



PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

HEARING OFFICER'S REPORT

for

Application No. WQ0037772

Sanderson Farms St. Pauls Facility

Robeson County

October 27, 2015



State of North Carolina | Environmental Quality
1601 Mail Service Center | Raleigh, North Carolina 27699-1601
919-707-8600

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TABLE OF CONTENTS

	Page
I. Permit Application	<u>1</u>
II. Public Hearing Requests	<u>1</u>
III. Public Hearing Approval	<u>1</u>
IV. Hearing Officer Selection	<u>1</u>
V. Public Notification	<u>2</u>
VI. Public Hearing	<u>2</u>
VII. Public Comment Period	<u>3</u>
VIII. Summary of Public Concerns	<u>3</u>
IX. Division Response to Public Concerns	<u>4</u>
X. Draft Permit Recommendations	<u>12</u>
Appendix A – Public Hearing Request	<u>13</u>
Appendix B – Public Hearing Approval	<u>24</u>
Appendix C – Draft Permit No. WQ0037772	<u>26</u>
Appendix D – Hearing Officer Selection Memo	<u>46</u>
Appendix E – Public Notification	<u>48</u>
Appendix F – Public Hearing Fact Sheet	<u>50</u>
Appendix G – Public Hearing Transcript	<u>55</u>
Appendix H – Public Hearing Speeches	<u>67</u>
Appendix I – Emailed Public Comments	<u>73</u>
Appendix J – Archaeological Survey	<u>595</u>
Appendix K – Notice of Violation Documents	<u>612</u>

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I. Permit Application:

On May 6, 2015, the Division of Water Resources' Non-Discharge Permitting Unit received a permit application for a wastewater treatment and irrigation system (Application No. WQ0037772) for Sanderson Farms' proposed St. Pauls facility located in Robeson County. The permit application request proposes to construct and operate:

- a 1.4 million gallon per day (MGD) wastewater treatment plant consisting of a clay lined, synthetically covered anaerobic pond; an anoxic basin; an aeration basin; a de-aeration basin; a clarifier; a clay lined bio-solids pond; an ultraviolet (UV) disinfection system; and a wet weather storage pond; as well as an
- irrigation system consisting of approximately 350 acres of spray irrigation fields capable of accepting over 1.41 MGD of treated wastewater effluent.

The permit application request has been reviewed by both Division of Water Resources' Central and Fayetteville Regional Staff, with additional information requested on July 7, 2015 and August 10, 2015 with responses received July 23, 2015 and August 21, 2015, respectively. A draft permit was approved by the Division of Water Resources and Sanderson Farms, Inc. (Processing Division) on August 26, 2015.

II. Public Hearing Requests:

From June 10, 2015 to July 10, 2015, the Division received seven requests for a public hearing on the proposed facility, with the requests coming from six individuals at four separate residences near the proposed site, and from the Southern Environmental Law Center. The seven requests raised concerns about the environmental impact of the proposed facility, and specifically cited the potential for contamination to surface water and groundwater, as well as groundwater withdrawals.

Copies of the public hearing requests may be found in [Appendix A](#).

III. Public Hearing Approval:

Division review of the submitted public hearing requests determined that there were legitimate public concerns regarding water quality and public health due to the proposed Sanderson Farms facility in St. Pauls. Therefore, in accordance with [15A NCAC 02T .0108\(b\)\(4\)](#), the Director determined that a public meeting was necessary to obtain additional information from the public in order to complete the Division review of the subject application.

A copy of this letter may be found in [Appendix B](#).

IV. Hearing Officer Selection:

Upon approval of the public hearing, the Division began the process of selecting a hearing officer to conduct the public meeting and provide the Division's response to raised public concerns about water quality and public health impacts associated with the proposed facility modifications. On July 14, 2015, a memorandum was sent from Division Director S. Jay Zimmerman announcing his selection of a public hearing officer. A copy of this memorandum may be found in [Appendix D](#). Robert Tankard, Assistant Supervisor in the Washington Regional Office's Water Quality Regional Operations Section was selected as the hearing officer.

V. Public Notification:

In accordance with [General Statute 143-215.1\(c\)\(3\)](#), public notice regarding the Division’s intent to hold a hearing for the subject facility was published in the Fayetteville Observer on September 2, 2015. A copy of the Fayetteville Observer’s Affidavit of Publication may be found in [Appendix E](#).

In addition to notifying the public via the newspaper, the Division also included public notification on the Non-Discharge Permitting Unit [website](#). This webpage provided the public with detailed information about the proposed facility, hearing date and location, as well as provided the public with a copy of the draft permit ([Appendix C](#)) and an information fact sheet ([Appendix F](#)).

VI. Public Hearing:

The public hearing was held on September 17, 2015 at the R. E. Hooks Community Building located at [176 N. Third Street, St. Pauls, NC 28384](#). Registration began at 6:30 p.m., with the hearing convening shortly after 7:00 p.m.

The hearing was attended by 40 members of the public, and there were 9 Division of Water Resources representatives present.

Following the Hearing Officer’s introductory remarks, Nathaniel Thornburg of the Division’s Non-Discharge Permitting Unit provided an overview of the proposed facility, as well as a brief synopsis of the draft permit.

Next, 14 registered speakers provided comments regarding water quality and water resource concerns about the subject facility, with two of the speakers presenting again at the end of the hearing:

Baldwin, Larry	Burdette, Kemp	Davis, Richard	Ellis, Christine
Hendrick, Will	Hildebrand, Blakely	Jernigan, Gray	Legerton, Mac (1st)
Legerton, Mac (2nd)	Osborne, Colin	Quick, Cynthia	Shell, Bill
Taylor, Lora Kay Oxendine (1st)	Taylor, Lora Kay Oxendine (2nd)	Westmoreland, Roger	Wood, Nick

Transcripts of the 16 public presentations may be found in [Appendix G](#). For an audio recording of the public hearing in its entirety, please contact Nathaniel Thornburg at (919) 807-6453 or nathaniel.thornburg@ncdenr.gov.

The hearing was adjourned at 8:12 p.m.

VII. Public Comment Period:

The 30-day public comment period was opened on Wednesday, September 2, 2015, and ended at the close of business on Friday, October 2, 2015. During the public comment period, the Division received 9 comments via e-mail.

Below is a list of all individuals who provided comments:

Ellis, Christine	Emanuel, Ryan	Evans, Gloria
Gallagher, Bedford	Hendrick, Will	Legerton, Mac
Phthisic, Haywood	Rea, Marvin	Westmoreland, Roger

Please note that copies of all e-mail comments may be found in [Appendix I](#).

VIII. Summary of Public Concerns:

After reviewing the 14 public hearing speakers’ comments and the 9 received written comments, the Division determined that there are six major areas of concern that can be addressed by the Division. These major concerns being:

1. The lack of an Environmental Impact Statement (EIS) for the subject facility.
2. The characteristics/constituents of, and degree of treatment of, the wastewater stream.
3. The location and characteristics of the site chosen for land application of wastewater effluent.
4. The amount of wastewater to be generated for land application at the site.
5. The water quality monitoring that will be required.
6. The past practices of the company including their recent unpermitted construction activities.

Each of these major areas of concern, as well as other miscellaneous comments are addressed in detail in Section IX.

In addition to these major concerns, the Division also identified three other areas that the Division of Water Resources does not have the authority to address. The first being potential air pollution impacts from the proposed facility; the second being impacts on traffic; and the third being whether or not Sanderson Farms use of potable water could impact private well water supply.

All comments pertaining possible air pollution associated with the proposed facility should be directed to the Division of Air Quality at (919) 707-8400 (<http://daq.state.nc.us/>).

Regarding potential impacts from increased traffic, the Division suggests that concerned citizens contact the North Carolina Department of Transportation at 1-877-368-4968 (<http://www.ncdot.gov/doh/>) to determine if the subject facility meets all state requirements.

Lastly, it is the Division’s understanding that Sanderson Farms will be receiving their process water from Robeson County. Therefore, comments regarding the quantity of potable water used by Sanderson Farms in their processing plant should be directed to the Robeson County Water Department at (910) 844-5611 (<http://co.robeson.nc.us/departments-p-z/water-department/>).

