a removal plan.
10. Skill for development of related computations and analyses to develop a biosolids removal plan and specifications including but not limited to geology, soil mechanics, hydraulics, structural design, vegetation, and soil bioengineering.
11. Certification the installation meets applicable standards and specifications and is in compliance with permits (NEM Part 505 – Non-NRCS Engineering Services, Subpart A - Introduction, 505.3).

INVENTORY & EVALUATION (I&E)	DESIGN (D)	CONSTRUCTION & CERTIFICATION (C&C)
1. Independently complete a minimum of two I&E packets on separate Planning Land Units (PLU) to indentify and document resource concerns using the latest NRCS-CPA -52 Form (or equivalent) and GIS mapping tools (i.e. ArcMap, Toolkit, or Conservation Desktop) to develop Conservation Plan Maps of land application fields. 2. Use the latest NRCS-CPA-52 (Sections A thru P) or comparable site assessment form to independently recommend and document resource alternatives/alternative action(s) needed to meet the client's objective and achieve the intended purpose to mitigate associated resource concerns for two different Planning Land Units (PLU). 3. Independently complete a minimum of two sludge surveys on separate Planning Land Units (PLU) to identify and document resource needs and concerns. 4. Collect the appropriate Soil Samples and RUSLE field data on each land application field to receive animal waste to identify and document resource needs and concerns.	1. Independently complete a minimum of two Biosolids removal nutrient management plans on separte Planning Land Units (PLU) in accordance with the most recent NRCS 590 Standard and SWCC Lagoon Biosolids Remvoal BMP and Policies. Plans should include maps of application fields and associated setbacks, sludge survey information, soil samples, PLAT results, copper and zinc projections and narrative explaining biosolids removal methodology. 2. Independently fulfill/complete the "Design" deliverables in accordance with the most recent eFOTG practice Statement of Work (SOW), including O&M guidance, and any applicable Job Sheet(s), Implementation Requirements, or comparable SWCC practice specification sheet(s). 3. Completion of the latest NRCS-CPA-52 Worksheet, Sections A through P or comparable site assessment form	1. Independently complete a minimum of two construction/certification "check-outs" for the desired practice on separate Planning Land Units (PLU) in accordance with the most recent SWCC BMP policy and NRCS 590 standard. 2. Independently fullfull/complete the "Installation" & "Check Out" deliverables in accordance with the most recent eFOTG practice State of Work (SOW) or comparable SWCC forms(s). 3. Independently compile, record, and complete practice certification activities using the latest NC-CPA-09 Form ("Conservation Practice Certification Form") or Comparable form.

Manure/Litter Transportation Incentive

ATTACHMENT 8A

PRACTICE DESCRIPTION				JOB CLASSES				
CODE	PRACTICE	CONTROLLING FACTOR	UNITS	JOB CLASS I	JOB CLASS II	JOB CLASS III	JOB CLASS IV	JOB CLASS V
590-MLTI	Manure/Litter Transportation	Nutrient Source, Application Method and/or Special Conditions	Type	All				

TECHNICAL COMPETENCY REQUIREMENTS

Prerequisites

1. Employees must fulfill ALL the Technical Competency Requirements listed for this practice, and submit the specified number of plans for review for the highest level of complexity for which they wish to receive JAA.
2. Working knowledge of SWCC JAA Policy and Procedures, applicable conservation practice standard, and BMP policies.
3. Working Knowledge of Web Soil Survey, Suitabilities and Limitations Ratings
4. Working knowledge in the analysis and interpretation of soil test and waste analysis results.
5. NCSU Nutrient Management in NC Course which includes: (1) the online prerequisite; (2) 5-days of nutrient management-related course work, including PLAT, RUSLE2 and software trainings; and (3) NC Rules and Regulations Governing Animal Waste Management in NC training, along with a passing score on the exams given at the conclusion of each section.
6. Working knowledge in the Agricultural Waste Management Field Handbook (Title 210, Part 651).
7. Working knowledge of the 1217 Interagency Committee Guidance Document.
8. JAA for Code 590, Nutrient Management.

Practice Knowledge, Skill and Abilities (KSAs)

1. Knowledge of Manure/Litter waste transportation methods and equipment.
2. Ability to collect soil samples and interpret soil test reports for recommendations.
3. Knowledge of NC's crops and cropping systems.
4. Knowledge of tillage systems used in NC.
5. Knowledge to assess the risk of nitrogen leaching loss, the nitrogen Leaching Index, obtained through use of current Soil Hydrologic Group (SHG)-based LI index maps in Section II of the NC FOTG OR RUSLE 2 field specific soil loss calculations.
6. Ability to perform Nitrogen and Phosphorus Risk Assessments using NCANAT (NLEW+PLAT) in the NC Nutrient Management Planning Software.
7. Ability to assess site soil conditions and prescribe treatment and the appropriate vegetation.
8. Knowledge of manure characteristics and nutrient values.
9. Certification the installation meets applicable standards and specifications and is in compliance with permits (NEM Part 505 – Non-NRCS Engineering Services, Subpart A - Introduction, 505.3).

INVENTORY & EVALUATION (I&E)

1. Independently complete a minimum of two I&E packets on separate Planning Land Units (PLU) to indentify and document resource concerns using the latest NRCS-CPA -52 Form (or equivalent) and GIS mapping tools (i.e. ArcMap, Toolkit, or Conservation Desktop) to develop Conservation Plan Maps of land application fields.
2. Use the latest NRCS-CPA-52 (Sections A thru P) or comparable site assessment form to independently recommend and document resource alternatives/alternative action(s) needed to meet the client's objective and achieve the intended purpose to mitigate associated resource concerns for two different Planning Land Units (PLU).
3. Collect the appropriate Soil Samples and RUSLE field data on each land application field to receive animal waste to identify and document resource needs and concerns.
4. Complete the appropriate "CONSERVATION PLANNING CRITERIA, RESOURCE CONCERNS & SPECIAL ENVIRONMENTAL CONCERNS CHECKLIST (see EFOTG, Section II) or comparable form, and ALL applicable resource assessments tools, such as erosion prediction tools, calculations, surveys, and soils investigations necessary to document existing resource conditions, resource concerns, and short-term/long term effects of proposed alternatives.

DESIGN (D)

1. Independently complete a minimum of two nutrient management plans on separte Planning Land Units (PLU) in accordance with the most recent NRCS 590 Standard and SWCC Manure/Litter Transportation BMP and Policies. Plans should include maps of application fields and associated setbacks, waste production information, soil samples, PLAT results, and narrative explaining the livestock or poultry operation.
2. Independently fulfill/complete the "Design" deliverables in accordance with the most recent eFOTG practice Statement of Work (SOW), including O&M guidance, and any applicable Job Sheet(s), Implementation Requirements, or comparable SWCC practice specification sheet(s).
3. Completion of the latest NRCS-CPA-52 Worksheet, Sections A through P or comparable site assessment form.

CONSTRUCTION & CERTIFICATION (C&C)

1. Independently complete a minimum of two construction/certification "check-outs" for the desired practice on separate Planning Land Units (PLU) in accordance with the most recent SWCC BMP policy and NRCS 590 standard.
2. Independently fullfull/complete the "Installation" & "Check Out" deliverables in accordance with the most recent eFOTG practice State of Work (SOW) or comparable SWCC forms(s).
3. Independently compile, record, and complete practice certification activities using the latest NC-CPA-09 Form ("Conservation Practice Certification Form") or Comparable form.

Closure of Abandoned Waste Impoundment

ATTACHMENT 8A

PRACTICE DESCRIPTION				JOB CLASSES				
CODE	PRACTICE	CONTROLLING FACTOR	UNITS	JOB CLASS I	JOB CLASS II	JOB CLASS III	JOB CLASS IV	JOB CLASS V
360	Closure Impoundment	Storage After Closure *	Gallons	0				

TECHNICAL COMPETENCY REQUIREMENTS

Prerequisites

1. Employees must fulfill ALL the Technical Competency Requirements listed for this practice, and submit the specified number of plans for review for the highest level of complexity for which they wish to receive JAA.
2. Working knowledge of SWCC JAA Policy and Procedures, applicable conservation practice standard, and BMP policies.
3. Working Knowledge of Web Soil Survey, Suitabilities and Limitations Ratings
4. Working knowledge in the analysis and interpretation of soil test and waste analysis results.
5. NCSU Nutrient Management in NC Course which includes: (1) the online prerequisite; (2) 5-days of nutrient management-related course work, including PLAT, RUSLE2 and software trainings; and (3) NC Rules and Regulations Governing Animal Waste Management in NC training, along with a passing score on the exams given at the conclusion of each section.
6. Working knowledge in the Agricultural Waste Management Field Handbook (Title 210, Part 651).
7. JAA for Code 590, Nutrient Management.
8. Waste Utilization Planning/Nutrient Management (WUP/NM) Technical Specialist Designation.
9. Working knowledge of practices needed to control erosion on disturbed areas (Standard 342).

* If storage of fresh water is to be maintained after verification of waste removal, a PE must be involved with spillway design and 360 JAA is not applicable.

Practice Knowledge, Skill and Abilities (KSAs)

1. Ability to perform a sludge survey to determine volume estimates of waste removal.
2. Ability to collect soil samples and interpret soil test reports for recommendations.
3. Knowledge of NC's crops and cropping systems.
4. Knowledge of tillage systems used in NC.
5. Knowledge to assess the risk of nitrogen leaching loss, the nitrogen Leaching Index, obtained through use of current Soil Hydrologic Group (SHG)-based LI index maps in Section II of the NC FOTG OR RUSLE 2 field specific soil loss calculations.
6. Ability to perform Nitrogen and Phosphorus Risk Assessments using NCANAT (NLEW+PLAT) in the NC Nutrient Management Planning Software.
7. Ability to assess site soil conditions and prescribe treatment and the appropriate vegetation.
8. Knowledge of manure characteristics and nutrient values.
9. Ability to read, interpret, and use waste impoundment as-built designs to develop a closure plan.
10. Skill for development of related computations and analyses to develop closure plans and specifications including but not limited to geology, soil mechanics, hydraulics, structural design, vegetation, and soil bioengineering.
11. Certification the installation meets applicable standards and specifications and is in compliance with permits (NEM Part 505 – Non-NRCS Engineering Services, Subpart A - Introduction, 505.3).

PRACTICE PHASES

INVENTORY & EVALUATION (I&E)

1. Independently complete a minimum of two I&E packets on separate Planning Land Units (PLU) to indentify and document resource concerns using the latest NRCS-CPA -52 Form (or equivalent) and GIS mapping tools (i.e. ArcMap, Toolkit, or Conservation Desktop) to develop Conservation Plan Maps of land application fields.
2. Use the latest NRCS-CPA-52 (Sections A thru P) or comparable site assessment form to independently recommend and document resource alternatives/alternative action(s) needed to meet the client's objective and achieve the intended purpose to mitigate associated resource concerns for two different Planning Land Units (PLU).
3. Independently complete a minimum of two sludge surveys on separate Planning Land Units (PLU) to identify and document resource needs and concerns.
4. Collect the appropriate Soil Samples and RUSLE field data on each land application field to receive animal waste to identify and document resource needs and concerns.
5. Complete the appropriate "CONSERVATION PLANNING CRITERIA, RESOURCE CONCERNS & SPECIAL ENVIRONMENTAL CONCERNS CHECKLIST (see EFOTG, Section II) or comparable form, and ALL applicable resource assessments tools, such as erosion prediction tools, calculations, surveys, and soils investigations necessary to document existing resource conditions, resource concerns, and short-term/long term effects of proposed alternatives.

DESIGN (D)

1. Independently complete a minimum of two waste impoundment closure nutrient management plans on separte Planning Land Units (PLU) in accordance with the most recent NRCS 360 Standard and SWCC Closure-Waste Impoundment BMP and Policies. Plans should include maps of application fields and associated setbacks, sludge survey information, soil samples, PLAT results, copper and zinc projections and narrative explaining closure methodology.
2. Independently fulfill/complete the "Design" deliverables in accordance with the most recent eFOTG practice Statement of Work (SOW), including O&M guidance, and any applicable Job Sheet(s), Implementation Requirements, or comparable SWCC practice specification sheet(s).
3. Completion of the latest NRCS-CPA-52 Worksheet, Sections A through P or comparable site assessment form.

CONSTRUCTION & CERTIFICATION (C&C)

1. Independently complete a minimum of two construction/certification "check-outs" for the desired practice on separate Planning Land Units (PLU) in accordance with the most recent SWCC BMP policy and NRCS 360 standard.
2. Independently fullfull/complete the "Installation" & "Check Out" deliverables in accordance with the most recent eFOTG practice State of Work (SOW) or comparable SWCC forms(s).
3. Independently compile, record, and complete practice certification activities using the latest NC-CPA-09 Form ("Conservation Practice Certification Form") or Comparable form.
4. Independently complete a minimum of two NC DWR Animal Waste Storage Pond and Lagoon Closure Report forms on separte Planning Land Units (PLU) in accordance with NC DWR policies.

Randolph Strategic Plan Update Request for AgWRAP Funds

November 10, 2021

AgWRAP Financial Assistance Allocation Guidelines and Procedures

02 NCAC 59D .0105

(f) “At any time a district may submit a revised strategic plan to request additional funds from the Commission”

Randolph SWCD has submitted a revised strategic plan to request for AgWRAP funds.

Randolph SWCD AgWRAP Allocation

- FY 2022 Allocation Strategy
  - Request allocation in revised strategic plan: $6,670
  - Funding available using allocation parameters: $6,670

- Request approval of an AgWRAP allocation of $6,670 in AgWRAP funds to Randolph Soil and Water Conservation District.

ATTACHMENT 9

Randolph County Soil & Water Conservation District

2222-A S. Fayetteville Street ◆ Asheboro, North Carolina 27205
Phone: (336) 318-6490 ◆ Fax: (336) 636-7691

September 28, 2021

North Carolina Soil and Water Conservation Commission
c/o Sydney Mucha
AgWRAP Coordinator
Division of Soil and Water Conservation
NC Dept. of Agriculture & Consumer Services

Dear Ms. Mucha,

The Randolph County Soil and Water Conservation District would like to request $6670 in funds for the FY2022 program year for the AgWRAP program. This request was not listed in the Strategy Plan for 2022 due to the application being received after the strategy plan submission deadline.

Your time and attention to this matter is greatly appreciated. If you have any questions, please do not hesitate to contact me at the number below.

Sincerely,

Craig Frazier, Chairman
336-318-6490

Yours for Life

Best Management Practice	Components	Unit Type	Cost Type	Share Rate	Cost Share Cap *	Notes
Abandoned well closure		Each	Actual Cost	75%	$ 1,500	
Backyard rain garden			Actual Cost	75%	$ 2,750	
Backyard wetland			Actual Cost	75%	$ 2,750	
Cisterns	<1,000 gallons (includes installation)	Gallon	Actual Cost	75%	$ 2,250	
	1,000 - 3,000 gallons (includes installation)	Gallon	Actual Cost	75%	$1.56/gallon	$2,250 + $1.56/gallon over 1,000 gallons (max of $4,490)
	> 3,000 gallons (includes installation)	Gallon	Actual Cost	75%	$1.65/gallon	$4,490 + $1.65/gallon over 3,000 gallons
	Accessories package	Each	Actual Cost	75%	$ 1,000	
	Shipping charge	Each	Actual Cost	75%	$ 750	
	Cistern (3,000+ gallons) - engineering	Job	Actual Cost	75%	$ 3,000	
Critical area planting		SqFt	Actual Cost	75%		
Diversion		SqFt	Actual Cost	75%		
	Diversion - engineering	Job	Actual Cost	75%	$ 3,000	
Grassed Swale		SqFt	Actual Cost	75%		
Impervious surface conversion	conversion to trees	SqFt	Actual Cost	75%		
	conversion to grass	SqFt	Actual Cost	75%		
Permeable pavement	Non-vehicular (inc impervious removal)	SqFt	Actual Cost	75%		capped at $16.90/sqft
	Vehicular (inc impervious removal)	SqFt	Actual Cost	75%		capped at $23.00/sqft
	Permeable pavement - engineering	Job	Actual Cost	75%	$ 5,000	
Pet waste receptacle		Each				
	Receptacle (installed)	Each	Actual Cost	75%	$ 400	
	Receptacle (retrofit of existing trash can)	Each	Actual Cost	75%	$ 100	
	Plastic bags (per receptacle at time of original contracts)		Actual Cost	75%	$ 75	
Riparian buffer		SqFt	Actual Cost	75%		
Stream restoration		Feet	Actual Cost	75%		
	Stream restoration - engineering	Job	Actual Cost	75%	$ 5,000	
Streambank and shoreline protection		Feet	Actual Cost	75%		
Bioretention areas		SqFt	Actual Cost	75%		
	Bioretention areas - engineering	Job	Actual Cost	75%	$ 5,000	
Stormwater wetlands		SqFt	Actual Cost	75%		
	Stormwater wetlands - engineering	Job	Actual Cost	75%	$ 5,000	
Marsh sills	<= 100 feet	Feet	Actual Cost	75%	$ 10,000	
	Each additional foot >100 feet	Feet	Actual Cost	75%	$100/foot	
Structural Stormwater Conveyance		Each	Actual Cost	75%	$ 4,000	
	Structural stormwater conveyance - engineering	Job	Actual Cost	75%	$ 1,667	

* For actual cost items, the payment is based on 75% of actual cost, not to exceed the established cost share cap.