IX. Division Response to Public Concerns:

This section includes a detailed response to public concerns about water quality issues that were identified during the public hearing and the public comment period.

1. *Why has an Environmental Impact Statement (EIS) not been conducted for this wastewater treatment and irrigation system?*

During the September 17th hearing and included in most of the submitted comments was a request from the public for Sanderson Farms to conduct an Environmental Impact Statement (EIS) for the proposed facility. Since the entirety of the proposed construction is to occur on private land owned by Sanderson Farms, and the funding for this construction will be done with private monies, Sanderson Farms is not required to comply with the [North Carolina Environmental Policy Act \(NCEPA\)](#). Therefore, an Environmental Impact Statement (EIS), or Environmental Assessment (EA) is not required.

2. *Why has Sanderson Farms selected a spray irrigation site that is already designated by U.S.D.A. as "Very Limited" for use as waste spray fields?*

The Non-Discharge Permitting Unit must conduct permit reviews for permit applications involving those sites submitted by the Applicant. The proposed spray irrigation site is only one of the many, though very important, considerations involved in the review. There are several major studies and reports required relative to the site. Per 15A NCAC 02T .0504(b), a soil evaluation and subsequent Soils Report of the spray irrigation site must be performed by a North Carolina licensed Soil Scientist and submitted as part of the permit application package.

The rule establishes numerous requirements for information that must be included in the Soils Report including soil types and characteristics (e.g., thickness of horizons, restrictive horizons, seasonal high water table, etc.), a field-delineated soil map, a representative soils analysis (i.e., Standard Soil Fertility Analysis) for fourteen required parameters (e.g., acidity, cation exchange capacity, phosphorus, pH, etc.), and recommendations concerning loading rates of wastewater constituents to be applied and hydraulic loading rates based on in-situ measurement of saturated hydraulic conductivity in the most restrictive soil horizon.

Other information required per 15A NCAC 02T .0504 includes Engineering Design Documents prepared by a licensed North Carolina Professional Engineer, Site Plans and information prepared by a North Carolina licensed Professional Land Surveyor, a Hydrogeologic Description prepared by a North Carolina licensed Soil Scientist, Geologist or Professional Engineer, a complete chemical analysis of the typical wastewater to be discharged, site setbacks determination, an Operation and Maintenance Plan, A Residuals Management Plan, et al. This total combination of detailed site studies provides far more site specific information than do maps such as an area USDA map which is intended to be used to show relative patterns associated with factors affecting potential vulnerability to groundwater contamination on a large scale. Such maps are not intended to be used for assessing the suitability of specific individual sites for wastewater application.

The permit application package submitted by Sanderson Farms was prepared by outside consultants consisting of three North Carolina licensed Professional Engineers, two North Carolina licensed Soil Scientists, two North Carolina licensed Geologists, and an industry certified Agronomist. The package contains all required information, professional recommendations, and professional and owner certifications which address questions regarding spray site location, wet weather concerns, ability to maintain a cover crop, setback requirements, buffer areas requirements and others, and have concluded the proposed spray irrigation site is capable of being operated with the rules established for wastewater irrigation systems and capable of properly assimilating the quality and

IX. Division Response to Public Concerns (continued):

quantity of wastewater flow anticipated. The detailed Sanderson Farms permit application package is available for public review.

3. *Will runoff from the spray irrigation area reach wetlands and surface water bodies as a result of irrigation activities during wet weather periods?*

The intent of a non-discharge wastewater irrigation system is to allow for the application of wastewater effluent onto the land surface without any discharge to surface waters. The proposed draft permit includes several conditions designed to protect nearby surface waters. These conditions include:

- Condition II.1. – “The subject non-discharge facilities shall be effectively maintained and operated at all times so there is no discharge to surface waters, nor any contravention of groundwater or surface water standards. In the event the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the irrigation areas to adequately assimilate the effluent, the Permittee shall take immediate corrective actions including Division required actions, such as the construction of additional or replacement wastewater treatment or irrigation facilities.”
- Condition II.2. – “This permit shall not relieve the Permittee of their responsibility for damages to groundwater or surface water resulting from the operation of this facility.”
- Condition II.4. – “Effluent limitations shall not exceed those specified in Attachment A.”
- Condition II.5. – “Application rates, whether hydraulic, nutrient or other pollutant, shall not exceed those specified in Attachment B.”
- Condition II.6. – “The irrigation system shall be connected to a rain or moisture sensor, which shall indicate when effluent application is not appropriate in accordance with Conditions III.4. and III.5. of this permit.”
- Condition III.1. – “The facilities shall be properly maintained and operated at all times. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility. The Permittee shall maintain an Operation and Maintenance Plan pursuant to 15A NCAC 02T .0507, which at a minimum shall include operational functions, maintenance schedules, safety measures and a spill response plan.”
- Condition III.3. – “A suitable year round vegetative cover shall be maintained at all times, such that crop health is optimized, allows for even distribution of effluent and allows inspection of the irrigation system.”
- Condition III.4. – “Adequate measures shall be taken to prevent effluent ponding in or runoff from the irrigation sites listed in Attachment B.”
- Condition III.5. – “Irrigation shall not be performed during inclement weather or when the ground is in a condition that will cause ponding or runoff.”
- Condition III.6. – “All irrigation equipment shall be tested and calibrated at least once per permit cycle. Calibration records shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request.”

IX. Division Response to Public Concerns (continued):

- Condition III.8. – “No automobiles or machinery shall be allowed on the irrigation sites except during equipment installation or while maintenance is being performed.”
- Condition IV.13. – “An annual representative soils analysis (i.e., Standard Soil Fertility Analysis) shall be conducted on each irrigation site listed in Attachment B. These results shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, the Standard Soil Fertility Analysis shall include the following parameters:

Acidity	Exchangeable Sodium Percentage	Phosphorus
Base Saturation (by calculation)	Magnesium	Potassium
Calcium	Manganese	Sodium
Cation Exchange Capacity	Percent Humic Matter	Zinc
Copper	pH	

The Division will require that Sanderson Farms comply with all of the aforementioned permit conditions or be subject to Notice of Violations (NOVs), civil penalties, and possible permit revocation. That being said, the Division realizes that manmade systems are subject to failure either through poor operation and maintenance, facility age, or catastrophic acts of nature. Accordingly, the Division intends on requiring upstream and downstream surface water monitoring to determine whether or not the land application of wastewater effluent at this facility is degrading on-property surface waters. This issue is fully addressed in Item #2 in Section X below.

4. *Will both shallow well and confined aquifer groundwater levels be continuously monitored at the spray irrigation site using water level recorders?*

No. However, the proposed facility will have a monitoring well network that will require water level measurements inside of each well. These measurements will be taken three times per year.

5. *Can the spray irrigation area be located close to other private properties?*

Provided the proposed facility meets the Application Submittal requirements in 15A NCAC 02T .0504 and the Design Criteria requirements in 15A NCAC 02T .0505, the spray irrigation area can be located 150 feet from any property line, and 400 feet from any habitable residence or place of public assembly under separate ownership or not to be maintained as part of the project site per 15A NCAC 02T .0506(a).

IX. Division Response to Public Concerns (continued):

6. *What aren’t the buffer areas clearly specified and the management of them clearly stated?*

Division review of the provided Engineering Plans, along with field verification conducted during site visits have confirmed that the wastewater treatment, storage and irrigation systems are all in compliance with the setbacks required under 15A NCAC 02T .0506. Specifically, these setbacks include:

The facilities permitted herein shall be constructed according to the following setbacks:

a. The setbacks for irrigation sites permitted under 15A NCAC 02T .0500 shall be as follows (all distances in feet):

- | | |
|--|-----|
| i. Any habitable residence or place of public assembly under separate ownership: | 400 |
| ii. Any habitable residence or place of public assembly owned by the Permittee: | 200 |
| iii. Any private or public water supply source: | 100 |
| iv. Surface waters: | 100 |
| v. Groundwater lowering ditches: | 100 |
| vi. Surface water diversions: | 25 |
| vii. Any well with exception of monitoring wells: | 100 |
| viii. Any property line: | 150 |
| ix. Top of slope of embankments or cuts of two feet or more in vertical height: | 15 |
| x. Any water line from a disposal system: | 10 |
| xi. Subsurface groundwater lowering drainage systems: | 100 |
| xii. Any swimming pool: | 100 |
| xiii. Public right of way: | 50 |
| xiv. Nitrification field: | 20 |
| xv. Any building foundation or basement: | 15 |

[15A NCAC 02T .0506(a)]

b. The setbacks for storage and treatment units permitted under 15A NCAC 02T .0500 shall be as follows (all distances in feet):

- | | |
|--|-----|
| i. Any habitable residence or place of public assembly under separate ownership: | 100 |
| ii. Any private or public water supply source: | 100 |
| iii. Surface waters: | 50 |
| iv. Any well with exception of monitoring wells: | 100 |
| v. Any property line: | 50 |

[15A NCAC 02T .0506(b)]

IX. Division Response to Public Concerns (continued):

7. *By land application of the Sanderson Farms wastewater, are you relying on the spray site and plants to filter, absorb, and treat the wastewater?*

No, the Division does not rely on the irrigation site and vegetative cover crop to filter, absorb and treat the applied effluent. It should be noted that per 15A NCAC 02T .0505(c), the effluent is being applied at agronomic rates so as not to create a condition where nutrients (i.e., nitrogen and phosphorus) are leaching into groundwater. If nutrients are over-applied or do leach into the groundwater, then the groundwater monitoring well network at the Review Boundary should notice an increase in those parameters. If this does occur, then Sanderson Farms is responsible to remediating any 02T Groundwater Standard violation.

8. *Why is Sanderson Farms not required to obtain an NPDES permit for direct discharge to surface waters with its associated higher levels of required treatment and monitoring as opposed to a non-discharge land application permit?*

The purpose of the federal National Pollutant Discharge Elimination System (NPDES) is to eliminate discharges of treated wastewater to surface waters of the United States. One of the requirements to obtaining an NPDES permit is to conduct an Environmental Alternatives Analysis (EAA), which requires that the entity consider the use of a non-discharge system. Based on Sanderson Farms ability to treat and dispose of the treated effluent on the land surface, a non-discharge permit is appropriate.

9. *Why does the draft permit only require groundwater monitoring three times per year?*

Given the relatively slow movement of groundwater flow as compared with surface waters, triannual monitoring of the proposed groundwater monitoring wells is sufficient to determine if contamination is occurring in the groundwater. Please also note that the proposed monitoring wells are located at the Review Boundary, which in most instances is 125 feet from the irrigation area. If sampled parameters exceed the 02L Groundwater Standards, then Sanderson Farms must take corrective actions to remediate the contamination. In addition, Sanderson Farms would then be required to install monitoring wells at the Compliance Boundary, which in most instances are 250 feet from the irrigation area.

10. *Why are there not more groundwater monitoring wells required for the spray sites?*

The proposed groundwater monitoring plan includes nine groundwater monitoring wells, two of which are upgradient from any effluent application activities, and the remaining seven are downgradient. The draft permit presented at the September 17th hearing mistakenly only listed seven monitoring wells, when in fact nine are proposed. Based on the direction of groundwater flow in the proposed irrigation fields, the proposed groundwater monitoring well network is appropriate.

11. *Why does the permit not require surface water monitoring?*

The draft permit has been amended to require surface water monitoring at seven locations. These locations will sample upstream and downstream sites on Big Marsh Swamp, Gum Branch, Black Branch and the unnamed tributary to Big March Swamp located near the intersection of Emma Jane Rd. and W. Great Marsh Church Rd. Sampling for the noted parameters shall occur on a triannual basis.

IX. Division Response to Public Concerns (continued):

12. Why are there no effluent limits in the draft permit other than flow?

Per 15A NCAC 02T .0505(b), industrial facilities are not required to have mandatory effluent limits. However, Sanderson Farms is still required to monitor for 16 parameters and report those values on a monthly basis. In addition, please note that Attachment B has been modified to include a maximum amount of Plant Available Nitrogen (PAN) and Total Phosphorus that can be applied to each field on an annual basis.

13. Is the spray site capable of handling 1.4 million gallons per day of wastewater flow?

There are several major studies and reports required relative to the site. Per 15A NCAC 02T .0504(b), a soil evaluation and subsequent Soils Report of the spray irrigation site must be performed by a North Carolina licensed Soil Scientist and submitted as part of the permit application package.

The rule establishes numerous requirements for information that must be included in the Soils Report including soil types and characteristics (e.g., thickness of horizons, restrictive horizons, seasonal high water table, etc.), a field-delineated soil map, a representative soils analysis (i.e., Standard Soil Fertility Analysis) for fourteen required parameters (e.g., acidity, cation exchange capacity, phosphorus, pH, etc.), and recommendations concerning loading rates of wastewater constituents to be applied and hydraulic loading rates based on in-situ measurement of saturated hydraulic conductivity in the most restrictive soil horizon.

Other information required per 15A NCAC 02T .0504 includes Engineering Design Documents prepared by a licensed North Carolina Professional Engineer, Site Plans and information prepared by a North Carolina licensed Professional Land Surveyor, a Hydrogeologic Description prepared by a North Carolina licensed Soil Scientist, Geologist or Professional Engineer, a complete chemical analysis of the typical wastewater to be discharged, site setbacks determination, an Operation and Maintenance Plan, a Residuals Management Plan, etc.

All of these analyses conclude that the site is capable of accepting the 1.4 million gallons per day of flow. In the event situations occur where treated effluent cannot be land applied (i.e., rain events, snow, ice, high-winds), there is approximately 14 days of wet weather storage provided to divert flow when it cannot be irrigated. In addition, since Sanderson Farms is a private company, they themselves have the ability to reduce wastewater generation if necessary.

14. If the wastewater is as clean as Sanderson Farms says it is, why don't they reuse it?

The State of North Carolina does not permit the use of reclaimed water for direct use in a chicken processing facility. In addition, the USDA would also not approve this practice.

15. Will the spray site be able to maintain a cover crop throughout the year given periods of wet weather combined with wastewater irrigation?

The submitted Agronomic Evaluation demonstrated that the pasture irrigation fields will have a vegetative cover crop of hybrid Bermuda grass with a rye overseed in the wintertime. The wooded irrigation fields consist of loblolly pines with vegetative undergrowth. Accordingly, both types of irrigation fields will be able to maintain a year-round cover crop.

IX. Division Response to Public Concerns (continued):

16. *Why does the annual representative soils analysis not include nitrogen and any metals (e.g., arsenic) that are additives in chicken feed as variables to be monitored in the soils?*

The minimum requirements for the annual representative soil analysis has been amended to include that Sanderson Farms sample for arsenic and nitrogen.

17. *Has an archaeological study of the proposed site been conducted?*

While not required as part of the application submittal, Sanderson Farms did conduct an archaeological study of the proposed site. A copy of this report may be found in [Appendix J](#).

18. *What problems will the Sanderson Farms operation pose for the community in the event of a natural disaster?*

Condition III.1. of the proposed permit, as well as 15A NCAC 02T .0507 require that the facility keep and maintain an Operation and Maintenance (O&M) Plan for all treatment and disposal systems.

Please note that 15A NCAC 02T .0507 requires the following:

- Description of the operation of the system in sufficient detail to show what operations are necessary for the system to function and by whom the functions are to be conducted.
- Description of anticipated maintenance of the system.
- Include provisions for safety measures including restriction of access to the site and equipment.
- Include spill control provisions such as response to upsets and bypasses including control, containment and remediation, as well as contact information for plant personnel, emergency responders and regulatory agencies.

19. *Why are you permitting this facility given Sanderson Farms poor compliance record at its other facilities?*

The Division does give historical consideration to Applicants when determining permit approval. Specifically, 15A NCAC 02T .0120(b) requires that:

“When any of the following apply, permits for new and expanding facilities shall not be granted, unless the Division determines that the permit is specifically and solely needed for the construction of facilities to resolve non-compliance with any environmental statute or rule:

- (1) The applicant or any parent, subsidiary, or other affiliate of the applicant or parent has been convicted of environmental crimes under G.S. 143-215.6B or under Federal law that would otherwise be prosecuted under G.S. 143-215.6B where all appeals have been abandoned or exhausted.
- (2) The applicant or any affiliation has previously abandoned a wastewater treatment facility without properly closing the facility in accordance with the permit or this Subchapter.
- (3) The applicant or any affiliation has not paid a civil penalty where all appeals have been abandoned or exhausted.