ATTACHMENT 10

NC CCAP **DRAFT FY2022 Cost List**

Best Management Practice	Components	Unit Type	All Areas Unit Cost	Cost Type	Share Rate	Cost Share Cap *	Notes
Abandoned well closure		Each		Actual Cost	75%	$ 1,500	
Backyard rain garden				**Actual Cost**	**75%**	**$ 2,750**	
	~~Excavation (including mobilization)~~	~~CuYd~~	~~$ 67.50~~	~~Average Cost~~	~~75%~~	~~$ 1,000~~	
	~~Bioretention soil amendment~~	~~CuYd~~	~~$ 28.00~~	~~Average Cost~~	~~75%~~		
	~~Triple shredded hardwood mulch~~	~~CuYd~~	~~$ 25.00~~	~~Average Cost~~	~~75%~~		
	~~Bioretention plants (installed)~~	~~SqFt~~	~~$ 1.50~~	~~Average Cost~~	~~75%~~		
	~~Brick - 8"~~	~~Each~~	~~$ 0.51~~	~~Average Cost~~	~~75%~~		
	~~Concrete block - 6" or 8'~~	~~Each~~	~~$ 1.90~~	~~Average Cost~~	~~75%~~		
	~~Concrete block - 12"~~	~~Each~~	~~$ 2.30~~	~~Average Cost~~	~~75%~~		
	~~Catch basin~~	~~Job~~		~~Actual Cost~~	~~75%~~	~~$ 1,000~~	
	~~Sod (Bermuda, Centipede, Fescue)~~	~~SqFt~~	~~$ 0.25~~	~~Average Cost~~	~~75%~~	~~$ 25~~	~~Inlet & outlet only~~
	~~Sod (Zoysia)~~	~~SqFt~~	~~$ 0.37~~	~~Average Cost~~	~~75%~~	~~$ 25~~	~~Inlet & outlet only~~
	~~Matting - excelsior, installed~~	~~SqYd~~	~~$ 0.95~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Turf Reinforced Matting~~	~~SqYd~~	~~$ 5.50~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Vegetation (grass) - minimum~~	~~Job~~	~~$ 15.00~~	~~Average Cost~~	~~75%~~		~~only necessary if adjacent areas are disturbed during installation~~
Backyard wetland				**Actual Cost**	**75%**	**$ 2,750**	
	~~Excavation (including mobilization)~~	~~CuYd~~	~~$ 67.50~~	~~Average Cost~~	~~75%~~	~~$ 1,000~~	
	~~Wetland plants (installed)~~	~~SqFt~~	~~$ 2.30~~	~~Average Cost~~	~~75%~~		
	Wetland outlet structure	Each	$ 50.00	Average Cost	75%		
Cisterns	**<1,000 gallons (includes installation)**	**Gallon**		**Actual Cost**	**75%**	**$ 2,250**	
	1,000 - 3,000 gallons (includes installation	**Gallon**		**Actual Cost**	**75%**	**$1.56/gallon**	**$2,250 + $1.56/gallon over 1,000 gallons (max of $4,490)**
	> 3,000 gallons (includes installation)	**Gallon**		**Actual Cost**	**75%**	**$1.65/gallon**	**$4,490 + $1.65/gallon over 3,000 gallons**
	~~Cistern 250-3,000 gallons installed~~	~~Gallon~~	~~$ 1.00~~	~~Average Cost~~	~~75%~~		
	~~Cistern above 3,000 gallons installed~~	~~Gallon~~		~~Actual Cost~~	~~75%~~		
	Accessories package	**Each**		**Actual Cost**	**75%**	**$ 1,000**	
	~~Accessories package~~	~~Each~~		~~Actual Cost~~	~~75%~~	~~$ 700~~	
	~~Cistern gravel foundation~~	~~CuYd~~	~~$ 37.80~~	~~Average Cost~~	~~75%~~		
	~~Concrete pad for cistern~~	~~CuYd~~	~~$ 123.00~~	~~Average Cost~~	~~75%~~		
	~~Shipping charge~~	~~Each~~		~~Actual Cost~~	~~75%~~	~~$ 500~~	
	Shipping charge	**Each**		**Actual Cost**	**75%**	**$ 750**	
	Cistern (3,000+ gallons) - engineering	Job		Actual Cost	75%	$ 3,000	
Critical area planting		**SqFt**		**Actual Cost**	**75%**		
	~~Grading - minimum~~	~~Job~~	~~$ 25.00~~	~~Average Cost~~	~~75%~~		
	~~Grading - light, 1" - 3" avg~~	~~SqFt~~	~~$ 0.04~~	~~Average Cost~~	~~75%~~		
	~~Grading - medium, 3" - 6" avg~~	~~SqFt~~	~~$ 0.05~~	~~Average Cost~~	~~75%~~		
	~~Grading - heavy, 6" - 9" avg~~	~~SqFt~~	~~$ 0.06~~	~~Average Cost~~	~~75%~~		
	~~Grading - extra heavy, 9" - 12" avg~~	~~SqFt~~	~~$ 0.07~~	~~Average Cost~~	~~75%~~		
	~~Grading - max heavy, more than 12" avg~~	~~SqFt~~	~~$ 0.08~~	~~Average Cost~~	~~75%~~		
	Vegetation (grass)	SqFt	$ 0.03	Average Cost	75%		
	Vegetation - mulch, netting	SqFt	$ 0.07	Average Cost	75%		
	~~Vegetation - mulch, small grain straw~~	~~SqFt~~	~~$ 0.02~~	~~Average Cost~~	~~75%~~		
	~~Compost Blanket (see notes)~~	~~SqFt~~	~~$ 0.20~~	~~Average Cost~~	~~75%~~		
	~~Compost Sock (see notes)~~	~~LFt~~	~~$ 3.00~~	~~Average Cost~~	~~75%~~		
	~~Bioretention soil amendment~~	~~CuYd~~	~~$ 28.00~~	~~Average Cost~~	~~75%~~		
	~~Triple shredded hardwood mulch~~	~~CuYd~~	~~$ 25.00~~	~~Average Cost~~	~~75%~~		
	~~Sod (Bermuda, Centipede, Fescue)~~	~~SqFt~~	~~$ 0.25~~	~~Average Cost~~	~~75%~~	~~$ 250~~	
	~~Sod (Zoysia)~~	~~SqFt~~	~~$ 0.37~~	~~Average Cost~~	~~75%~~	~~$ 250~~	
	~~Hydroseeding~~	~~SqFt~~	~~$ 0.12~~	~~Average Cost~~	~~75%~~		
	~~Matting - excelsior, installed~~	~~SqYd~~	~~$ 0.95~~	~~Average Cost~~	~~75%~~		
Diversion		**SqFt**		**Actual Cost**	**75%**		
	~~Excavation (including mobilization)~~	~~SqFt~~		~~Actual Cost~~	~~75%~~	~~$2.50/SqFt~~	
	~~Vegetation (grass)~~	~~SqFt~~	~~$ 0.03~~	~~Average Cost~~	~~75%~~		
	~~Filter cloth-geotextile fabric~~	~~SqYd~~	~~$ 2.25~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Vegetation - mulch, netting~~	~~SqFt~~	~~$ 0.07~~	~~Average Cost~~	~~75%~~		
	~~Vegetation - mulch, small grain straw~~	~~SqFt~~	~~$ 0.02~~	~~Average Cost~~	~~75%~~		

NC CCAP **DRAFT FY2022 Cost List**

Best Management Practice	Components	Unit Type	All Areas Unit Cost	Cost Type	Share Rate	Cost Share Cap *	Notes
	~~Matting - excelsior, installed~~	~~SqYd~~	~~$ 0.95~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Sod (Bermuda, Centipede, Fescue)~~	~~SqFt~~	~~$ 0.25~~	~~Average Cost~~	~~75%~~		
	~~Sod (Zoysia)~~	~~SqFt~~	~~$ 0.37~~	~~Average Cost~~	~~75%~~		
	~~Turf Reinforced Matting~~	~~SqYd~~	~~$ 5.50~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Temporary liners~~	~~SqYd~~		~~Actual Cost~~	~~75%~~	~~$5.50/SqYd~~	~~Includes pins & installation~~
	~~Rip rap (based on PE design)~~	~~Ton~~	~~$ 24.00~~	~~Average Cost~~	~~75%~~		~~includes Class A,B,1,2~~
	Pipe (based on PE design)			Refer to ACSP cost list			
	Diversion - engineering	Job		Actual Cost	75%	$ 3,000	
Grassed Swale		**SqFt**		**Actual Cost**	**75%**		
	~~Excavation (including mobilization)~~	~~SqFt~~		~~Actual Cost~~	~~75%~~	~~$2.50/SqFt~~	
	~~Vegetation (grass)~~	~~SqFt~~	~~$ 0.03~~	~~Average Cost~~	~~75%~~		
	~~Filter cloth-geotextile fabric~~	~~SqYd~~	~~$ 2.25~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Vegetation - mulch, netting~~	~~SqFt~~	~~$ 0.07~~	~~Average Cost~~	~~75%~~		
	~~Vegetation - mulch, small grain straw~~	~~SqFt~~	~~$ 0.02~~	~~Average Cost~~	~~75%~~		
	~~Matting - excelsior, installed~~	~~SqYd~~	~~$ 0.95~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Sod (Bermuda, Centipede, Fescue)~~	~~SqFt~~	~~$ 0.25~~	~~Average Cost~~	~~75%~~		
	~~Sod (Zoysia)~~	~~SqFt~~	~~$ 0.37~~	~~Average Cost~~	~~75%~~		
	~~Turf Reinforced Matting~~	~~SqYd~~	~~$ 5.50~~	~~Average Cost~~	~~75%~~		~~Includes pins & installation~~
	~~Temporary Liners~~	~~SqYd~~		~~Actual Cost~~	~~75%~~	~~$5.50/SqYd~~	~~Includes pins & installation~~
	~~Rip rap (based on PE design)~~	~~Ton~~	~~$ 24.00~~	~~Average Cost~~	~~75%~~		~~includes Class A,B,1,2~~
	~~Pipe (based on PE design)~~			~~refer to ACSP cost list~~			
	~~Earth fill - hauled~~	~~CuYd~~		~~Actual Cost~~	~~75%~~	~~$9/CuYd~~	
	~~Grassed swale - engineering (if PE required)~~	~~Job~~		~~Actual Cost~~	~~75%~~	~~$ 3,000~~	
Impervious surface	**conversion to trees**	**SqFt**		**Actual Cost**	**75%**		
	~~conversion to trees~~	~~SqFt~~	~~$ 6.00~~	~~Average Cost~~	~~75%~~		
	conversion to grass	**SqFt**		**Actual Cost**	**75%**		
	~~conversion to grass~~	~~SqFt~~	~~$ 4.00~~	~~Average Cost~~	~~75%~~		
Permeable pavement	**Non-vehicular (inc impervious removal)**	**SqFt**		**Actual Cost**	**75%**		**capped at $16.90/sqft**
	Vehicular (inc impervious removal)	**SqFt**		**Actual Cost**	**75%**		**capped at $23.00/sqft**
		~~SqFt~~	~~$ 12.00~~	~~Average Cost~~	~~75%~~		
	Permeable pavement - engineering	Job		Actual Cost	75%	$ 5,000	
Pet waste receptacle		Each					
	Receptacle (installed)	Each		Actual Cost	75%	$ 400	
	Receptacle (retrofit of existing trash can)	Each		Actual Cost	75%	$ 100	
	Plastic bags (per receptacle at time of original contracts)			Actual Cost	75%	$ 75	
Riparian buffer		SqFt		Actual Cost	75%		
Stream restoration		Feet		Actual Cost	75%		
	Stream restoration - engineering	Job		Actual Cost	75%	$ 5,000	
Streambank and shoreline protection		Feet		Actual Cost	75%		
Bioretention areas		SqFt		Actual Cost	75%		
	Bioretention areas - engineering	Job		Actual Cost	75%	$ 5,000	
Stormwater wetlands		SqFt		Actual Cost	75%		
	Stormwater wetlands - engineering	Job		Actual Cost	75%	$ 5,000	
Marsh sills	**<= 100 feet**	**Feet**		**Actual Cost**	**75%**	**$ 10,000**	
	Each additional foot >100 feet	**Feet**		**Actual Cost**	**75%**	**$100/foot**	
		~~Feet~~		~~Actual Cost~~	~~75%~~	~~$ 5,000~~	
Structural Stormwater Conveyance		Each		Actual Cost	75%	$ 4,000	

NC CCAP **DRAFT FY2022 Cost List**

Best Management Practice	Components	Unit Type	All Areas Unit Cost	Cost Type	Share Rate	Cost Share Cap *	Notes
	Structural stormwater conveyance - engineering	Job		Actual Cost	75%	$ 1,667	

The cost share cap listed above is the maximum amount of cost share reimbursement allowed.

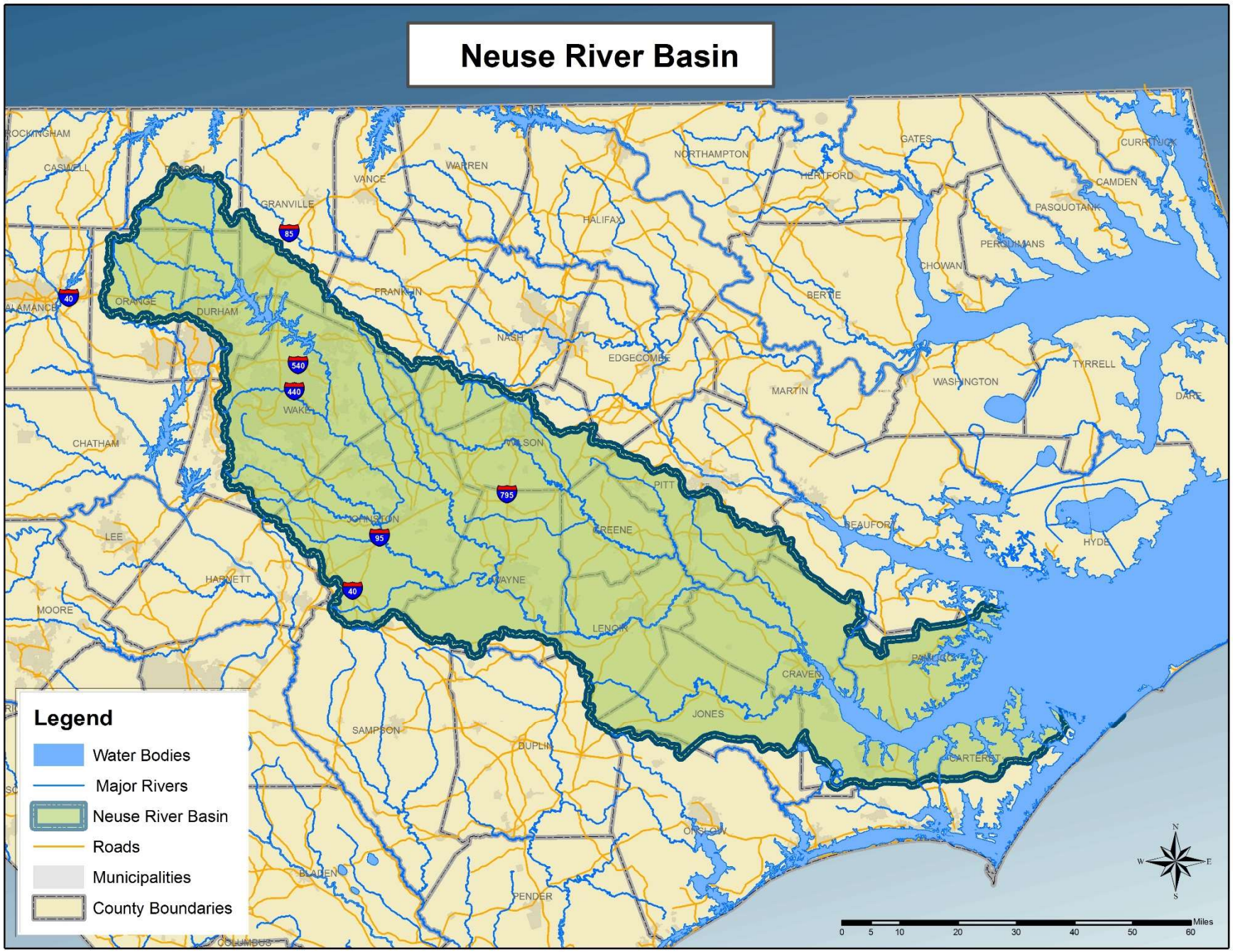
ATTACHMENT 11

NCDA&CS

2021 Annual Progress Report (Crop Year 2020) on the Neuse Agricultural Rule (15 A NCAC 2B.0712)

A Report to the Division of Water Resources from the Neuse Basin Oversight Committee: Crop Year 2020