IX. Division Response to Public Concerns (continued):

(4) The applicant or any affiliation is currently not compliant with any compliance schedule in a permit, settlement agreement or order.

(5) The applicant or any affiliation has not paid an annual fee in accordance with Rule .0105(e)(2)."

At the time of this report, the Division is not aware of any circumstance that would prevent issuance of the subject permit based on the above criteria.

20. Why did Sanderson Farms think they could begin construction without all required permits?

During the September 17th public meeting, several speakers noted that construction activities were already occurring at the proposed site. The following day, Jim Barber of the Fayetteville Regional Office conducted an inspection and determined that Sanderson Farms was excavating soils from the proposed location of the wet weather storage basin. On September 25, 2015 a Notice of Violation (NOV-2015-CV-0007) was sent to Sanderson Farms for conducting construction activities without a valid permit. The Division subsequently received a response from Sanderson Farms on September 30th, where it was noted that all excavation activities would cease. Copies of this correspondence may be found in [Appendix K](#).

21. Why hasn't a cumulative impact analysis been conducted in accordance with General Statute 143-215.1(b)(2)?

Cumulative effects are impacts attributable to the collective effects of a number of projects and include the effects of additional projects similar to the requested permit in areas available for development in the vicinity. The Division proposes to issue a non-discharge permit for operation of the proposed facility. Non-discharge permits do not allow the discharge of treated wastewater to surface waters, but may include those facilities land-applying wastewater. As such non-discharge facilities typically are relatively isolated systems, there are not likely additional projects nearby and therefore the collective effects of multiple projects are less likely to result in increased impacts. Rules applicable to non-discharge systems require protection of water quality standards utilizing, among other things, a compliance boundary wholly located on the Permittee's property, which further reduces the likelihood of elevated cumulative impacts.

G.S. 143-215.1 also requires utilization of practicable waste treatment and disposal alternatives with the least adverse impact on the environment. As non-discharge systems are generally considered to have less adverse impact on the environment, they are typically preferred over discharge systems. Any new facilities/operations in connection with the proposed facility would have to meet statutory and administrative code requirements for protection of water quality standards.

X. Draft Permit Recommendations:

Based on the responses noted in Section IX, the Division shall modify the draft permit as follows:

1. Amend Section IV and Appendix A to include seven surface water monitoring stations.
2. Amend Section IV to include a condition requiring that Sanderson Farms submit an annual nutrient study. This study shall detail the amount of nitrogen and phosphorus applied to each irrigation field over the calendar year, as well as the cumulative loads from previous years. This report shall also include an examination of the annual soil analysis samples for each irrigation field, and shall be compared to previous annual samples. Finally, these results shall be compared to the surface water and groundwater monitoring well results for nitrogen and phosphorus to determine if land application is impacting water quality standards.
3. Amend Section IV to include arsenic and nitrogen testing in the annual representative soil analysis.
4. Amend Sections I and IV, as well as Appendix C to include the two additional upgradient monitoring wells.
5. Amend Section IV to include a condition stating that pursuant to §143-215.1C (b), Sanderson Farms shall provide public notification upon discharge of untreated or partially treated wastewater to surface waters of the State. For discharges of 1,000 gallons or more, Sanderson Farms shall issue a press release to all print and electronic news media that provide general coverage in Robeson County describing details of the discharge. Sanderson Farms shall issue the press release within 48 hours after determining that the discharge has reached surface waters.

In conclusion, it is recommended that the draft for Application No. WQ0037772 with the aforementioned draft permit modifications be issued.

/NDT

APPENDIX A

PUBLIC HEARING REQUESTS

Thornburg, Nathaniel

From: Brian Westmoreland <tarpacker@icloud.com>
Sent: Wednesday, June 10, 2015 11:45 AM
To: Thornburg, Nathaniel; Barber, Jim
Subject: Request for a Public Hearing for the proposed Sanderson Farms Processing Facility's Draft Permit for Wastewater Treatment and Land Application, St. Pauls in Robeson County

Categories: Important

Mr. Thornburg and Mr. Barber,

I am a resident of St. Pauls and wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts has not been made available to the community affected.

I am very concerned about the potential for impacts associated with treatment of process wastewater and its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

Brian Westmoreland
138 Paulownia Dr.
St. Pauls, NC 28384
910-364-6835
tarpacker@icloud.com

Mr. Thornburg

I am a resident of St Pauls, NC, and wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts has not been made available to the community affected.

I am very concerned about the potential for impacts associated with treatment of process wastewater and its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

**Sadie Westmoreland
166 Paulownia Dr
Ph# 910-241-3111
sadielaine@myway.com**

Thornburg, Nathaniel

From: Nancy Gallagher <ngallagher@nc.rr.com>
Sent: Sunday, June 14, 2015 4:22 PM
To: Thornburg, Nathaniel; Barber, Jim
Subject: Request for Public Hearing
Categories: Important

Mr. Thornburg and Mr. Barber,

I am a resident of Deerfield Subdivision in Saint Pauls , NC. I wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts has not been made available to the community which will be effected by this plant affected

I am very concerned about the potential for impacts associated with treatment of process wastewater; its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

Respectfully
Nancy Gallagher
358 Nash Rd
Saint Pauls, NC 28384

Thornburg, Nathaniel

From: roger-live <rogsad1258@live.com>
Sent: Thursday, July 09, 2015 4:37 PM
To: Thornburg, Nathaniel
Categories: Important

Mr. Thornburg

I am a resident of Robeson County one mile from purposed site of Sanderson Farms Processing Facility. I wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts has not been made available to the community affected.

I am very concerned about the potential for impacts associated with treatment of process wastewater and its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

Roger L. Westmoreland
166 Paulownia Dr
St Pauls, NC 28384
Ph# 910-241-3111
rogsad1258@live.com

Thornburg, Nathaniel

From: unclejessie1369007@nc.rr.com
Sent: Thursday, July 09, 2015 8:21 PM
To: Thornburg, Nathaniel
Subject: Request for a Public Hearing for the proposed Sanderson Farms Processing Facility's Draft Permit for Wastewater Treatment and Land Application, St. Pauls in Robeson County

Categories: Important

Mr. Thornburg,

I am a resident of Deerfield subdivision (west of St. Pauls city limits and directly downwind of the proposed Sanderson Farms Slaughterhouse) and wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts, both environmental and socio-economic, has not been made available to the community affected.

I am very concerned about the potential for impacts associated with treatment of process wastewater and its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

Bedford D. Gallagher
358 Nash Road
St. Pauls, NC 28384
(910) 827-1932
unclejessie1369007@nc.rr.com

Thornburg, Nathaniel

From: marvinrea@aol.com
Sent: Thursday, July 09, 2015 8:38 PM
To: Thornburg, Nathaniel; Barber, Jim
Subject: Request for a Public Hearing for the proposed Sanderson Farms Processing Facility's Draft Permit for Wastewater Treatment and Land Application, St. Pauls in Robeson County

Categories: Important

Mr. Thornburg and Mr. Barber,

I am a resident of St. Pauls and wish to make a formal request for a public hearing relating to the draft permit for wastewater treatment and land application for the Sanderson Farms Processing Facility proposed to be located just outside of the Town of St. Pauls in Robeson County.

I make this request because information about the proposed project and its potential impacts has not been made available to the community affected.

I am very concerned about the potential for impacts associated with treatment of process wastewater and its impact on surface water and groundwater and the communities that rely on these resources.

A public hearing will provide the opportunity for the community to learn about the proposal and make comments as to local environmental conditions, potential for impacts and mitigation of impacts.

Marvin Rea
221 N. Old Stage Rd.
St. Pauls, NC 28384
910-734-2542
marvinrea@aol.com

Thornburg, Nathaniel

From: Will Hendrick <whendrick@selcnc.org>
Sent: Friday, July 10, 2015 10:54 AM
To: Thornburg, Nathaniel
Subject: RE: Sanderson Farms permit questions

Categories: Important

Dear Mr. Thornburg,

Thank you for your prompt response to my questions. The Southern Environmental Law Center (“SELC”) respectfully requests that the N.C. Division of Water Resources (“DWR”) hold a public hearing regarding the non-discharge permit application submitted to the Division by Sanderson Farms, Inc. (“Sanderson”) for wastewater irrigation at the company’s planned St. Pauls chicken processing facility.

Local citizens, citizen groups, and non-profit organizations, including SELC, have expressed significant concern regarding the environmental impacts of Sanderson’s project. Further, numerous news outlets in southeastern North Carolina have consistently reported on the progress of Sanderson’s plans. Given substantial public interest in the construction and operation of the Sanderson facility and the risks the project poses to the water quality of southeastern North Carolina, SELC requests that the Division exercise its discretion to hold a public hearing and issue a draft non-discharge permit for Sanderson’s St. Pauls facility to enable appropriate public input.

Sincerely,
Will Hendrick

From: Thornburg, Nathaniel [mailto:nathaniel.thornburg@ncdenr.gov]
Sent: Thursday, July 09, 2015 8:33 AM
To: Will Hendrick
Cc: Risgaard, Jon
Subject: RE: Sanderson Farms permit questions

Will,

Thank you for your questions about the Sanderson Farms facility in St. Pauls. I have addressed each of your comments below.

First, have you received the applicant’s response to your requests for additional information? If so, do you happen to have an electronic copy you can email me? If not, can I send someone to scan copies on Friday?

The additional information request was issued on July 7th. To date, we have not received any response from the Applicant. The additional information response is due no later than the close of business on August 6, 2015. Once a response is received, you are welcome to review the package and make copies if so desired.

Also, do you intend to circulate a draft permit, accept public comment, and/or hold a public hearing before issuance of the final permit? If so, do you have an anticipated timeline re: these opportunities for public input? If not, can you estimate when the final permit will be issued?

To date we have received three requests for a public hearing on the subject facility. These requests have come from three concerned citizens that reside in a subdivision located southeast of the proposed facility. Jon Risgaard and I are meeting with our Director, Jay Zimmerman, on Friday to brief him on the public hearing requests. The Director will determine whether or not a public hearing is necessary. If a public hearing is deemed necessary, a draft permit will be circulated and the public will have a 30 day period to comment. Once the public comment period is closed, all water resource related

questions will be addressed and a modified draft permit will be presented to the Director for his final permit determination (i.e., issuance, modification, denial).

If a public hearing is not deemed to be necessary, then no formal public comment period will occur. However, the public can request a copy of the draft permit. Since the current project has an additional information request outstanding, the earliest a draft permit could be submitted for signature is likely mid-August.

If you have any additional questions, please contact me at your convenience.

Sincerely,
Nathaniel

Nathaniel D. Thornburg – Supervisor
Division of Water Resources
Water Quality Permitting Section – Non-Discharge Permitting Unit
1617 Mail Service Center
Raleigh, NC 27699-1617
919-807-6453
919-807-6496 FAX
<http://portal.ncdenr.org/web/wq/aps/lau>

DISCLAIMER: All e-mails sent to and from this account are subject to the North Carolina Public Records Law and may be disclosed to third parties.

From: Will Hendrick [<mailto:whendrick@selcnc.org>]
Sent: Wednesday, July 08, 2015 5:30 PM
To: Thornburg, Nathaniel
Subject: Sanderson Farms permit questions

Nathaniel,

I hope you had a happy and relaxing holiday weekend. I'm writing with a few questions related to the nondischarge permit for which Sanderson Farms recently applied.

First, have you received the applicant's response to your requests for additional information? If so, do you happen to have an electronic copy you can email me? If not, can I send someone to scan copies on Friday?

Also, do you intend to circulate a draft permit, accept public comment, and/or hold a public hearing before issuance of the final permit? If so, do you have an anticipated timeline re: these opportunities for public input? If not, can you estimate when the final permit will be issued?

Best,
Will

From: Thornburg, Nathaniel [<mailto:nathaniel.thornburg@ncdenr.gov>]
Sent: Wednesday, May 13, 2015 12:28 PM
To: Will Hendrick
Subject: RE: File Review Completion

Will,

I actually have two separate CDs. One is for the irrigation plans and the other is for the treatment system plans. You can stop by any time to copy these.

Nathaniel

Nathaniel D. Thornburg – Environmental Engineer III
Division of Water Resources
Water Quality Permitting Section – Non-Discharge Permitting Unit
1636 Mail Service Center
Raleigh, NC 27699-1636
919-807-6453
919-807-6496 FAX
<http://portal.ncdenr.org/web/wq/aps/lau>

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From: Will Hendrick [<mailto:whendrick@selcnc.org>]
Sent: Tuesday, May 12, 2015 1:48 PM
To: Thornburg, Nathaniel
Subject: File Review Completion

Nathaniel,

Thanks again for enabling my review of the Sanderson Farms permit application materials this morning. I was able to scan almost everything, with two exceptions. The purpose of this email is to identify a way for me to create or otherwise obtain copies of the remaining materials.

- (1) There's a CD in the 3 ring binder (I believe it's under Tab L). I can copy this, but will need to bring an external drive during my visit (my laptop doesn't have an internal CD drive), which I failed to do this morning. Would it be okay for me to copy the CD next Tuesday, 5/19, when I'll already be in Raleigh for the DWR Rules Review stakeholder meeting?
- (2) I was also unable to scan copies of the engineering drawings, as they were too large (12x18?) to fit into the portable scanner. Do you know if, by chance, the materials on the CD included those drawings? If so, then copying the CD will suffice. If not, do you happen to have an electronic copy of the engineering drawings that you can email to me (or that I can copy during my next visit)? Alternatively, does the Division have a large scanner with an email function that I could use to create/send electronic versions myself? If all else fails, I might have to pay for copies. If none of the aforementioned options are available, can you estimate the cost to DWR of duplicating those drawings?

Thanks again for being so helpful. I try to structure these records requests/inpsctions to minimize the time/effort I'm asking DWR personnel to expend in response. As such, I'm open to any alternatives I didn't think of that would put the burden of duplicating the remaining materials on me, rather than on the Division.

Best,
Will

Will Hendrick
Associate Attorney
Southern Environmental Law Center
601 W. Rosemary Street, Suite 220
Chapel Hill, NC 27516-2356
(919) 967-1450
whendrick@selcnc.org

This electronic message and any attached files are confidential and are intended solely for the use of the addressee(s) named above.
This communication may contain material protected by attorney-client, work product or other privileges.

APPENDIX B

PUBLIC HEARING APPROVAL



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

July 13, 2015

MEMORANDUM

To: S. Jay Zimmerman, P.G. – Director *sjz*
Division of Water Resources

Thru: Jon Risgaard – Manager *JR*
Wastewater Branch

From: Nathaniel D. Thornburg – Supervisor *NDT*
Non-Discharge Permitting Unit

Re: Recommendation for a Public Meeting for Non-Discharge Application No. WQ0037772

On May 6, 2015, the Non-Discharge Permitting Unit (NDPU) received a permit application from Sanderson Farms, Inc. (Processing Division) for the irrigation of 1.4 million gallons per day of treated effluent on approximately 350 acres in St. Pauls (Robeson County). To date, the NDPU has received seven requests for a public hearing on the proposed facility, with the requests coming from six individuals at four separate residences near the proposed site, and from the Southern Environmental Law Center. The seven requests raise concerns about the environmental impact of the proposed facility, and specifically cite the potential for contamination to surface water and groundwater, as well as groundwater withdrawals.

Based on the submitted requests and the expressed concerns that deal directly with water resources matters, it is the NDPU and Wastewater Branch's opinion that a public meeting be held in accordance with 15A NCAC 02T .0108(b)(4). This administrative code states that "The Director may: hold public meeting when necessary to obtain additional information needed to complete the review of the application. The application shall be considered as incomplete until the close of the meeting record."

It is also the NDPU and Wastewater Branch's recommendation that Robert Tankard of the Washington Regional Office serve as the public meeting officer. Robert has direct experience with Sanderson Farm's other non-discharge facility in Lenoir County, and his familiarity with the treatment and irrigation processes would be an asset.