Date approved by Neuse Basin Oversight Committee: October 4, 2021
Date submitted to NC Division of Water Resources: October 5, 2021


Neuse River Basin
ROCKINGHAM
CASWELL
VANCE
WARREN
GRANVILLE
NORTHAMPTON
GATES
CURRITUCK
HERTFORD
CAMDEN
PASQUOTANK
HALIFAX
PERQUIMANS
CHOWAN
ORANGE
DURHAM
FRANKLIN
BERTIE
NASH
EDGECOMBE
TYRRELL
WASHINGTON
MARTIN
DARE
WAKE
CHATHAM
WILSON
PITT
JOHNSTON
GREENE
BEAUFORT
HYDE
LEE
HARNETT
WAYNE
MOORE
LENOIR
CRAVEN
JONES
SAMPSON
DUPLIN
CARTERET
ONSLOW
BLADEN
PENDER
COLUMBUS
Legend
Water Bodies
Major Rivers
Neuse River Basin
Roads
Municipalities
County Boundaries
N
W
E
S
0 5 10 20 30 40 50 60
Miles

Summary

The Neuse Basin Oversight Committee (BOC) received and approved crop year (CY[1]) 2020 annual reports estimating the progress from the seventeen Local Advisory Committees (LACs) operating under the Neuse Agriculture rule as part of the Neuse Basin Nutrient Management Strategy. This report demonstrates agriculture's ongoing collective compliance with the Neuse Agriculture Rule and estimates producer progress in decreasing nutrients. In CY2020, agriculture collectively achieved an estimated 48% reduction in nitrogen loss from agricultural lands compared to the 1991-1995 baseline, continuing to exceed the rule-mandated 30% reduction. Fifteen of the seventeen LACs exceeded the 30% reduction goal established by the BOC. The main reason for the greater nitrogen reduction in these counties is cropping shifts to crops with lower nitrogen demands and application rates.

Rule Requirements and Compliance History

Neuse Nutrient Sensitive Waters (NSW) Strategy

The Environmental Management Commission (EMC) adopted the Neuse nutrient strategy in December, 1997. The NSW strategy goal was to reduce the average annual load of nitrogen delivered to the Neuse River Estuary by 2003 from both point and non-point source pollution by a minimum of 30% of the average annual load from the baseline period (1991-1995). Mandatory nutrient controls were applied to address non-point source pollution in agriculture, urban stormwater, nutrient management, and riparian buffer protection. The overall 30% nitrogen loading reduction target for the Neuse River Estuary has not yet been reached.

Effective December 1997, the rule provides for a collective strategy for farmers to meet the 30% nitrogen loss reductions within five years. A BOC and seventeen LACs were established to implement the Neuse Agriculture rule and to assist farmers with complying with the rule.

All seventeen Local Advisory Committees (LACs) met as required in 2021. The LACs submitted their first annual report to the BOC in May 2002. That report estimated a collective 38% reduction in nitrogen loss with 12 of the 17 LACs exceeding 30% individually. In 2003, all LACs achieved their BOC recommended reduction goal. All counties are currently meeting their goal with the exception of Pamlico County, which reported an 11% reduction, and Carteret County, which reported a 25% reduction. Division of Soil and Water Conservation staff uses input from the LACs to calculate their annual reductions using the Nitrogen Loss Estimation Worksheet (NLEW). Adjustments are made to reflect the most up-to-date scientific research. These revisions lead to adjustments in both individual LAC and basinwide nitrogen loss reduction rates.

[1] The 2020 crop year began in October 2019 and ended in September 2020.

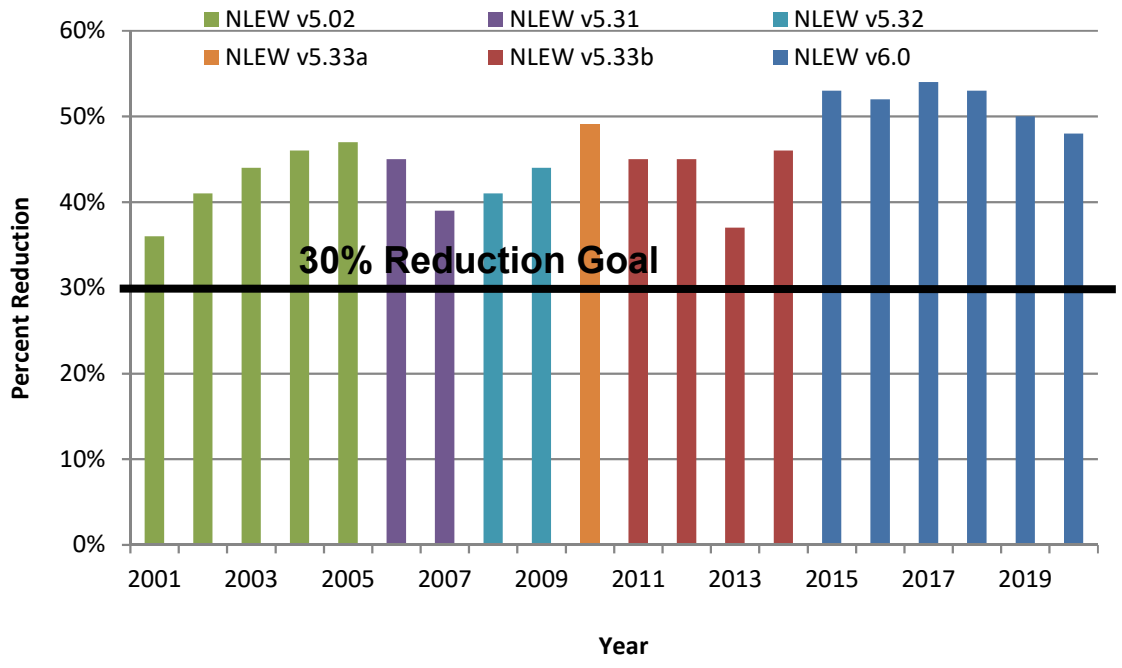
Scope of Report and Methodology

The estimates provided in this report represent whole-county scale calculations of nitrogen loss from cropland agriculture adjusted for acreage in the basin. These estimates were made by NC Division of Soil and Water Conservation (DSWC) staff using the 'aggregate' version of the Nitrogen Loss Estimation Worksheet, or NLEW, an accounting tool developed to meet the specifications of the Neuse Rule and approved by the EMC. The development team included interagency technical representatives of the NC Division of Water Resources (DWR), NC DSWC and USDA-Natural Resources Conservation Service (NRCS) and was led by NC State University Soil Science Department faculty. The NLEW captures application of both inorganic and animal waste sources of fertilizer to cropland. It does not capture the effects of nitrogen applied to pastureland and NLEW is an "edge-of-management unit" accounting tool; it estimates changes in nitrogen loss from croplands, but does not estimate changes in nitrogen loading to surface waters.

Annual Estimates of Nitrogen Loss and the Effect of NLEW Refinements

The NLEW software is periodically revised to incorporate new knowledge gained through research and improvements to data. These changes have incorporated the best available data, but changes to NLEW must be considered when comparing nitrogen loss reduction in different versions of NLEW. Further updates in soil management units are expected as NRCS produces updated electronic soils data. The small changes in soil management units are unlikely to produce significant effects on estimates of nitrogen loss reductions. Figure 1 represents the annual percent nitrogen loss reduction from the baseline for 2001 to 2020.

Figure 1. Collective Nitrogen Loss Reduction Percent 2001 to 2020 Based on NLEW, Neuse River Basin.



The first NLEW reports were run in 2001, and agriculture has continued to exceed its collective 30% nitrogen reduction goal since that time. The first NLEW revision (v5.31) marked a significant decrease in the nitrogen reduction efficiencies of buffers based on the best available research information, so baseline and CY2005 were re-calculated, and soil management units were revised. The second (v5.32) and third (v5.33a) revisions were minor updates of soil mapping units. In April of 2011 the NLEW Committee established further reductions (v5.33b) in nitrogen removal efficiencies for buffers based on additional research. In 2016 NLEW software was updated (v6.0) from outdated software and transferred to a web-based platform on NCDA&CS servers. Revised realistic yield and nitrogen use efficiency data from NCSU were incorporated, and some minor calculation errors were corrected for corn, sweet potatoes, and sweet corn. Table 1 lists the changes in buffer nitrogen reduction efficiencies over time.

Table 1. Changes in Buffer Width Options and Nitrogen Reduction Efficiencies in NLEW

Buffer Width	NLEW v5.02 % N Reduction 2001-2005	NLEW v5.31, v5.32, v5.33a % N Reduction 2006-2010	NLEW v5.33b, v6.0 % N Reduction 2011-Current
20’	40% (grass)* 75% (trees and shrubs)*	30%	20%
30'	65%	40%	25%
50'	85%	50%	30%
70'	85%	55%	30%
100'	85%	60%	35%

**NLEW v5.02 - the vegetation type (i.e. trees, shrubs, grass) within 20' and 50' buffers determined reduction values. Based on research results, this distinction was dropped from subsequent NLEW versions.*

Current Status

Nitrogen Reduction from Baseline for CY2020

All seventeen LACs submitted their nineteenth annual reports to the BOC for approval in October 2021. For the entire basin, in CY2020 agriculture achieved a 48% reduction in nitrogen loss compared to the 1991-1995 baseline. This percentage is 2% lower than the reduction reported for CY2019. Table 2 lists each county's baseline, CY2019 and CY2020 nitrogen (lbs/yr) loss values, and nitrogen loss percent reductions from the baseline in CY2019 and CY2020.

*Table 2. Estimated Reductions in Agricultural Nitrogen Loss from Baseline (1991-1995) for CY2019 and CY2020, Neuse River Basin**

County	Baseline N Loss (lb)	CY2019 N Loss (lb)*	CY2019 N Reduction (%)	CY2020 N Loss (lb)*	CY2020 N Reduction (%)
Carteret	1,292,586	924,212	28%	966,672	25%
Craven	4,153,187	2,212,062	47%	1,980,469	52%
Durham	220,309	33,200	85%	36,470	83%
Franklin	219,209	32,658	85%	46,455	79%
Granville	193,197	35,648	82%	46,313	76%
Greene	4,439,036	2,163,599	51%	2,466,268	44%
Johnston	6,728,638	3,258,752	52%	3,489,180	48%
Jones	3,283,906	2,137,675	35%	1,785,255	46%
Lenoir	4,455,752	3,017,003	32%	2,909,603	35%
Nash	1,042,072	409,114	61%	395,104	62%
Orange	787,040	70,078	91%	85,586	89%
Pamlico	2,023,294	1,726,786	15%	1,800,264	11%
Person	616,669	53,223	91%	103,721	83%
Pitt	3,399,455	2,001,001	41%	1,982,978	42%
Wake	1,434,602	264,197	82%	310,103	78%
Wayne	8,297,408	3,142,220	62%	3,594,017	57%
Wilson	3,273,647	1,692,240	48%	1,744,588	47%
Total	45,860,007	22,957,806	50%	23,743,048	48%

** Nitrogen loss values are for comparative purposes. They represent nitrogen that was applied to agricultural lands in the basin and neither used by crops nor intercepted by BMPs in a Soil Management Unit, based on NLEW calculations. This is not an in-stream loading value.*

Nitrogen loss reductions were achieved through a combination of fertilization rate decreases, cropping shifts, BMP implementation, and cropland acreage fluctuation. Some of this cropping shift is due to the need for regular rotations on agricultural operations. In order to minimize the threat of disease the double-crop planting of wheat and soybeans is usually followed by a corn crop. This means that fluctuations within this rotation are to be expected from year to

year even in the face of similar weather conditions. Low cotton prices in the spring of 2020 resulted in a notable decrease in cotton acres from CY2019. Overall corn planting decreased by 5,435 acres from CY2019 totals, but corn acreage in CY2020 remained roughly 15,500 acres above corn acreage reported in CY2018. Overall soybean acres increased by roughly 23,000 acres from CY2019 totals. Wheat acres increased by almost 23,000 acres during CY2020 likely in part due to improved agricultural conditions from those in CY 2019. A mix of rain events and dry days in October 2019 gave farmers greater opportunity to harvest summer crops and plant winter crops including wheat[2]. Although 2020 was the second wettest year on record dating back to 1895, the winter of 2019/20 was abnormally dry with unseasonably warm conditions in February and March, enabling smoother harvest of winter crops and activating an earlier growing season[3]. Factors that influence agricultural nitrogen reductions are shown in Table 3.

Pamlico and Carteret Counties are working to improve their reduction, which decreased this year primarily due to a transition from crops with lower nitrogen input to crops with higher nitrogen input, as well as a methodological adjustment of cumulative BMP acres that initially changed with CY 2019 reporting (practices did not change - see "BMP Implementation" section). From CY2019 to CY2020, Pamlico experienced an increase of 678 acres of corn and a decrease of 397 acres of soybeans. From CY2018 to CY2020, Pamlico experienced an increase of 1,657 acres of corn and a decrease of 1,231 acres of soybeans and 1,186 acres of wheat. In CY2018, Pamlico nearly met the 30% reduction goal primarily due to reduction gains from BMP implementation and cropland shift from baseline values. Reduction gains from cropland loss have remained consistent over the last three crop years, while gains due to BMP implementation and cropland shift were cut in CY2019 and CY2020 for the reasons previously mentioned and further discussed in "BMP implementation." As of CY2018 it was estimated that over 40% of agricultural land in Pamlico County has some form of controlled drainage utilizing water control structures. The Pamlico Soil and Water Conservation District Board has included water control structure implementation and verification as a top priority in their FY2022 NC Agriculture Cost Share Program (ACSP) strategic plan so reduction gains for BMP implementation in the county can be reported with greater accuracy. Meanwhile, agriculture in the portion of Carteret County lying in the Neuse River Basin consists predominantly of Open Grounds Farm, where corn and soybean acreages remained consistent with those reported in CY2019, following regular cropping rotations. The DSWC, LACs and additional stakeholders are working with the agricultural community in Carteret and Pamlico counties to communicate the need for more BMP installation at existing commodity outreach events. The BOC will continue to focus its efforts to monitor these counties' progress and encourage BMP implementation.

The NLEW outputs and staff calculations estimate the factors that contributed to the nitrogen reduction by the percentages shown in Table 3.