APPENDIX C

DRAFT PERMIT NO. WQ0037772



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

DATE OF PERMIT

BOB BILLINGSLEY – DIRECTOR OF DEVELOPMENT
SANDERSON FARMS, INC. (PROCESSING DIVISION)
POST OFFICE BOX 988
LAUREL, MISSISSIPPI 39941-4109

Subject: Permit No. WQ0037772
Sanderson Farms – St. Pauls Facility
Wastewater Irrigation System
Robeson County

Dear Mr. Billingsley:

In accordance with your permit application request received May 6, 2015, and subsequent additional information received July 23, 2015 and August 21, 2015, we are forwarding herewith Permit No. WQ0037772 dated **DATE OF PERMIT**, to Sanderson Farms, Inc. (Processing Division) for the construction and operation of the subject wastewater treatment and irrigation facilities.

This permit shall be effective from the date of issuance until **EXPIRATION DATE**, and shall be subject to the conditions and limitations as specified therein. Please pay particular attention to the monitoring requirements listed in Attachments A, B and C. Failure to establish an adequate system for collecting and maintaining the required operational information shall result in future compliance problems.

For your convenience, customized electronic copies of your facility's NDMR, NDMLR and NDAR-1 reporting forms are available for download at: <http://portal.ncdenr.org/web/wq/aps/lau/reporting>.

Please note the following permit conditions are specific to your permit and require your attention:

- Condition I.1. – This condition requires the Permittee to perform an updated soil scientist evaluation on all irrigation areas containing rehabilitated soils that previously contained old farms roads and structures prior to operation of the subject facility.
- Condition I.2. – This condition requires the Permittee to properly abandon all non-compliance monitoring wells prior to operation of the subject facility.

If any parts, requirements or limitations contained in this permit are unacceptable, the Permittee has the right to request an adjudicatory hearing upon written request within 30 days following receipt of this permit. This request shall be in the form of a written petition, conforming to Chapter 150B of the North Carolina General Statutes, and filed with the Office of Administrative Hearings at 6714 Mail Service Center, Raleigh, NC 27699-6714. Unless such demands are made, this permit shall be final and binding.

Non-Discharge Permitting Unit
1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Phone: 919-807-6464 | Internet: <http://portal.ncdenr.org/web/lau>

Mr. Bob Billingsley
DATE OF PERMIT
Page 2 of 2

One set of approved plans and specifications is being forwarded to you. If you need additional information concerning this permit, please contact Nathaniel Thornburg at (919) 807-6453 or nathaniel.thornburg@ncdenr.gov.

Sincerely,

DRAFT

S. Jay Zimmerman, P.G., Director
Division of Water Resources

cc: Robeson County Health Department (Electronic Copy)
Fayetteville Regional Office, Water Quality Regional Operations Section (Electronic Copy)
Jeffery A. Graves, PE – Charles N. Clark Associates, LTD (Electronic Copy)
Martin Boyd, PE – Carter & Sloope, Inc. (Electronic Copy)
Mark C. Gatlin, PE – Carter & Sloope, Inc. (Electronic Copy)
B. Lane Rivenbark, LLS – Nutter & Associates, Inc. (Electronic Copy)
Beth Buffington – Protection and Enforcement Branch (Electronic Copy)
Central Files
Digital Permit Archive (Electronic Copy)

NORTH CAROLINA
ENVIRONMENTAL MANAGEMENT COMMISSION
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
RALEIGH
WASTEWATER IRRIGATION SYSTEM PERMIT

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules and Regulations

PERMISSION IS HEREBY GRANTED TO

Sanderson Farms, Inc. (Processing Division)
Robeson County

FOR THE

construction and operation of a 1,400,000 gallon per day (GPD) wastewater treatment and irrigation facility consisting of:

a pump station with two 2,150 gallon per minute (GPM) pumps and an influent flow meter; a collection pond pump station with two 200 GPM pumps and a flow meter; a stormwater pump station with two 200 GPM pumps and a flow meter; a flow splitter; a 19.18 million gallon (MG) clay lined, synthetically covered anaerobic pond providing anaerobic treatment and 25% average daily flow equalization with waste gas blowers and burner; an anaerobic pond pump station with two 1,180 GPM pumps and a flow meter; a 523,000 gallon anoxic basin with a 15 horsepower (hp) mixer; a 2,969,000 gallon aeration basin served by nine blowers with a total capacity of 9,855 cubic feet per minute (CFM) blowers, a 2,000 cubic foot (ft³) lime silo, a 1,915 GPM return activated sludge (RAS) screw pumps with a flow meter, and two 5,020 GPM return mixed liquor (RML) screw pumps; a 38,100 gallon de-aeration basin with a 3 hp mixer; a 644,000 gallon clarifier with a waste activated sludge (WAS) line flow meter; a 9.89 MG clay lined waste sludge pond; a Parshall flume; an ultraviolet (UV) disinfection system consisting of two banks in series and a total of 64 lamps; a 22.48 MG wet weather storage pond; an irrigation pump station with three 2,210 GPM vertical turbine pumps and a flow meter; approximately 349.2 acres of spray irrigation area consisting of three zones (East, South and West) and 17 subfields; and all associated piping, valves, controls and appurtenances

to serve the Sanderson Farms – St. Pauls Facility, with no discharge of wastes to surface waters, pursuant to the application received May 6, 2015, and subsequent additional information received by the Division of Water Resources, and in conformity with the project plans, specifications, and other supporting data subsequently filed and approved by the Department of Environment and Natural Resources and considered a part of this permit.

This permit shall be effective from the date of issuance until **EXPIRATION DATE**, and shall be subject to the following specified conditions and limitations:

I. SCHEDULES

1. Upon completion of construction and prior to irrigation, a soil scientist evaluation shall be completed for all areas where old farm roads and structures lie within the permitted irrigation areas. The report shall certify that reconditioned former roads and structure areas are capable of accepting the designed loading rate. This report shall specifically address, but not be limited to, soil features such as soil compaction and saturated hydraulic conductivity of the least permeable layer, as well as any other properties that might impact the soil's ability to accept irrigation water. The requested information must be received and acknowledged in writing by the Fayetteville Regional Office's Water Quality Regional Operations Section at 225 Green St. – Suite 714, Fayetteville, NC 28301-5043, prior to any irrigation of wastewater.
2. Prior to operation, all onsite domestic wells, aquifer test wells and monitoring wells not used for compliance monitoring shall be permanently abandoned. The wells shall be abandoned according to the North Carolina Well Construction Standards (15A NCAC 02C .0113) and local county rules. The Engineering Certification (attached) and Fayetteville Regional Office in-place inspection shall serve as notification to the Division that the aforementioned wells have been permanently abandoned.
3. Upon completion of construction and prior to operation of this permitted facility, a certification (attached) shall be submitted from a licensed North Carolina Professional Engineer certifying that the permitted facility has been installed in accordance with this permit, Division approved plans and specifications, and other supporting documentation, including the location of all monitoring wells as applicable. If this project is to be completed in phases and partially certified, the Permittee shall retain the responsibility to track further construction approved under the same permit, and shall provide a final certificate of completion once the entire project has been completed. Mail the Certification to the Division of Water Resources, Water Quality Permitting Section, 1617 Mail Service Center, Raleigh, NC 27699-1617. [15A NCAC 02T .0116(a)]
4. The Fayetteville Regional Office, telephone number (910) 433-3300, shall be notified at least 48 hours in advance (excluding weekends and holidays) of operation of the installed facilities such that an in-place inspection can be made. Notification to the regional supervisor shall be made from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays. [15A NCAC 02T .0108(b)(2)]
5. The Fayetteville Regional Office, telephone number (910) 433-3300, shall approve monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 prior to installation, and the monitoring wells shall be installed prior to beginning waste disposal operations. The regional office shall be notified at least 48 hours prior to the construction of any monitoring well, and such notification to the regional supervisor shall be made from 8:00 a.m. until 5:00 p.m. on Monday through Friday, excluding State Holidays. The monitoring wells shall be constructed such that the water level in the well is never above or below the screened (open) portion of the well at any time during the year, and in accordance with 15A NCAC 02C .0108. The general location and name for each monitoring well is marked on Figure 1. [15A NCAC 02C .0108, 02T .0108(b)(2)]

6. Within 60 days of completion of the monitoring wells, the Permittee shall submit two original copies of a site map with a scale no greater than 1-inch equals 100 feet; however, special provisions may be granted upon prior approval for large properties. At a minimum, the map shall include the following information:
 - a. The location and identity of each monitoring well.
 - b. The location of major components of the waste disposal system.
 - c. The location of property boundaries within 500 feet of the disposal areas.
 - d. The latitude and longitude of the established horizontal control monument.
 - e. The elevation of the top of the well casing (i.e., measuring point) relative to a common datum.
 - f. The depth of water below the measuring point at the time the measuring point is established.
 - g. The location of compliance and review boundaries.
 - h. The date the map is prepared and/or revised.