[2] Davis, C. 2019. The Heat Backed Off and Rain Picked Up in October. Prepared by North Carolina State Climate Office for the Climate Blog, Climate Summary. https://climate.ncsu.edu/blog/2019/11/the-heat-backed-off-and-rain-picked-up-in-october/

[3] Davis, C. and K. Dello. 2021. An Extreme, Unusual 2020: the Weather Year in Review. Prepared by North Carolina State Climate Office for the Climate Blog, Climate Summary. https://climate.ncsu.edu/blog/2021/01/an-extreme-unusual-2020-the-weather-year-in-review/

*Table 3. Factors That Influence Nitrogen Reduction on Agricultural Lands (by percentage), Neuse River Basin Since Baseline**

Practice	CY2017	CY2018	CY2019	CY2020
BMP implementation	10%	9%	6%	5%
Fertilization management	13%	9%	13%	11%
Cropping shift	19%	19%	15%	15%
Cropland converted to grass/trees	2%	2%	2%	2%
Cropland lost to idle land	2%	6%	6%	7%
Cropland lost to development	8%	8%	8%	8%
Total	54%	53%	50%	48%

**Percentages are based on a total of the reduction from baseline, not a year-to-year comparison.*

BMP Implementation

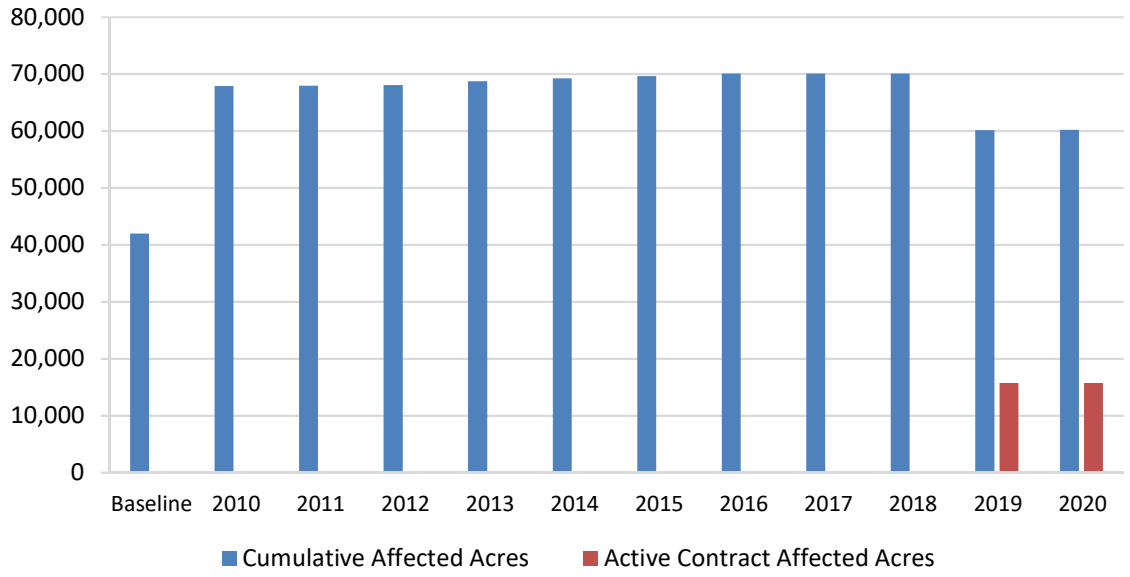
BMP implementation is one of the factors that influence nitrogen reduction on agricultural land. In low elevation coastal counties near and around the Neuse estuary the predominant BMPs being implemented by agricultural producers are water control structures. These practices are normally implemented to control salinity and soil moisture, but they have an additional benefit of allowing for increased denitrification. Since baseline, Craven and Pamlico Counties implemented controlled drainage affecting roughly 18,000 and 15,000 acres respectively. Many of these practices were implemented over a decade ago and are no longer under active cost-share contracts. Every effort is made to ensure that BMPs currently being reported continue to function as designed. Verification of this functionality requires site visits to individual farm owners who may or may not have this BMP under an active cost-share contract. Coastal counties have reported that despite contract expirations for practices installed more than 10 years ago, the water control structures which have been checked and which are no longer covered by an operation and maintenance agreement are still being actively managed by producers.

In this report, all acres affected by water control structures reported in CY2010 were manually removed from each county's total to ensure that all affected acres currently being reported are for active contracts only. This reporting change began in CY2019. Members of each LAC in coastal counties were notified in Fall 2019 that inactive contract acres, starting in CY2019 and moving forward, will not be included in BMP totals until each District either manually confirms that the older structures are still operational and being actively managed, or until the producer signs a new cost share contract. Operational structure confirmation will ensure that affected acres are not being reported for farms which are no longer in operation. Each producer who still farms and actively manages their operation's drainage is eligible for a repair contract to replace worn out materials, which restarts the 10-year operation and maintenance agreement requiring periodic spot checks to verify practice functionality and compliance with Soil and Water Conservation Commission policies. Contracts which are re-enrolled in the Agriculture Cost Share Program or structures which are field verified as still functioning were re-added to the cumulative acre total. Several Districts have indicated an interest and willingness in re-engaging some of these past cooperators.

The removal of inactive contract BMP acres from annual reports has resulted in a smaller nitrogen loss reduction mainly in coastal counties in CY2020. This includes significant changes in Carteret, Craven, Pamlico, Jones, Lenoir, Pitt, and Wayne counties. It is important to note that this abrupt reduction, first seen in the CY2019 report, is primarily based on a methodological change and not on farmer behavior or BMP functionality. The BOC still expects that most acres where controlled drainage practices were implemented are still actively being managed, but in order to ensure ongoing engagement with landowners the BOC has decided to adjust reporting guidelines. Due to ever-present landowner demand, increased prioritization and implementation of water control structure contracts is still evident in many of these counties, and the BOC expects this trend to continue into the future as precipitation patterns change.

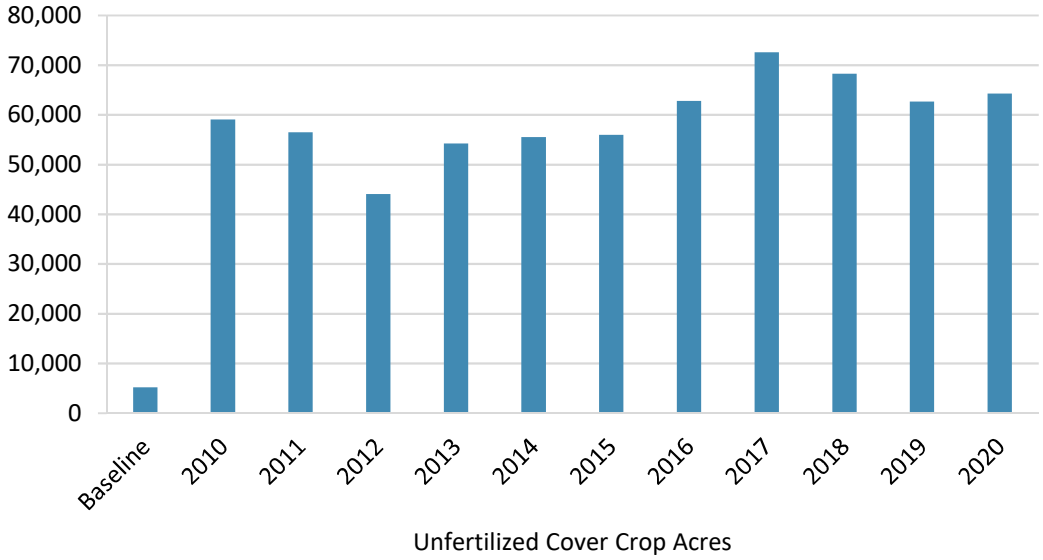
As previously mentioned, Carteret County's predominant agricultural producer in the portion of the county lying within the Neuse River Basin is Open Grounds Farm. This facility, which is owned by a foreign company, cultivates over 20,000 acres annually. Carteret Soil and Water Conservation District staff has confirmed with the Open Grounds farm manager that approximately 60% of their overall acres are under controlled drainage via water control structures. As a result, the total cumulative acres in this BMP category have been adjusted to 60% of their annual crop total, since all practices which were originally installed at Open Grounds Farm are being maintained for their original purpose. All other contracts in Carteret County were removed from the cumulative and active contract totals starting in CY2019 since most of those properties are no longer under active cultivation.

Figure 2. Acres Affected by Water Control Structures for Baseline (1991-1995) and Installed from CY2010 to CY2020, Neuse River Basin



The Division of Soil and Water Conservation, Soil and Water Conservation Districts and Natural Resources Conservation Service staff continue to make refinements to the NLEW accounting process as opportunities arise. LAC members estimate annual unfertilized cover crop acres based on crop rotations, producer cropping history, state and federal incentive programs, weather patterns, and seed prices. Buffer and water control structure BMP data is collected from state and federal cost share program active contracts, and in some cases (especially unfertilized cover crops) BMPs that were installed without cost share funding. While there is some opportunity for variability in the data reported, LACs are including data that is the best information currently available. As additional sound data sources become available, the LACs will review these sources and update their methodology for reporting if warranted. As illustrated in Figure 3, CY2020 BMP implementation yielded a net increase of 1,591 unfertilized cover crop acres.

Figure 3. Unfertilized Cover Crop Acres Planted Annually on Agricultural Lands for Baseline (1991-1995) and Installed from CY2010 through CY2020, Neuse River Basin



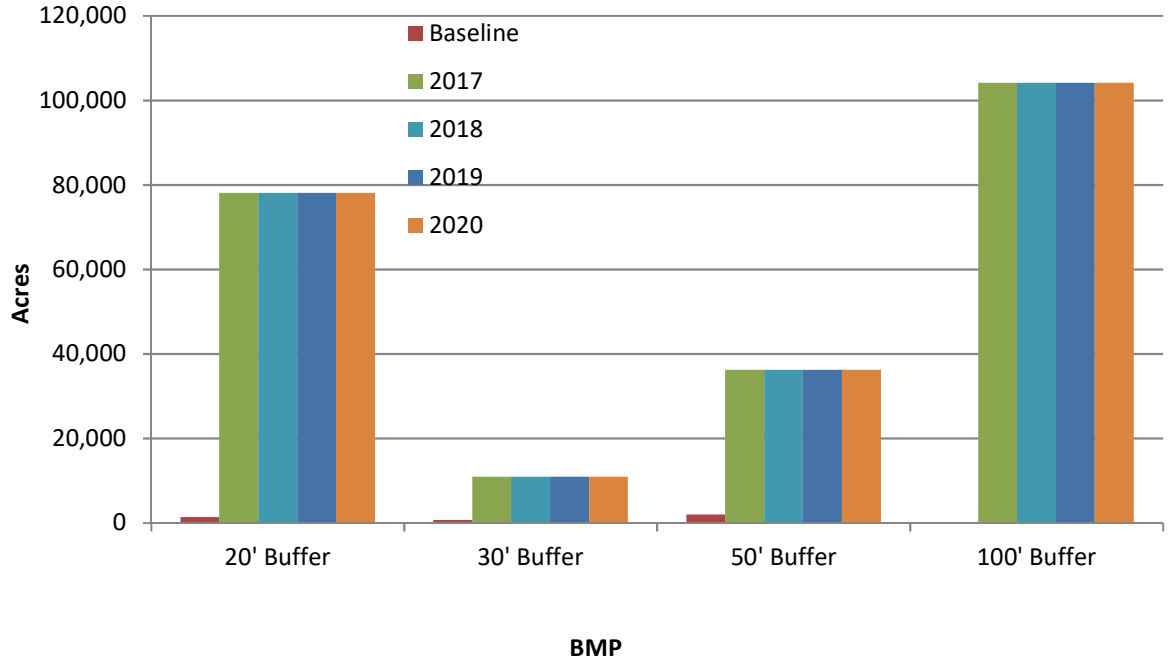
An accurate reassessment of active agricultural land and remaining buffer systems, through GIS analysis or other tools, is needed due to the rate at which urbanizing counties have lost agricultural land. Such assessments will depend on data availability from state and federal agencies. The BOC is considering the feasibility of such assessments for future reporting.

Based on the comparison of total cropland acres and state or federal cost share program BMPs, it is estimated that over a third of the Neuse River Basin's cropland receives treatment from reported nitrogen reducing BMPs.[4] This does not include farmer-installed BMPs that are not funded by cost share programs except in some cases where District staff is made aware of work that has been completed. Additionally, the estimated acres do not take into account the entire drainage area treated by buffers in the piedmont, which is generally 5 to 10 times higher than the actual acres of the buffer shown in Figure 4.[5] Overall, the total acres of implementation of BMPs have increased since the baseline, as illustrated in Figures 2, 3 and 4. The BMP installation goals were set by the local nitrogen reduction strategy, which was approved by the EMC in 1999. Agriculture exceeded all of these goals in CY2008. As shown in Figure 4, four additional acres of 20 foot buffers, six additional acres of 30 foot buffers, and two additional acres of 50 foot buffers were implemented in CY2020.

[4] Osmond, D.L., K. Neas. 2011. Delineating Agriculture in the Neuse River Basin. Prepared for NC Department of Environment and Natural Resources (NCDENR), Division of Water Quality. http://content.ces.ncsu.edu/delineating-agriculture-in-the-neuse-river-basin

[5] Bruton, Jeffrey Griffin. 2004. Headwater Catchments: Estimating Surface Drainage Extent Across North Carolina and Correlations Between Landuse, Near Stream, and Water Quality Indicators in the Piedmont Physiographic Region. Ph.D. Dissertation. Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC 27606. http://www.lib.ncsu.edu/theses/available/etd-03282004-174056/

*Figure 4. Buffer Acres Present on Agricultural Lands for Baseline (1991) and Installed from CY2017 through CY2020, Neuse River Basin**



**The acres of buffers listed represent actual acres. Acres affected by the buffer could be 5 to 10 times larger in the piedmont than the acreage shown above.* [6]

Additional Nutrient BMPs

Not all types of nutrient-reducing BMPs are tracked by NLEW. These include livestock-related nitrogen and phosphorus reducing BMPs, BMPs that reduce soil and phosphorus loss, and BMPs that do not have enough scientific research to support a nitrogen reduction benefit. The BOC believes it is worthwhile to recognize these practices. Table 4 identifies BMPs not accounted for in NLEW and tracks their implementation in the basin since CY1996. Table 5 indicates the total number of BMPs not accounted for in NLEW, which are under active contract (implemented from CY2010 to CY2020).

Since baseline, increased implementation numbers are evident across most BMP types. In CY2020, most of the additional nutrient BMPs (which are listed in Tables 4 and 5) experienced implementation increases compared to BMP acreage in CY2019. Some of these BMPs will yield reductions in nitrogen loss that are not reflected in the NLEW accounting in this report but will benefit the estuary.

[6] Bruton, Headwater Catchments: Estimating Surface Drainage Extent Across North Carolina and Correlations Between Landuse, Near Stream, and Water Quality Indicators in the Piedmont Physiographic Region. Ph.D. Dissertation. Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC 27606. http://www.lib.ncsu.edu/theses/available/etd-03282004-174056/

*Table 4. Nutrient-Reducing Best Management Practices Not Accounted for in NLEW, CY1996 to CY2020, Neuse River Basin**

BMP	Units	1996-2018	2019	2020
Diversion	Feet	180,717	183,017	185,317
Fencing (USDA programs)	Feet	234,827	239,587	239,587
Field Border	Acres	5,949	5,955	5,959
Grassed Waterway	Acres	2,501	2,517	2,531
Livestock Exclusion	Feet	149,501	151,648	153,795
Precision Agriculture	Acres	4,672	4,672	5,326
Sod Based Rotation	Acres	109,314	111,304	122,619
Tillage Management	Acres	61,384	62,478	63,634
Terraces	Feet	77,633	77,633	77,633

** Cumulative data quantified by adding BMPs implemented with State and Federal cost share program funding each Crop Year to cumulative totals reported the previous Crop Year. Additional BMPs may exist in the basin as practices may be installed by farmers without cost share assistance.*

*Table 5. Nutrient-Reducing Best Management Practices installed from CY2010 to CY2020, Not Accounted for in NLEW**

BMP	Units	BMPs Installed (CY2010 – CY2020)
Diversion	Feet	36,208
Fencing (USDA programs)	Feet	127,558
Field Border	Acres	2,659
Grassed Waterway	Acres	275
Livestock Exclusion	Feet	79,042
Precision Agriculture	Acres	5,326
Sod Based Rotation	Acres	73,488
Tillage Management	Acres	32,689
Terraces	Feet	27,663

** Values represent only active contracts in State and Federal cost share programs. Additional BMPs may exist in the basin as producers may maintain practices after the life of a cost share contract. Practices installed by producers without cost share assistance are not included in BMP totals.*

Fertilization Management

Better nutrient management in the Neuse River has resulted in a reduction of fertilizer application rates from baseline levels. Despite annual fluctuations, fertilization rates for all major crops in the basin have been reduced from the baseline period.

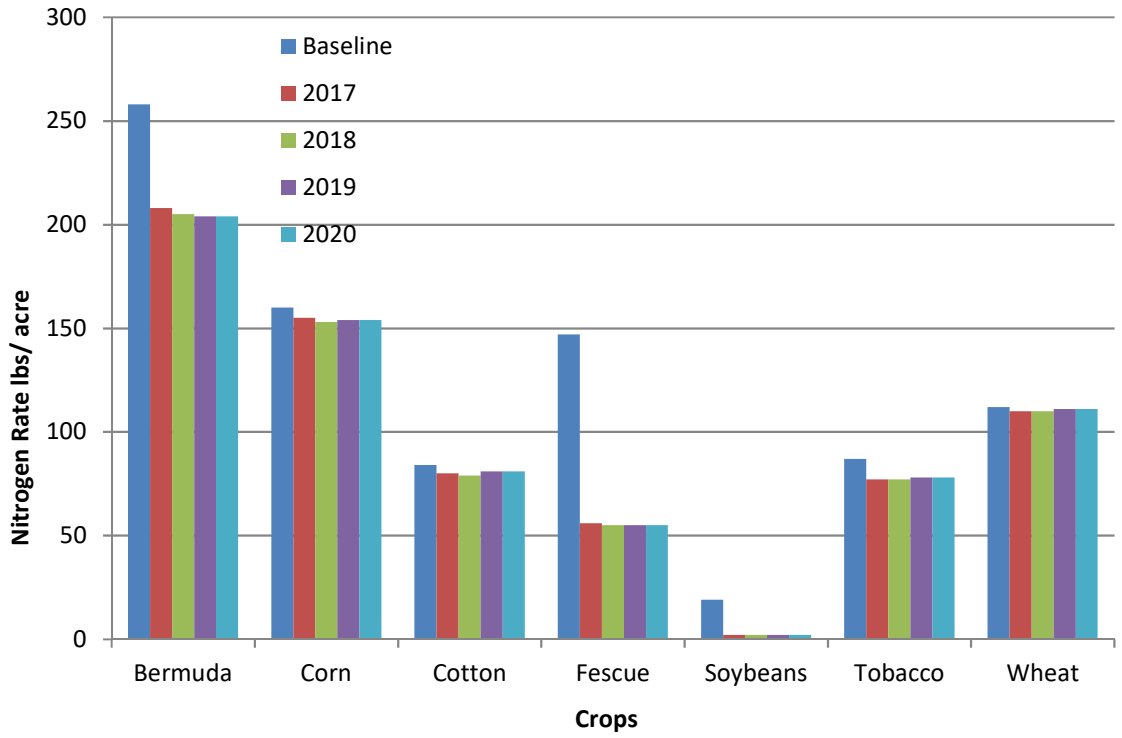
Between CY2019 and CY2020 nitrogen application rates remained relatively stable (less than 5 lbs/acre fluctuations) for fescue, cotton, corn, tobacco, soybeans, wheat, and bermuda. Figure 5 shows these application rates.

Factors Identified by LACs Contributing to Reduced Nitrogen Application Rates

- Economic decisions and fluctuating farm incomes.
- Increased education and outreach on nutrient management
- Mandatory animal waste management plans
- The federal government tobacco quota buy-out reducing tobacco acreage.
- Neuse and Tar-Pamlico Nutrient Strategies

Over time there has been an economic incentive for producers to improve nitrogen management. Fertilizer rates and standard application practices are revisited annually by LACs using data from farmers, commercial applicators and state and federal agencies' professional estimates.

Figure 5. Average Annual Nitrogen Fertilization Rate (lbs/ac) for Agricultural Crops for the baseline (1991-1995) and 2017-2020, Neuse River Basin

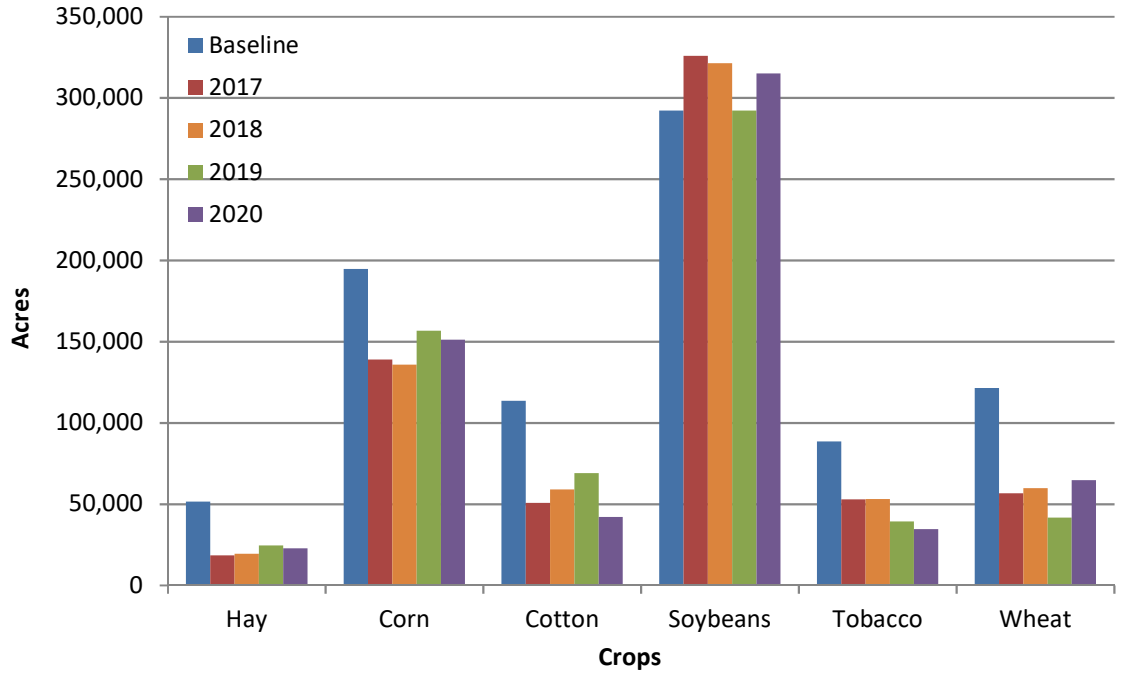


Cropping Shifts

The LACs recalculate the cropland acreage annually by utilizing crop data reported by farmers to the Farm Service Agency. Because each crop type requires different amounts of nitrogen and utilizes applied nitrogen with a different efficiency rate, changes in the mix of crops grown can have significant impact on the cumulative yearly nitrogen loss reduction. The BOC anticipates that the basin will see additional crop shifts in the upcoming year based on changing commodity prices and weather patterns.

Corn requires higher nitrogen application rates than other crops. From CY2019 to CY2020, corn acres decreased by 5,435 acres; however, CY2020 corn acreage was roughly 15,500 acres above reported corn acreage in CY2018. Cotton prices were low in CY2020 and cotton acreage consequently decreased by almost 27,000 acres from CY2019 to CY2020. Soybean acres, which require no nitrogen input, increased over 23,000 acres between CY2019 and CY2020; however soybean acreage remains approximately 6,250 acres below total soybean acreage reported in CY2018. Wheat acres, many of which are planted in a double-crop rotation with soybeans, increased by 22,963 acres, and tobacco acres decreased by almost 4,640 acres between CY2019 and CY2020; an 18,525-acre reduction from CY2018. These cropping shifts caused a slight increase in overall nitrogen loss. A host of factors from individual choice to global markets determine crop selection.

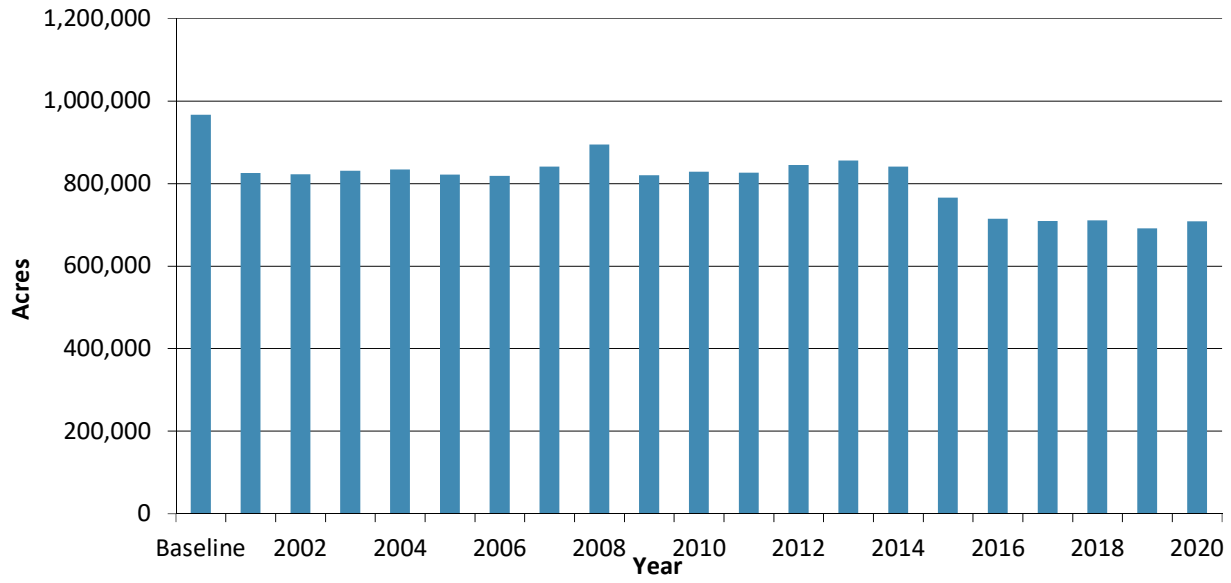
Figure 6. Acreage of Major Crops for the Baseline (1991-1995) and 2017-2020, Neuse River Basin



Land Use Change to Development, Idle Land and Cropland Conversion

The number of cropland acres fluctuates every year in the Neuse River Basin. Each year, some cropland is permanently lost to development or converted to grass or trees, while some cropland is temporarily taken out of production. Idle land represents agricultural land that is currently out of production but could be brought back into production at any time. Cropland conversion and cropland lost to development represents land taken out of agricultural production that is unlikely to be returned to production. Currently, it is estimated that more than 81,000 acres have been lost to development, and currently 23,386 acres have been converted to grass or trees since the baseline. For CY2020 there were 70,809 idle acres and a total of 708,113 NLEW-accountable crop acres. These estimates come from the LAC members' best professional judgment, USDA-FSA records and county planning departments. Cropland acres have continued to decrease from the baseline period, although CY2020 experienced an increase of 16,849 crop acres from CY2019 (see Figure 7).

Figure 7. Total NLEW Accounted Crop Acres in the Neuse River Basin, Baseline (1991-1995) and 2001-2020.



Looking Forward

The Neuse BOC will continue to report on rule implementation, relying heavily on Soil and Water Conservation District staff to compile crop reports. The BOC continues to encourage counties to implement additional BMPs to further reduce nitrogen loss.

Because cropping shifts are susceptible to various pressures, the BOC is working with LACs in all counties to continue BMP implementation that provides lasting reduction in nitrogen loss in the basin.

The Neuse BOC will continue to monitor and evaluate crop trends. The current shift to and from crops with higher nitrogen requirements may continue to influence the yearly reduction.

Basin Oversight Committee recognizes the dynamic nature of agricultural business.

- Changes in world economies, energy or trade policies.
- Changes in government programs (i.e., commodity support or environmental regulations)
- Weather and climate (i.e., long periods of drought or rain)
- Scientific advances in agronomics (i.e., production of new types of crops or improvements in crop performance)
- Plant disease or pest problems (i.e., viruses or foreign pests)
- Urban encroachment (i.e., crop selection shifts as fields become smaller)
- Age of farmer (i.e, as retirement approaches farmers may move from row crops to cattle)

Funding

Ongoing agriculture rule reporting has incorporated data processing efficiencies and improvements in recent years. NLEW upgrades have allowed LAC members to more actively participate in the compilation of data and analysis of nitrogen loss trends, and a new Division of Soil and Water Conservation contracting system has helped optimize BMP documentation efforts.

In CY2020, soil and water conservation districts spent over $879,000 through the Agriculture Cost Share Program in the Neuse River Basin using recurring state appropriated funds and non-recurring disaster relief funds for BMP implementation. The Natural Resources Conservation Service spent over $1,404,000 through the Environmental Quality Incentives Program in the counties of the Neuse River Basin. These programs have all helped fund erosion and nutrient reducing BMPs in the Neuse Basin.

The EPA 319(h) grant program, which is administered by the Department of Environmental Quality, has approximately $1 million in competitive grant funds available statewide for implementation of approved nonpoint source management programs. Grant funds from the 319(h) program can be used to supplement technical assistance, match cost share funding, and support BMP implementation. The Division of Soil and Water Conservation, funded through an EPA 319(h) grant, expends approximately $50,000 on agricultural reporting staff support annually.

Each year, 150 LAC members contribute to agriculture rule reporting to ensure accurate documentation of agricultural acres and fertilization rates. Farmers and agency staff with other

responsibilities serve on the LACs in a voluntary capacity. Basin Oversight Committee members meet at least once per year to review and approve this annual progress report, which includes time spent outside of that annual meeting to review draft documents and approve methodology changes. Participation by so many members of the local agricultural community demonstrates a commitment toward achieving the nutrient strategy's long-term goals.

With less funding available for reporting support at the state level, responsibility for compilation of annual local progress reports falls on these LACs and Soil and Water Conservation District staff. Few currently serving LAC members were active during the stakeholder process for the Agriculture Rule, so some institutional knowledge about annual reporting requirements has been lost. As a result, training of new Soil and Water Conservation District staff and LAC members regarding rule requirements and reporting is ongoing.

Funding is an integral part in the success of reaching and maintaining the goal through technical assistance and BMP implementation. It is also important for data collection and reporting.

In the early years of Neuse Agriculture Rule reporting, grant funding supported technicians and basin coordinators at Soil and Water Conservation Districts to assist with reporting requirements. At the present time there is no funding for full-time Neuse basin coordinators or technicians. Consequently, in addition to other duties, the NCDA&CS Division of Soil and Water Conservation Nonpoint Source Planning Coordinator was assigned the data collection, compilation and reporting duties for the Neuse Agriculture Rule and for all other basins and watersheds subject to existing Nutrient Sensitive Waters Strategies and Agriculture Rules.

With funding and staff reductions, a more centralized approach to data collection and verification is necessary. This evolving approach may involve developing additional GIS analysis tools and streamlining FSA acreage documentation. New tools will be vetted by the BOC and may be incorporated into the agriculture rule accounting methodology. As methods change, LACs will be trained to handle the changing workloads to the best of their ability. Because most district staff have neither the time nor financial resources to synthesize county level data, centralized collection approaches will come at the expense of local knowledge. Annual agricultural reporting is required by the rules; therefore, continued funding for the Division's only remaining nutrient coordinator position is essential for compliance.

Previously, funding was available for research on conservation practice effectiveness, realistic yields, and nitrogen use efficiencies. Due to eligibility changes and other funding constraints, it is unlikely that new data will be developed. Prior funding sources for such research, which provided much of the scientific information on which NLEW was based, are no longer available. Should new funding be made available, additional North Carolina-specific research information should be incorporated into future NLEW updates.

Conclusion

Significant progress has been made in agricultural nitrogen loss reduction, and the agricultural community consistently reaches its 30% reduction goal. However, the measurable effects of management changes and conservation practice implementation on overall in-stream nitrogen reduction may take years to develop due to the nature of non-point source pollution. Nitrogen reduction values presented in this annual summary of agricultural reductions reflect "edge-of-management unit" calculations that contribute to achieving the overall 30% nitrogen loss reduction goal. Significant quantities of agricultural BMPs have been installed since the adoption and implementation of the nutrient management strategy, and agriculture continues to fulfill its obligations toward achieving the collective goal of a 30% reduction of nitrogen delivered to the Neuse estuary.

ATTACHMENT 11

NCDA&CS

2021 Annual Progress Report (Crop Year 2020) on the Tar-Pamlico Agricultural Rule (15A NCAC 02B .0732)

A Report to the Division of Water Resources from the Tar-Pamlico Basin Oversight Committee: Crop Year 2020

Date approved by Tar-Pamlico Basin Oversight Committee: 10.29.21
Date submitted to NC Division of Water Resources: 11.01.21


Tar-Pamlico River Basin
PERSON
VANCE
WARREN
GRANVILLE
HALIFAX
NORTHAMPTON
GATES
CURRITUCK
HERTFORD
CAMDEN
PASQUOTANK
PERQUIMANS
CHOWAN
FRANKLIN
BERTIE
ORANGE
DURHAM
NASH
EDGECOMBE
TYRRELL
WASHINGTON
MARTIN
WAKE
DARE
JOHNSTON
PITT
LEE
GREENE
BEAUFORT
HYDE
HARNETT
WAYNE
LENOIR
CRAVEN
JONES
DUPLIN
CARTERET
ONSLOW
PENDER
Legend
Water Bodies
Major Rivers
Tar-Pamlico River Basin
Roads
Municipalities
County Boundaries
N
W
E
S
0 5 10 20 30 40 50 60
Miles

Summary

The Tar-Pamlico Basin Oversight Committee (BOC) received and approved crop year[1] (CY) 2020 annual reports from the fourteen Local Advisory Committees (LACs) operating under the Tar-Pamlico Agriculture Rule as part of the Tar-Pamlico Basin Nutrient Management Strategy. The report demonstrates agriculture's ongoing collective compliance with the Tar-Pamlico Agriculture Rule and estimates further progress in decreasing nutrient losses. In CY2020, agriculture collectively achieved an estimated 53% reduction in nitrogen loss compared to the 1991 baseline, continuing to exceed the rule-mandated 30% reduction. Thirteen of fourteen LACs exceeded the 30% reduction goal established by the BOC, with Martin County reporting a 25% nitrogen loss reduction from baseline. Phosphorus tracking in the basin indicates less risk of phosphorus loss during CY2020 than in the baseline year for 6 of the 9 qualitative indicators.