Control monuments shall be installed in such a manner and made of such materials that the monument will not be destroyed due to activities taking place on the property. The map and any supporting documentation shall be sent to the Division of Water Resources, Water Quality Permitting Section, 1617 Mail Service Center, Raleigh, NC 27699-1617. [15A NCAC 02T .0108(b)(2)]

7. Gauges to monitor waste levels in the 19.18 million gallon (MG) anaerobic pond, 9.89 MG waste sludge pond, and 22.48 MG wet weather storage pond shall be installed prior to operation. Caution shall be taken not to damage the integrity of the liner (if present) when installing the gauge. [15A NCAC 02T .0108(b)(2), 02T .0505(d)]
8. No later than six months prior to the expiration of this permit, the Permittee shall request renewal of this permit on official Division forms. Upon receipt of the request, the Division will review the adequacy of the facilities described therein, and if warranted, will renew the permit for such period of time and under such conditions and limitations as it may deem appropriate. Please note Rule 15A NCAC 02T .0105(d) requires an updated site map to be submitted with the permit renewal application.

II. PERFORMANCE STANDARDS

1. The subject non-discharge facilities shall be effectively maintained and operated at all times so there is no discharge to surface waters, nor any contravention of groundwater or surface water standards. In the event the facilities fail to perform satisfactorily, including the creation of nuisance conditions due to improper operation and maintenance, or failure of the irrigation areas to adequately assimilate the effluent, the Permittee shall take immediate corrective actions including Division required actions, such as the construction of additional or replacement wastewater treatment or irrigation facilities. [G.S. 143-215.1, 143-213.3(a)]
2. This permit shall not relieve the Permittee of their responsibility for damages to groundwater or surface water resulting from the operation of this facility. [15A NCAC 02B .0200, 02L .0100]
3. All wells constructed for purposes of groundwater monitoring shall be constructed in accordance with 15A NCAC 02C .0108 (Standards of Construction for Wells Other than Water Supply), and any other jurisdictional laws and regulations pertaining to well construction. [15A NCAC 02C .0108]
4. Effluent quality shall not exceed the limitations specified in Attachment A. [15A NCAC 02T .0108(b)(1), 02T .0505(b)]
5. Application rates, whether hydraulic, nutrient or other pollutant, shall not exceed those specified in Attachment B. [15A NCAC 02T .0505(c), 02T .0505(n)]

6. This disposal system was individually permitted on or after December 30, 1983; therefore, the compliance boundary is established at either 250 feet from the effluent disposal area, or 50 feet within the property boundary, whichever is closest to the effluent disposal area. An exceedance of groundwater standards at or beyond the compliance boundary is subject to remediation action according to 15A NCAC 02L .0106(d)(2) as well as enforcement actions in accordance with North Carolina General Statute 143-215.6A through 143-215.6C. [15A NCAC 02L .0106(d)(2), 02L .0107(b)]
7. In accordance with 15A NCAC 02L .0108, the review boundary is established midway between the compliance boundary and the effluent disposal area. Any exceedance of groundwater standards at the review boundary shall require action in accordance with 15A NCAC 02L .0106. [15A NCAC 02L .0106, 02L .0108]
8. The Permittee shall apply for a permit modification to establish a new compliance boundary prior to any sale or transfer of property affecting a compliance boundary. [15A NCAC 02L .0107(c)]
9. In accordance with 15A NCAC 02L .0107(d), no wells, excluding Division approved monitoring wells, shall be constructed within the compliance boundary except as provided for in 15A NCAC 02L .0107(g). [15A NCAC 02L .0107]
10. Except as provided for in 15A NCAC 02L .0107(g), the Permittee shall ensure any landowner who is not the Permittee and owns land within the compliance boundary shall execute and file with the Robeson County Register of Deeds an easement running with the land containing the following items:
 - a. A notice of the permit and number or other description as allowed in 15A NCAC 02L .0107(f)(1);
 - b. Prohibits construction and operation of water supply wells within the compliance boundary; and
 - c. Reserves the right of the Permittee or the State to enter the property within the compliance boundary for purposes related to the permit.

The Director may terminate the easement when its purpose has been fulfilled or is no longer needed.
[15A NCAC 02L .0107(f)]

11. The facilities permitted herein shall be constructed according to the following setbacks:
- a. The setbacks for irrigation sites permitted under 15A NCAC 02T .0500 shall be as follows (all distances in feet):
 - i. Any habitable residence or place of public assembly under separate ownership: 400
 - ii. Any habitable residence or place of public assembly owned by the Permittee: 200
 - iii. Any private or public water supply source: 100
 - iv. Surface waters: 100
 - v. Groundwater lowering ditches: 100
 - vi. Surface water diversions: 25
 - vii. Any well with exception of monitoring wells: 100
 - viii. Any property line: 150
 - ix. Top of slope of embankments or cuts of two feet or more in vertical height: 15
 - x. Any water line from a disposal system: 10
 - xi. Subsurface groundwater lowering drainage systems: 100
 - xii. Any swimming pool: 100
 - xiii. Public right of way: 50
 - xiv. Nitrification field: 20
 - xv. Any building foundation or basement: 15

[15A NCAC 02T .0506(a)]
 - b. The setbacks for storage and treatment units permitted under 15A NCAC 02T .0500 shall be as follows (all distances in feet):
 - i. Any habitable residence or place of public assembly under separate ownership: 100
 - ii. Any private or public water supply source: 100
 - iii. Surface waters: 50
 - iv. Any well with exception of monitoring wells: 100
 - v. Any property line: 50

[15A NCAC 02T .0506(b)]

III. OPERATION AND MAINTENANCE REQUIREMENTS

- 1. The facilities shall be properly maintained and operated at all times. The facilities shall be effectively maintained and operated as a non-discharge system to prevent the discharge of any wastewater resulting from the operation of this facility. The Permittee shall maintain an Operation and Maintenance Plan, which at a minimum shall include operational functions, maintenance schedules, safety measures and a spill response plan. [15A NCAC 02T .0507]
- 2. Upon the Water Pollution Control System Operators Certification Commission’s (WPCSOCC) classification of the subject non-discharge facilities, in accordance with 15A NCAC 08G .0200 the Permittee shall designate and employ a certified operator in responsible charge (ORC) and one or more certified operator(s) as back-up ORC(s). The ORC or their back-up shall visit the facilities in accordance with 15A NCAC 08G .0200, and shall comply with all other conditions specified in the previously cited rules. [15A NCAC 02T .0117]
- 3. A suitable year round vegetative cover shall be maintained at all times, such that crop health is optimized, allows for even distribution of effluent and allows inspection of the irrigation system. [15A NCAC 02T .0108(b)(1)]