Rule Requirements and Compliance History

Tar-Pamlico NSW Strategy

The Environmental Management Commission (EMC) adopted the Tar-Pamlico nutrient strategy in 2000. The management strategy built upon the precedent-setting Neuse River Basin effort established three years earlier, which for the first time set regulatory reduction measures for nutrients on cropland acres in the state. The NSW strategy goal is to reduce the average annual load of nitrogen to the Pamlico estuary by 30% from 1991 levels and to limit phosphorus loading to 1991 levels. Mandatory controls were applied to address non-point source pollution in agriculture, urban stormwater, nutrient management, and riparian buffer protection. As of 2020, the Pamlico estuary is still classified as impaired and is not meeting its 30 percent nitrogen loading reduction goals.

Effective September 2001, the Tar-Pamlico Nutrient Sensitive Waters Management Strategy (NSW) provides for a collective strategy for farmers to meet the 30% nitrogen loss reduction and no-increase phosphorus goals within five years. A BOC and fourteen Local Advisory Committees (LACs) were established to implement the rule and to assist farmers with complying with the rule.

All fourteen LACs submitted their first annual report to the BOC in November 2003, which collectively estimated a 39% nitrogen loss reduction, and 10 of 14 LACs exceeded the 30% individually. Collective reductions gradually increased in succeeding years, and by CY2007 only one LAC did not meet the 30% goal. All LACs except one are currently exceeding the 30% reduction target.

Division of Soil and Water Conservation staff use input from the LACs to calculate their annual reductions using the Nitrogen Loss Estimation Worksheet (NLEW). All fourteen LACs met as required in 2021 and based on their input the collective reduction of 53% exceeded the mandated 30% in CY2020.

[1] The 2020 crop year began in October 2019 and ended in September 2020.

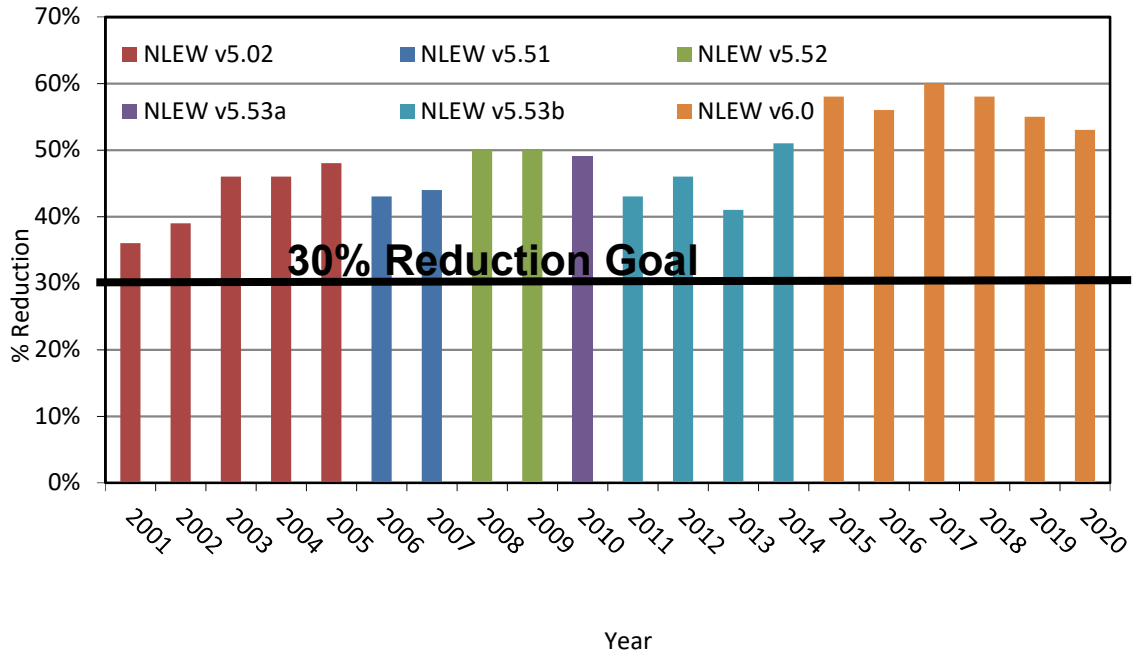
Scope of Report and Methodology

The estimates provided in this report represent whole-county scale calculations of nitrogen loss from cropland agriculture adjusted for acreage in the basin. These estimates were made by Division of Soil and Water Conservation staff using the 'aggregate' version of NLEW, an accounting tool developed to meet the specifications of the Neuse Rule and approved by the EMC for use in the Tar-Pamlico Basin. The development team included interagency technical representatives of the NC Division of Water Resources (DWR), NC Division of Soil and Water Conservation (DSWC), USDA-NRCS and was led by NC State University Soil Science Department faculty. NLEW captures application of both inorganic and animal waste sources of fertilizer to cropland. It is an "edge-of-management unit" accounting tool that estimates changes in nitrogen loss from croplands, but does not estimate changes in nitrogen loading to surface waters. An assessment method was developed for phosphorus, approved by the EMC, and is described later in the report.

Annual Estimates of N Loss and the Effect of NLEW Refinements

The NLEW software is periodically revised to incorporate new knowledge gained through research and improvements to data. These changes have incorporated the best available data, but changes to NLEW must be considered when comparing nitrogen loss reduction in different versions of NLEW. Further updates in soil management units are expected as NRCS produces updated electronic soils data. The small changes in soil management units are unlikely to produce significant effects on nitrogen loss reductions. Figure 1 represents the annual percent nitrogen loss reduction from the baseline for 2001 to 2020.

Figure 1: Collective Cropland Nitrogen Loss Reduction Percent 2001 to 2020, Tar Pamlico River Basin.



The first NLEW reports were run in 2001, and agriculture has continued to exceed its collective 30% nitrogen reduction goal since that time. The first NLEW revision (v5.51) updated soil management units and marked a significant change in the nitrogen reduction efficiencies of buffers, so both the baseline and CY2005 were re-calculated based on the best available information. The second (v5.52) and third (v5.53a) revisions were administrative and included minor updates to soil mapping units and realistic yields. In April of 2011 the NLEW Committee established further reductions (v5.53b) in nitrogen removal efficiencies for buffers based on additional research. In 2016 NLEW software was updated (v6.0) from outdated software and transferred to a web-based platform on NCDA&CS servers. Revised realistic yield and nitrogen use efficiency data from NCSU was incorporated, and some minor calculation errors were corrected for corn and sweet potatoes. Table 1 lists the changes in buffer nitrogen reduction efficiencies over time.

Table 1: Changes in Buffer Width Options and Nitrogen Reduction Efficiencies in NLEW

Buffer Width	NLEW v5.02* % N Reduction 2001-2005	NLEW v5.51, v5.52, v5.53a % N Reduction 2006-2010	NLEW v5.53b, v6.0 % N Reduction 2011-Current
20'	40% (grass) 75% (trees & shrubs)	30%	20%
30'	65%	40%	25%
50'	85%	50%	30%
70'	85%	55%	30%
100'	85%	60%	35%

**NLEW v5.02 - the vegetation type (i.e. trees, shrubs, grass) within 20' and 50' buffers determined reduction values. Based on research results, this distinction was dropped from subsequent NLEW versions.*

Current Status

Nitrogen Reduction from Baseline for CY2020

All fourteen LACs submitted their twentieth annual reports to the BOC in October 2021. For the entire basin, in CY2020 agriculture achieved a 53% reduction in nitrogen loss compared to the 1991 baseline. This percentage is 2% lower than the reduction reported for CY2019. This year, 13 LACs achieved the target 30% nitrogen loss reduction goal set by the BOC. Table 2 lists each county's baseline, CY2019 and CY2020 nitrogen (lbs/yr) loss values, and nitrogen loss percent reductions from the baseline in CY2019 and CY2020.

*Table 2: Estimated Reductions in Agricultural Nitrogen Loss from Baseline (1991) for CY2019 and CY2020, Tar-Pamlico River Basin**

County	Baseline N Loss (lb)*	CY2019 N Loss (lb)*	CY2019 N Reduction (%)	CY2020 N Loss (lb)*	CY2020 N Reduction (%)
Beaufort	9,178,262	4,565,622	50%	5,263,928	43%
Edgecombe	5,037,742	2,979,040	41%	2,747,702	45%
Franklin	2,183,680	464,095	79%	593,583	73%
Granville	890,371	104,151	88%	128,476	86%
Halifax	2,902,105	1,528,065**	47%**	1,336,513	54%
Hyde	5,501,161	2,345,846	57%	2,420,917	56%
Martin	782,152	611,387	22%	586,840	25%
Nash	4,693,868	1,412,895	70%	1,428,732	70%
Person	153,228	45,291	70%	66,409	57%
Pitt	6,229,921	3,028,674	51%	2,982,599	52%
Vance	419,485	66,094	84%	102,249	76%
Warren	535,517	198,770	63%	213,141	60%
Washington	939,912	543,014	42%	546,713	42%
Wilson	890,691	411,741	54%	421,245	53%
Total	40,338,095	18,304,685**	55%	18,839,047	53%

**Nitrogen loss values are for comparative purposes. They represent nitrogen that was applied to agricultural lands in the basin and neither used by crops nor intercepted by BMPs in a Soil Management Unit, based on NLEW calculations. This is not an in-stream loading value.*

***These numbers were adjusted since reported to correct spreadsheet errors*

Nitrogen loss reductions were achieved through a combination of fertilization rate decreases, cropping shifts, BMP implementation, and cropland acreage fluctuation. Some of this cropping shift is due to the need for regular rotations on agricultural operations. For example, in order to minimize the threat of disease, a double-crop planting of wheat and soybeans may be followed by a corn crop. This means that fluctuations within rotations are to be expected from year to year even in the face of similar weather conditions. Low cotton prices in the spring of 2020 resulted in a notable decrease in cotton acres from CY2019. Overall corn planting increased by 8,134 acres and overall soybean acres increased by roughly 23,000 acres from CY2019 totals. Wheat acres increased by a little over 10,000 acres from CY2019 totals, likely in

part due to improved agricultural conditions in CY2020. A mix of rain events and dry days in October 2019 gave farmers greater opportunity to harvest summer crops and plant winter crops including wheat[2]. Although 2020 was the second wettest year on record dating back to 1895, the winter of 2019/20 was abnormally dry with unseasonably warm conditions in February and March, enabling smoother harvest of winter crops and activating an earlier growing season[3]. Factors that influence agricultural nitrogen reductions are shown in Table 3.

Martin County is currently reporting a 25% nitrogen loss reduction from baseline; this is a 3% increase in reduction from CY2019. The Martin LAC is working to improve reduction to meet the 30% reduction target. Martin did not meet the 30% target this year as a result of cropping shifts and a methodological adjustment of cumulative BMP acres that was first implemented in the CY2019 report (practices did not change - see "BMP Implementation" section). From CY2019 to CY2020, the most significant crop changes Martin experienced include an increase of 536 acres of corn, a decrease of 1656 acres of cotton, and an increase in 1073 acres of soybeans.

The most significant factors affecting nitrogen loss reductions in the Tar-Pamlico basin are cropping shifts and improved fertilization management. Table 3 shows the NLEW outputs and staff calculations that estimate factor importance (by percentage) in achieving total collective nitrogen loss reduction in the basin (53%).

*Table 3: Factors that Influence Nitrogen Reduction by Percentage on Agricultural Lands, Tar-Pamlico River Basin Since Baseline**

Factor	CY2017	CY2018	CY2019	CY2020
BMP implementation	14%	15%	7%	6%
Fertilization Management	17%	15%	22%	20%
Cropping shift	17%	15%	13%	13%
Cropland converted to grass/trees	5%	5%	5%	5%
Cropland lost to idle land	6%	7%	7%	8%
Cropland lost to development	1%	1%	1%	1%
TOTAL	60%	58%	55%	53%

**Percentages are based on a total of the reduction, not a year-to-year comparison.*

[2] Davis, C. 2019. The Heat Backed Off and Rain Picked Up in October. Prepared by North Carolina State Climate Office for the Climate Blog, Climate Summary. https://climate.ncsu.edu/blog/2019/11/the-heat-backed-off-and-rain-picked-up-in-october/

[3] Davis, C. and K. Dello. 2021. An Extreme, Unusual 2020: the Weather Year in Review. Prepared by North Carolina State Climate Office for the Climate Blog, Climate Summary. https://climate.ncsu.edu/blog/2021/01/an-extreme-unusual-2020-the-weather-year-in-review/

BMP Implementation

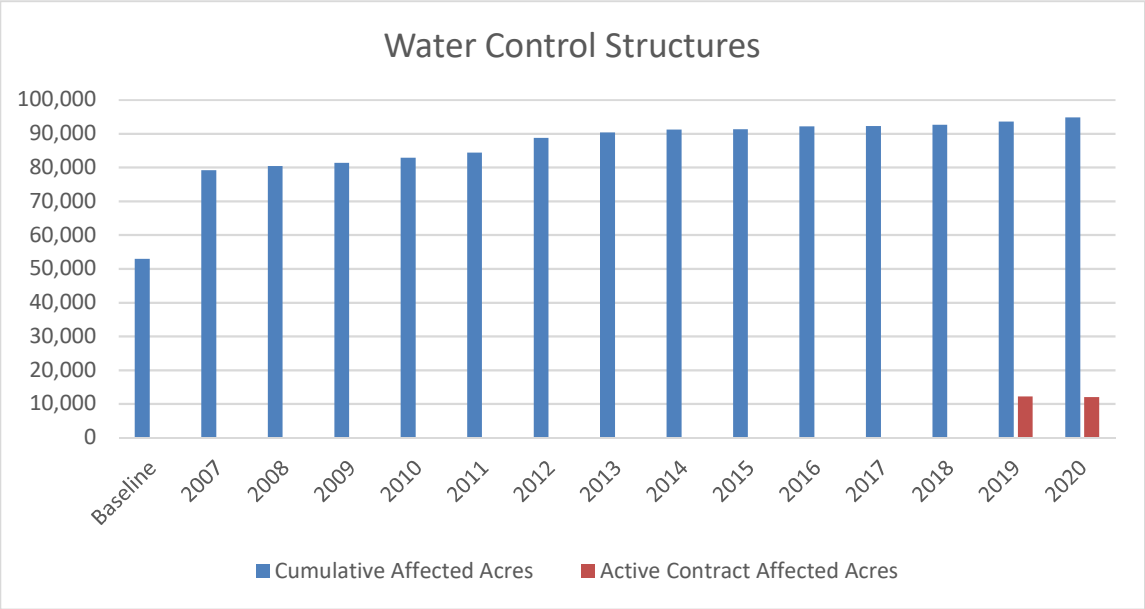
As illustrated in Figure 2, CY2020 yielded an increase of 5,298 acres of nutrient scavenger crops, 103 acres of 30' buffers, and 19 acres of 100' buffers from CY2019 totals. CY2020 experienced a decrease of 253 water control structure affected acres.

Since baseline, Beaufort and Hyde counties have implemented controlled drainage affecting roughly 45,000 and 26,000 acres respectively. Many of these practices/systems were implemented over a decade ago and are no longer under active cost-share contracts. Every effort is being made to ensure that BMPs currently being reported continue to function as designed. Verification of this functionality requires site visits to individual farm owners who may or may not be under active contract. Coastal counties have reported that despite contract expirations, the water control structures which have been checked and which are no longer covered by an operation and maintenance agreement are still being actively managed by producers.

In this report, all acres affected by water control structures reported in CY2010 were manually removed from each county's total to ensure that all affected acres currently being reported are for active contracts only. This reporting change began in CY2019. Members of each LAC in coastal counties were notified in Fall 2020 that inactive water control structure/drainage management contract acres, starting with annual reporting for CY2019 and moving forward, will not be included in BMP totals until each District either manually confirms that the older structures are still operational and being actively managed, or until the producer signs a new cost share contract. Operational structure confirmation will ensure that affected acres are not being reported for farms which are no longer in operation. Each producer who still farms and actively manages their operation's drainage is eligible for a repair contract to replace worn out materials, which restarts the 10-year operation and maintenance agreement requiring periodic spot checks to verify practice functionality and compliance with Soil and Water Conservation Commission policies. Contracts which are re-enrolled in the Agriculture Cost Share Program or structures which are field verified as still functioning were re-added to the cumulative acre total. Several Districts have indicated an interest and willingness in re-engaging some of these past cooperators.

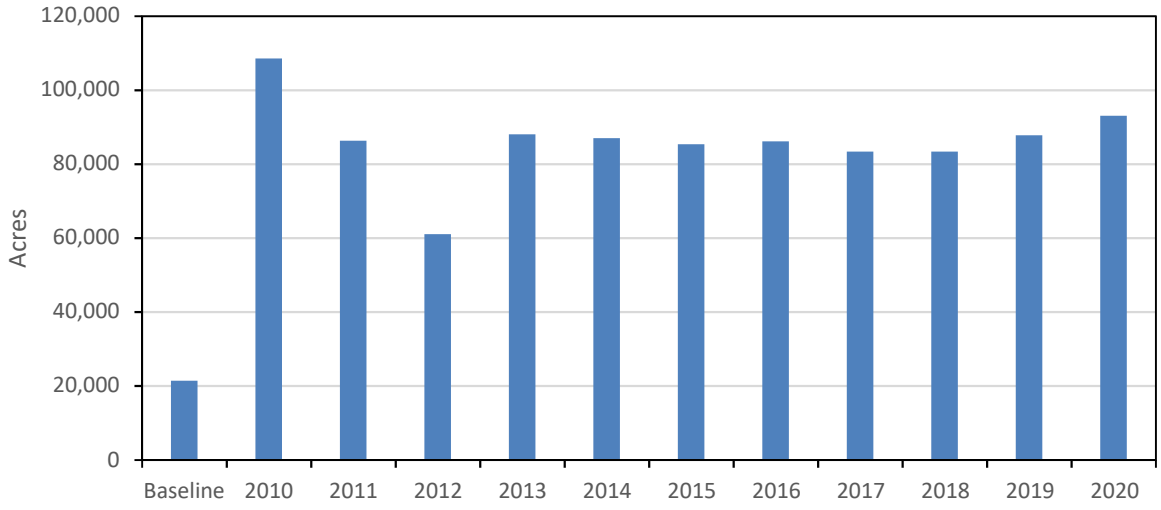
The removal of inactive contract BMP acres from annual reports has resulted in a smaller nitrogen loss reduction mainly in coastal counties, particularly Beaufort, Edgecombe, Hyde, Pitt, and Washington counties. It is important to note that this abrupt reduction, first seen in the CY2019 report, is primarily based on a methodological change and not on farmer behavior or BMP functionality. The BOC still expects that most acres where controlled drainage practices were implemented are still actively being managed, but in order to ensure ongoing engagement with landowners the BOC has decided to adjust reporting guidelines. Due to ever-present landowner demand, increased prioritization and implementation of water control structure contracts is still evident in many of these counties, and the BOC expects this trend to continue as precipitation patterns change. Figure 2 shows the cumulative total of all acres affected by water control structures since baseline, as well as the adjusted total showing only active cost share contracts in CY2020.

Figure 2: Acres Affected by Water Control Structures for Baseline (1991) and Installed from CY2009 to CY2020, Tar-Pamlico River Basin



The Division of Soil and Water Conservation, Soil and Water Conservation Districts and Natural Resources Conservation Service staff continue to make refinements to the NLEW accounting process as opportunities arise. LAC members estimate annual nutrient scavenger crop acres based on crop rotations, producer cropping history, state and federal incentive programs, weather patterns, and seed prices. Buffer and water control structure BMP data is collected from state and federal cost share program active contracts, and in some cases (especially nutrient scavenger crops) BMPs that were installed without cost share funding. While there is some opportunity for variability in the data reported, LACs are including data that is the best information currently available. As additional sound data sources become available, the LACs will review these sources and update their methodology for reporting if warranted. Nutrient scavenger crop acres are documented on an annual basis because their implementation depends on crop rotations. Figure 3 shows the annual total of nutrient scavenger crop acres in the basin from baseline and CY2010 through CY2020.

Figure 3: Nutrient Scavenger Crop Acres Planted Annually on Agricultural Lands for Baseline (1991) and Installed from CY2010 through CY2020, Tar-Pamlico River Basin

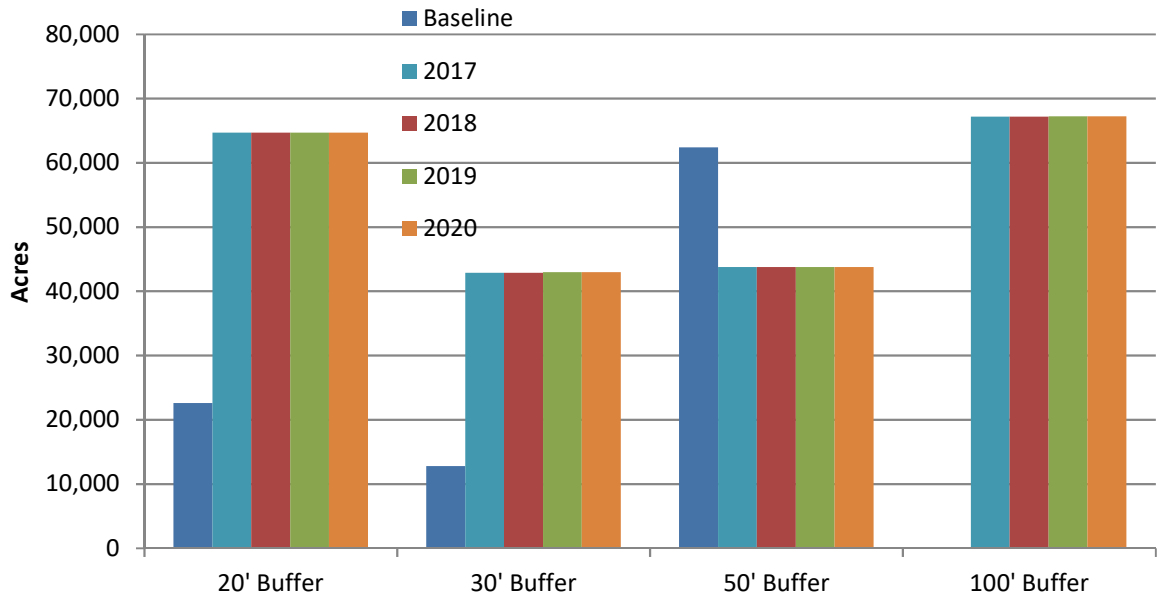


Overall, the total acres of implementation of BMPs have increased since the baseline as illustrated in Figures 2, 3, and 4. When cumulative acres of BMPs installed through federal, state and local cost share programs are compared to the total cropland (585,994 acres), over half of all reported cropland receives some kind of BMP treatment. This does not include farmer installed BMPs that are not funded by cost share programs except in some cases where District staff are made aware of work that has been completed. Additionally, the treatment estimate is likely greater because it does not account for the entire drainage area treated by buffers in the piedmont, which is generally 5 to 10 times higher than the actual acres of the buffer shown in Figure 4.[4]

From 2001 through 2006, the NLEW program captured buffers 50' and wider as one category. After the 2007 update, categories for 70' and 100' buffers were added. In CY2006 the buffers larger than 50' were redistributed into these new categories. In CY2011, 50' and 70' buffers were combined into a single category for everything larger than 50' but less than 100'.

[4] Bruton, Jeffrey Griffin. 2004. Headwater Catchments: Estimating Surface Drainage Extent Across North Carolina and Correlations Between Landuse, Near Stream, and Water Quality Indicators in the Piedmont Physiographic Region. Ph.D. Dissertation. Department of Forestry and Environmental Resources, North Carolina State University, Raleigh, NC 27606.**http://www.lib.ncsu.edu/theses/available/etd-03282004-174056/**

*Figure 4: Buffer Acres Present on Agricultural Lands for Baseline (1991) and Installed from CY2017 through CY2020, Tar-Pamlico River Basin**



**The acres of buffers listed represent actual acres. Acres affected by the buffer could be 5 to 10 times larger in the Piedmont than the acreage shown above.*[4]

Additional Nutrient BMPs

At the field level, multiple BMPs contribute to nutrient reduction and subsequent water quality improvement; however not all nutrient-reducing BMPs are tracked by NLEW. These include livestock-related nitrogen and phosphorus reducing BMPs, BMPs that reduce soil and phosphorus loss, and BMPs that do not have enough scientific research to support estimating a nitrogen benefit. The BOC believes it is worthwhile to recognize these practices. Table 4 identifies BMPs not accounted for in NLEW and tracks their implementation in the basin since baseline. Table 5 indicates the total number of BMPs not accounted for in NLEW, which are under active contract (implemented from CY2010 to CY2020).

Since baseline, increased implementation numbers are evident across all BMP types. In CY2020, most of the additional nutrient BMPs (which are listed in Tables 4 and 5) experienced implementation increases compared to BMP acreage in CY2019. Some of these BMPs will yield reductions in nitrogen loss that are not reflected in the NLEW accounting in this report but will benefit the estuary.

*Table 4: Nutrient-Reducing Best Management Practices Not Accounted for in NLEW, 2001-2020, Tar-Pamlico River Basin**

BMP	Units	2001 - 2018	2019	2020
Diversion	Feet	441,962	441,962	441,962
Fencing (USDA Programs)	Feet	262,519	263,205	267,540
Field Border	Acres	1,308	1,309	1,309
Grassed Waterway	Acres	2,634	2,635	2,646
Livestock Exclusion	Feet	239,868	241,960	247,748
Sod Based Rotation	Acres	101,150	101,940	106,851
Tillage Management	Acres	69,504	69,504	72,851
Terraces	Feet	371,936	371,936	371,936

** Cumulative data quantified by adding BMPs implemented with State and Federal cost share program funding each Crop Year to cumulative totals reported the previous Crop Year. Additional BMPs may exist in the basin as practices may be installed by farmers without cost share assistance.*

*Table 5: Nutrient-Reducing Best Management Practices installed from CY2010 to CY2020, Not Accounted for in NLEW**

BMP	Units	BMPs Installed (CY2010 – CY2020)
Diversion	Feet	51,916
Fencing (USDA Programs)	Feet	61,350
Field Border	Acres	375
Grassed Waterway	Acres	1,531
Livestock Exclusion	Feet	26,660
Sod Based Rotation	Acres	80,347
Tillage Management	Acres	36,905
Terraces	Feet	3,022

** Values represent only active contracts in State and Federal cost share programs. Additional BMPs may exist in the basin as producers may maintain practices after the life of a cost share contract. Practices installed by producers without cost share assistance are not included in BMP totals.*

Fertilization Management

Better nutrient management in the Tar-Pamlico River Basin has resulted in a reduction of fertilizer application rates from baseline levels. Figure 5 indicates that nitrogen rates for the major crops in the basin have reduced from the baseline period.

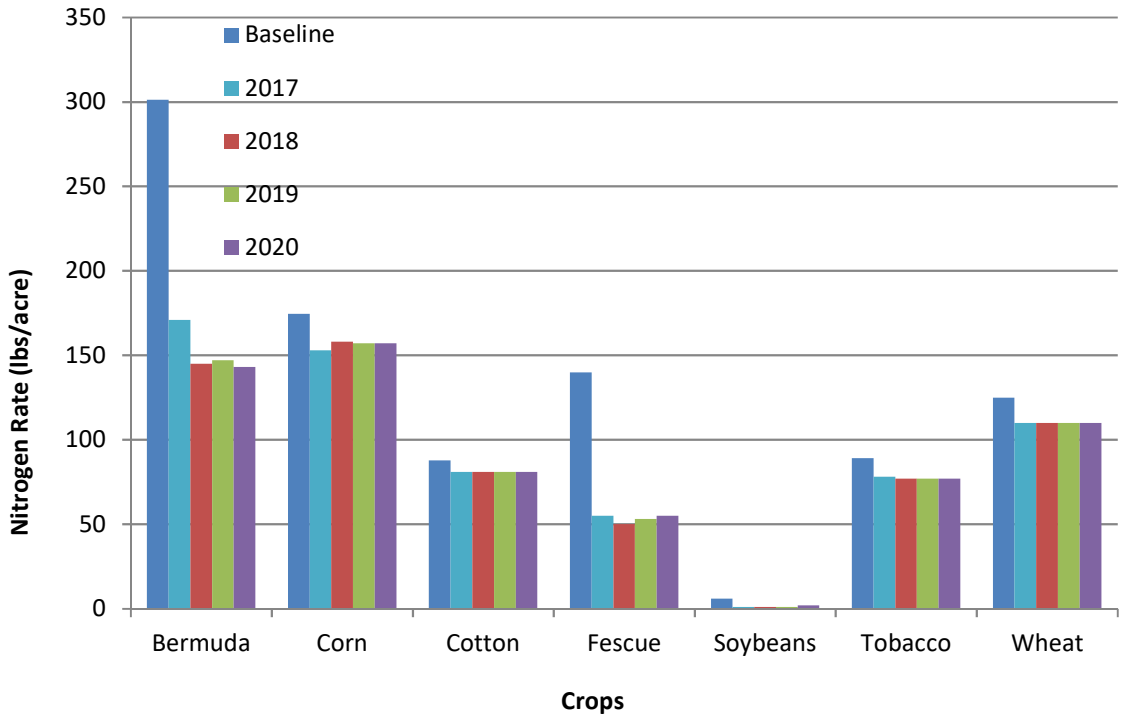
Between CY2019 and CY2020 nitrogen rates remained relatively stable (less than 5 lbs/acre fluctuations) for bermuda, corn, cotton, fescue, soybeans, tobacco, and wheat. Most pastures are under-fertilized throughout the Tar-Pamlico basin. Pasture and hayland are typically not supplemented with inorganic fertilizers. Figure 5 shows these application rates.

Factors Identified by LACs Contributing to Reduced Nitrogen Rates since the Baseline Year

- Economic decisions and fluctuating farm incomes.
- Increased education and outreach on nutrient management.
- Mandatory waste management plans.
- The federal government tobacco quota buy-out reducing tobacco acreage.
- Neuse and Tar-Pamlico Nutrient Strategies.

Over time there has been an economic incentive for producers to improve nitrogen management. Fertilizer rates and standard application practices are revisited annually by LACs using data from farmers, commercial applicators and state and federal agencies' professional estimates.

Figure 5: Average Annual Nitrogen Fertilization Rate (lb/ac) for the Major Agricultural Crops for the Baseline (1991) and 2017-2020, Tar-Pamlico River Basin

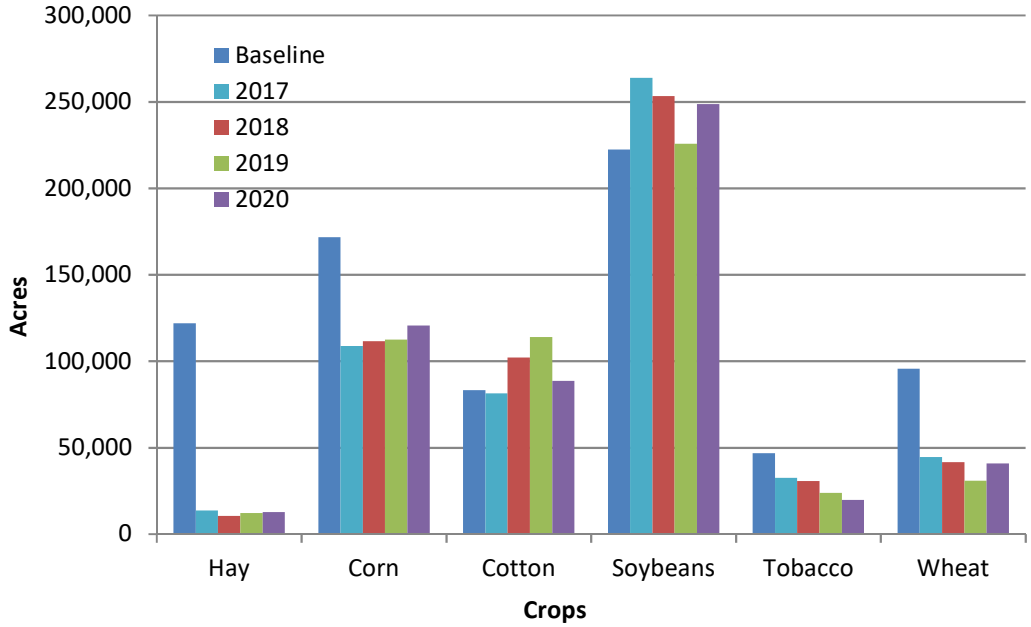


Cropping Shifts

The LACs calculated the cropland acreage by utilizing crop data reported by farmers to the USDA-Farm Service Agency. Each crop requires different amounts of nitrogen and utilizes applied nitrogen with different efficiency rates. Changes in the mix of crops grown annually can have a significant impact on the cumulative yearly nitrogen loss reduction. The BOC anticipates that the basin will see additional crop shifts in the upcoming year based on changing commodity prices and weather patterns.

Figure 6 shows crop acres and shifts for the last four years compared to the baseline. Some crops have remained relatively stable, while others show more volatility. From CY2019 to CY2020, corn acreage increased by 8,134 acres. Corn typically requires higher nitrogen application rates than other crops and generally follows the double-crop planting of wheat and soybeans to minimize disease pressures. Cotton prices were low throughout CY2020, and as a result, cotton acreage decreased by over 25,000 acres from CY2019 acreages. Soybean acreage increased by over 23,000 acres, and wheat acres increased by over 10,000 acres. Tobacco acreage decreased by almost 4,000 acres from CY2019 to CY2020, and Hay (Bermuda and Fescue) acreage saw a slight increase of 526 acres. Cropping shift changes contributed to the overall collective nitrogen loss increase seen between CY2019 and CY2020 in Table 2 (approximately 530,000 additional lbs of N lost). A host of factors from individual choice to global markets determine crop selection.

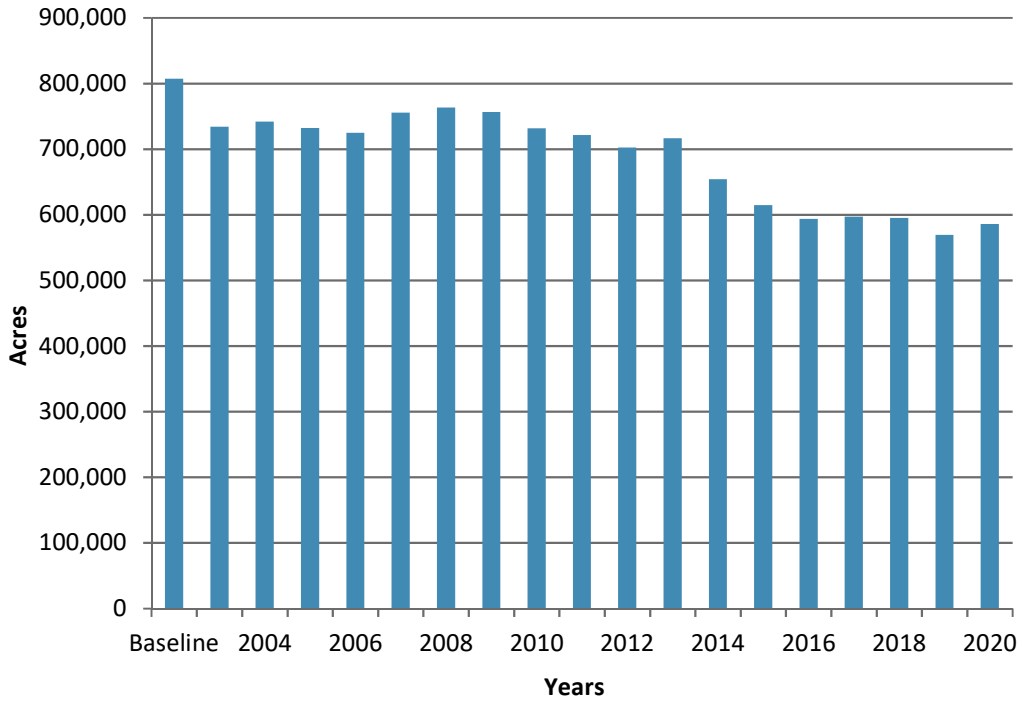
Figure 6: Acreage of Major Crops for the Baseline (1991) and 2017-2020, Tar-Pamlico River Basin



Land Use Change to Development, Idle Land and Cropland Conversion

The number of cropland acres fluctuates every year in the Tar-Pamlico River Basin. Each year, some cropland is permanently lost to development. Some cropland is also converted to grass or trees each year and is likely to be ultimately lost from agricultural production. Idle land is agricultural land that is currently out of production but could be brought back into production at any time. Currently, it is estimated that almost 13,000 acres have been permanently lost to development in the basin and 47,516 acres have been converted to grass or trees since the 1991 baseline. For CY2020 it is estimated that there are 66,319 idle acres. There is a total of 585,994 NLEW-accountable acres of cropland (see Figure 7). In addition to these changes, LACs have noted that over 2,500 cropland acres have been converted to leased and constructed solar facilities in the last decade. All of the above estimates come from the LAC members' best professional judgment, USDA-FSA records and county planning department data. The total crop acres are obtained from USDA-FSA annual reports. Cropland acres have continued to decrease from the baseline period, although CY2020 experienced an increase of 16,933 NLEW-accountable crop acres from CY2019 reported values (see Figure 7).

*Figure 7. NLEW-Accounted Cropland Acres in the Tar-Pamlico River Basin, Baseline (1991) and 2003 – 2020**



**Some of the acres represented here are acres counted twice due to double-cropping on the same field. Some acreage reduction represents double-cropped wheat-soybeans converted to a full-season soybean crop.*

Phosphorus

Phosphorus Indicators for CY2020: The qualitative indicators included in Table 6 show the relative changes in land use and management parameters and their relative effect on phosphorus loss risk in the basin. This approach was recommended by the Phosphorus Technical Advisory Committee (PTAC) in 2005 due to the difficulty of developing an aggregate phosphorus tool to parallel the nitrogen NLEW tool and was approved by the EMC. Table 6 builds upon the data provided in the 2005 PTAC report, which included all available data at the time ending with data from 2003. This report adds phosphorus indicator data for CY2017 through CY2020. With the exception of animal waste P and soil test P, all other parameters indicate less risk of phosphorus loss than in the baseline year. Water Control Structures are reported as both cumulative and active contract acres, which makes determining a positive or negative risk change problematic. The BOC notes consistent and ongoing implementation of water control structure cost share contracts in coastal counties, and Soil and Water Conservation Districts will continue to do field verifications of older structures where possible.

Phosphorous Technical Assistance Committee (PTAC)

The PTAC's overall purpose was to establish a phosphorus accounting method for agriculture in the basin. It determined that a defensible, aggregated, county-scale accounting method for estimating phosphorus losses from agricultural lands is not currently feasible due to "the complexity of phosphorus behavior and transport within a watershed, the lack of suitable data required to adequately quantify the various mechanisms of phosphorus loss and retention within watersheds of the basin, and the problem with not being able to capture agricultural conditions as they existed in 1991." The PTAC instead developed recommendations for qualitatively tracking relative changes in practices in land use and management related to agricultural activity that either increase or decrease the risk of phosphorus loss from agricultural lands in the basin on an annual basis.

Contributing to the reduced risk of phosphorus loss is the increase of nutrient reducing BMPs in the basin. It should also be noted that the soil test phosphorus median number reported for the basin fluctuates each year due to the nature of how the data is collected and compiled. The soil test phosphorus median numbers shown in Table 6 are generated by using North Carolina Department of Agriculture and Consumer Services (NCDA&CS) soil test laboratory results from voluntary soil testing and the data is reported by the NCDA&CS. The number of samples collected each year varies. The data only includes samples submitted for cropland. It does not include soil tests that were submitted to private laboratories. The soil test results from the NCDA&CS database represent data from entire counties in the basin, and have not been adjusted to include only those samples collected in the river basin area.

Table 6: Relative Changes in Land Use and Management Parameters and their Relative Effect on Phosphorus Loss Risk in the Tar-Pamlico

Parameter	Units	Source	1991 Baseline	CY2017	CY2018	CY2019	CY2020	1991 – 2020 Change	CY2020 P Loss Risk +/-
Agricultural land (annual)	Acres	FSA	807,026	597,066	595,165**	569,061	585,994	-27%	-
Cropland conversion (to grass & trees) (cumulative)	Acres	USDA-NRCS & NCACSP	660	47,269	47,328	47,462	47,516	7099%	-
CRP / WRP (cumulative)	Acres	USDA-NRCS	19,241	41,833	41,833	41,833	41,833	117%	-
Conservation Tillage * (cumulative)	Acres	USDA-NRCS & NCACSP	41,415	67,899**	69,504**	69,504	72,851	76%	-
Vegetated buffers (cumulative)	Acres	USDA-NRCS & NCACSP	50,836	218,440	218,440	218,461	218,584	332%	-
Water control structures (cumulative)	Acres Affected	USDA-NRCS & NCACSP	52,984	92,208	92,668	(93,576)/ 12,228**	(94,819)/ 11,975	-77%***	+/-***
Scavenger crop (cumulative)	Acres	LAC	13,272	83,312	83,382	87,787	93,085	601%	-
Animal waste P (annual)	lbs of P/ yr	NC Ag Statistics	13,597,734	14,855,289	14,654,365	15,054,325**	16,603,266	22%	+
Soil test P median (annual)	P Index	NCDA&CS	83	85	93	93	91	10%	+

** Conservation tillage is likely being practiced on additional acres, but this number only reflects cumulative cost share contract acres since baseline, not acres where farmers have implemented conservation tillage without cost share assistance. According to the 2017 Ag Census, conservation tillage (including no-till) was practiced on 451,018 crop acres in the Tar-Pamlico River Basin.*[5]

***These numbers were adjusted since reported to correct spreadsheet errors*

****Cumulative water control structure acres are reported along with acres currently under active contract. Due to the fact that an unknown portion of inactive acres are likely still affected by water control structures, the BOC believes the P loss risk in this category is difficult to describe as clearly positive or negative.*

Based on the these findings, the BOC recommends that no additional management actions be required of agricultural operations in the basin at this time to comply with the "no net increase above the 1991 levels" phosphorus goal of the agriculture rule. The BOC will continue to track and report the identified set of qualitative phosphorus indicators to DWR annually, and to bring any concerns raised by the results of this effort to DWR's attention as they arise, along with recommendations for any appropriate action. The BOC expects that BMP implementation will continue to increase throughout the basin in future years, and notes that BMPs installed for nitrogen, pathogen and sediment control often provide significant phosphorus benefits as well.

[5] USDA NASS, 2017 Census of Agriculture, Census by Watershed (HUC 030201). Available at: www.agcensus.usda.gov/ Publications/2017/Online_Resources/Watersheds/sag03.pdf

Looking Forward

The Tar-Pamlico BOC will continue to report on rule implementation, relying heavily on Soil and Water Conservation District staff to compile crop reports. The BOC continues to encourage counties to implement additional BMPs to further reduce nutrient losses.

Because cropping shifts are susceptible to various pressures, the BOC is working with LACs in all counties to continue BMP implementation that provides lasting reduction in nitrogen loss in the basin.

Basin Oversight Committee recognizes the dynamic nature of agricultural business.

- Changes in the world economies, energy or trade policies.
- Changes in government programs (i.e., commodity support or environmental regulations)
- Weather and climate (i.e., long periods of drought or rain)
- Scientific advances in agronomics (i.e., production of new types of crops or improvements in crop sustainability)
- Plant disease or pest problems (i.e., viruses or foreign pests)
- Urban encroachment (i.e., crop selection shifts as fields become smaller)
- Age of farmer (i.e., as retirement approaches farmers may move from row crops to cattle)

Funding

Ongoing agriculture rule reporting has incorporated data processing efficiencies and improvements in recent years. NLEW upgrades have allowed LAC members to more actively participate in the compilation of data and analysis of nitrogen loss trends, and the Division of Soil and Water Conservation's contracting system has helped optimize BMP documentation efforts.

Soil and Water Conservation District staff have been informed about the updated methodology for reporting active water control structure contracts that first went into effect for CY2019 annual progress reporting. All districts have expressed a willingness to reach out to producers who signed up for older contracts and who may be willing to re-contract for upgrades and repairs. LAC members will keep track of these developments in future years, and as producers are re-engaged with the contracting process their affected acres will be added back to the county's reporting total.

The BOC has noted and is monitoring a statewide increase in poultry production. According to Agricultural Statistics data, there is an approximately 3% increase in broiler production and a roughly 1% decrease in layer production in the counties of the Tar-Pamlico Basin since 1993/1994. While there are notable production increases in other parts of the state, there does not appear to be a significant upward trend of production in the Tar-Pamlico Basin. The BOC plans to monitor these changes in the future. The BOC will also monitor the increase in soil test phosphorus since baseline.

In CY2020 Soil and Water Conservation Districts spent almost $354,000 through the Agriculture Cost Share Program for conservation practices in the Tar-Pamlico River Basin, and the Natural Resources Conservation Service spent over $836,000 through the Environmental Quality Incentives Program for conservation practices in the counties of the Tar-Pamlico River Basin.

These programs have all helped fund erosion and nutrient reducing BMPs in the Tar-Pamlico basin.

The EPA 319(h) grant program, which is administered by the Department of Environmental Quality, has approximately $1 million in competitive grant funds available statewide for implementation of approved nonpoint source management programs. Grant funds from the 319(h) program can be used to supplement technical assistance, match cost share funding, and support BMP implementation. The Division of Soil and Water Conservation, funded through an EPA 319(h) grant, expends approximately $50,000 on agricultural reporting staff support annually.

Over 150 farmers, local staff, and agency personnel with other responsibilities serve on the Neuse and Tar-Pamlico LACs in a voluntary capacity. Basin Oversight Committee members meet at least once per year to review and approve this annual progress report, which includes time spent outside of that annual meeting to review draft documents and approve methodology changes. Participation by so many members of the local agricultural community demonstrates a commitment toward achieving the nutrient strategy's long-term goals.

Funding is an integral part in the success of reaching and maintaining the goal through technical assistance and BMP implementation as well as for data collection and reporting. In the early years of Tar-Pamlico Agriculture Rule reporting, grant funding supported technicians and basin coordinators at Soil and Water Conservation Districts to assist with reporting requirements. At the present time, there is no funding for full-time Tar-Pamlico basin coordinators or technicians. Consequently, in addition to other duties, the NCDA&CS Division of Soil and Water Conservation Nonpoint Source Planning Coordinator was assigned the data collection, compilation and reporting duties for the Tar-Pamlico Agriculture Rule and for all other basins and watersheds subject to existing Nutrient Sensitive Waters Strategies and Agriculture Rules.

With less funding available for reporting support at the state level, responsibility for compilation of annual local progress reports falls on LACs and Soil and Water Conservation District staff. Few currently serving LAC members were active during the stakeholder process for the Agriculture Rule, so some institutional knowledge about annual reporting requirements has been lost. As a result, training of new Soil and Water Conservation District staff and LAC members regarding rule requirements and reporting is ongoing.

Funding and staff reductions necessitate a more centralized approach to data collection and verification. This evolving approach may involve developing additional GIS analysis tools and streamlining FSA acreage documentation. LACs will be trained to handle changing methods and workloads to the best of their ability. Because district staff have neither the time nor financial resources to synthesize county level data, centralized collection approaches will come at the expense of local knowledge. Annual agricultural reporting is required by the rules; therefore continued funding for the Division's remaining Nonpoint Source Planning Coordinator position is essential for compliance.

The BOC will review data from relevant studies as they are completed and become available and will consider the results as they relate to nutrient loadings from land-based sources and uses. Previously, funding was available for research on conservation practice effectiveness, realistic yields, and nitrogen use efficiencies. Due to eligibility changes and other funding constraints, it is unlikely that new data will be developed. Prior funding sources for such research, which provided much of the scientific information on which NLEW was based, are no longer available. Should new funding be made available, additional North Carolina-specific research information should be incorporated into future NLEW updates.

Conclusion

Significant progress has been made in agricultural nitrogen loss reduction, and the agricultural community consistently reaches its collective 30% nitrogen reduction goal and no net increase in phosphorus goal. However, the measurable effects of these BMPs on overall in-stream nutrient reduction may take years to develop due to the nature of non-point source pollution. The BOC supports new funding for research and implementation to further improve reductions and enhance agricultural nutrient reporting, including identification of additional sources. Nitrogen reduction values presented in this annual summary of agricultural reductions reflect "edge-of-management unit" calculations that contribute to achieving the overall 30% nitrogen loss reduction goal. Significant quantities of agricultural BMPs have been installed since the adoption and implementation of the nutrient management strategy, and agriculture continues to fulfill its obligations toward achieving the collective goals of a 30% reduction of nitrogen and no net increase of phosphorus delivered to the Pamlico estuary.

ATTACHMENT 12

Wake Soil and Water Conservation District

TEL 919 250 1050
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Agricultural Services Building
4001-D Carya Drive, Raleigh NC 27610
www.WakeGov.com/swcd

October 13, 2021

Soil and Water Conservation Commission
NCDA&CS Division of Soil and Water Conservation
216 West Jones Street
Raleigh, NC 27603

Dear Soil and Water Conservation Commission Members,

With this letter the Wake Soil and Water Conservation District respectfully requests the Commission grant post-approval payment for Talmage Brown's AgWRAP water well repair contract 92-2022-802 in the amount of $1,575.

Mr. Brown initially installed the well following Commission policy. It was certified by District staff following Division guidance and inspected by Wake County Environmental Services. Two months after the well was installed there was a fracture below the casing depth. Mr. Brown immediately contacted District staff and his well installer. He stated the importance of repairing the well as quickly as possible because he was currently irrigating his crops. The well contractor returned the next business day, sealed the fracture, drilled an additional 140 feet and replaced the pump. A repair permit was obtained from Wake County and the well was repaired to Commission standards. While District staff was working with Mr. Brown and documenting the actions, they did not contact Division staff immediately so an emergency repair contract could be initiated before the repair was completed. We request that the payment be approved as this was a procedural mistake by District staff and by no fault of Mr. Brown the cooperator on the contract.

Thank you for considering this request.

Thomas Dean
Chairman, Wake Soil and Water Conservation District