4. Adequate measures shall be taken to prevent effluent ponding in or runoff from the irrigation sites listed in Attachment B. [15A NCAC 02T .0108(b)(1)]
5. Irrigation shall not be performed during inclement weather or when the ground is in a condition that will cause ponding or runoff. [15A NCAC 02T .0108(b)(1)]
6. All irrigation equipment shall be tested and calibrated at least once per permit cycle. Calibration records shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. [15A NCAC 02T .0108(b)(1)]
7. Only effluent from the Sanderson Farms – St. Pauls Facility shall be irrigated on the sites listed in Attachment B. [G.S. 143-215.1]
8. No automobiles or machinery shall be allowed on the irrigation sites except during equipment installation or while maintenance is being performed. [15A NCAC 02T .0108(b)(1)]
9. Public access to the irrigation sites and wastewater treatment facilities shall be prohibited. [15A NCAC 02T .0505(q)]
10. The residuals generated from the wastewater treatment facilities shall be disposed or utilized in accordance with 15A NCAC 02T .1100. The Permittee shall maintain a residual management plan pursuant to 15A NCAC 02T .0508. [15A NCAC 02T .0508, 02T .1100]
11. Diversion or bypassing of untreated or partially treated wastewater from the treatment facilities is prohibited. [15A NCAC 02T .0505(j)]
12. Freeboard in the 19.18 million gallon (MG) anaerobic pond, 9.89 MG waste sludge pond, and 22.48 MG wet weather storage pond shall not be less than two feet at any time. [15A NCAC 02T .0505(d)]
13. Gauges to monitor waste levels in the 19.18 million gallon (MG) anaerobic pond, 9.89 MG waste sludge pond, and 22.48 MG wet weather storage pond shall be provided. These gauges shall have readily visible permanent markings, at inch or tenth of a foot increments, indicating the following elevations: maximum liquid level at the top of the temporary liquid storage volume; minimum liquid level at the bottom of the temporary liquid storage volume; and the lowest point on top of the dam. [15A NCAC 02T .0108(b)(1)]
14. A protective vegetative cover shall be established and maintained on all earthen embankments (i.e., outside toe of embankment to maximum allowable temporary storage elevation on the inside of the embankment), berms, pipe runs, erosion control areas, and surface water diversions. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the earthen dikes or embankments. Earthen embankment areas shall be kept mowed or otherwise controlled and accessible. [15A NCAC 02T .0108(b)(1)]

IV. MONITORING AND REPORTING REQUIREMENTS

1. Any Division required monitoring (including groundwater, plant tissue, soil and surface water analyses) necessary to ensure groundwater and surface water protection shall be established, and an acceptable sampling reporting schedule shall be followed. [15A NCAC 02T .0108(c)]
2. A Division certified laboratory shall conduct all laboratory analyses for the required effluent, groundwater or surface water parameters. [15A NCAC 02H .0800]
3. Flow through the treatment facility shall be continuously monitored, and daily flow values shall be reported on Form NDMR.

The Permittee shall install and maintain an appropriate flow measurement device to ensure the accuracy and reliability of flow measurement consistent with accepted engineering and scientific practices. Selected flow measurement devices shall be capable of measuring flows with a maximum deviation of less than ten percent from true flow; accurately calibrated at a minimum of once per year; and maintained to ensure the accuracy of measurements is consistent with the selected device's accepted capability. The Permittee shall maintain records of flow measurement device calibration on file for a period of at least five years. At a minimum, documentation shall include:

- a. Date of flow measurement device calibration,
- b. Name of person performing calibration, and
- c. Percent from true flow.

[15A NCAC 02T .0105(k)]

4. The Permittee shall monitor the effluent from the subject facilities at the frequencies and locations for the parameters specified in Attachment A. [15A NCAC 02T .0108(c)]
5. The Permittee shall maintain adequate records tracking the amount of effluent irrigated. At a minimum, these records shall include the following information for each irrigation site listed in Attachment B:
 - a. Date of irrigation;
 - b. Volume of effluent irrigated;
 - c. Site irrigated;
 - d. Length of time site is irrigated;
 - e. Continuous weekly, monthly, and year-to-date hydraulic (inches/acre) loadings;
 - f. Continuous monthly and year-to-date loadings for any non-hydraulic parameter specifically limited in Attachment B;
 - g. Weather conditions; and
 - h. Maintenance of cover crops.

[15A NCAC 02T .0108(c)]

6. Freeboard (i.e., waste level to the lowest embankment elevation) in the 19.18 million gallon (MG) anaerobic pond, 9.89 MG waste sludge pond, and 22.48 MG wet weather storage pond shall be measured to the nearest inch or tenth of a foot, and recorded weekly. Weekly freeboard records shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. [15A NCAC 02T .0108(c)]

7. Three copies of all monitoring data (as specified in Conditions IV.3. and IV.4.) on Form NDMR for each PPI and three copies of all operation and disposal records (as specified in Conditions IV.5. and IV.6.) on Form NDAR-1 for every site in Attachment B shall be submitted on or before the last day of the following month. If no activities occurred during the monitoring month, monitoring reports are still required documenting the absence of the activity. All information shall be submitted to the following address:

Division of Water Resources
Information Processing Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

[15A NCAC 02T .0105(l)]

8. A record shall be maintained of all residuals removed from this facility. This record shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, this record shall include:
- Name of the residuals hauler;
 - Non-Discharge permit number authorizing the residuals disposal, or a letter from a municipality agreeing to accept the residuals;
 - Date the residuals were hauled; and
 - Volume of residuals removed.

[15A NCAC 02T .0108(b)(1)]

9. A maintenance log shall be maintained at this facility. This log shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, this log shall include:
- Date of calibration of flow measurement device;
 - Visual observations of the plant and plant site; and
 - Record of preventative maintenance (e.g., changing of equipment, adjustments, testing, inspections and cleanings, etc.).

[15A NCAC 02T .0108(b)(1)]

10. Monitoring wells shall be sampled after construction and within 3 months prior to initiating non-discharge disposal operations. Monitoring wells shall be sampled thereafter at the frequencies and for the parameters specified in Attachment C. All mapping, well construction forms, well abandonment forms and monitoring data shall refer to the permit number and the well nomenclature as provided in Attachment C and Figure 1. [15A NCAC 02T .0105(m)]
11. For initial sampling of monitoring wells, the Permittee shall submit a Compliance Monitoring Form (GW-59) and a Well Construction Record Form (GW-1) listing this permit number and the appropriate monitoring well identification number. Initial Compliance Monitoring Forms (GW-59) without copies of the Well Construction Record Forms (GW-1) are deemed incomplete, and may be returned to the Permittee without being processed. [15A NCAC 02T .0105(m)]

12. Two copies of the monitoring well sampling and analysis results shall be submitted on a Compliance Monitoring Form (GW-59), along with attached copies of laboratory analyses, on or before the last working day of the month following the sampling month. The Compliance Monitoring Form (GW-59) shall include this permit number, the appropriate well identification number, and one GW-59a certification form shall be submitted with each set of sampling results. All information shall be submitted to the following address:

Division of Water Resources
Information Processing Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

[15A NCAC 02T .0105(m)]

13. An annual representative soils analysis (i.e., Standard Soil Fertility Analysis) shall be conducted on each irrigation site listed in Attachment B. These results shall be maintained at the facility for a period of no less than five years, and shall be made available to the Division upon request. At a minimum, the Standard Soil Fertility Analysis shall include the following parameters:

Acidity	Exchangeable Sodium Percentage	Phosphorus
Base Saturation (by calculation)	Magnesium	Potassium
Calcium	Manganese	Sodium
Cation Exchange Capacity	Percent Humic Matter	Zinc
Copper	pH	

[15A NCAC 02T .0108(c)]

14. Noncompliance Notification:

The Permittee shall report by telephone to the Fayetteville Regional Office, telephone number (910) 433-3300, as soon as possible, but in no case more than 24 hours, or on the next working day following the occurrence or first knowledge of the occurrence of any of the following:

- a. Treatment of wastes abnormal in quantity or characteristic, including the known passage of a hazardous substance.
- b. Any process unit failure (e.g., mechanical, electrical, etc.), due to known or unknown reasons, rendering the facility incapable of adequate wastewater treatment.
- c. Any facility failure resulting in a by-pass directly to receiving surface waters.
- d. Any time self-monitoring indicates the facility has gone out of compliance with its permit limitations.
- e. Ponding in or runoff from the irrigation sites.

Any emergency requiring immediate reporting (e.g., discharges to surface waters, imminent failure of a storage structure, etc.) outside normal business hours shall be reported to the Division’s Emergency Response personnel at telephone number (800) 662-7956, (800) 858-0368, or (919) 733-3300. Persons reporting such occurrences by telephone shall also file a written report in letter form within five days following first knowledge of the occurrence. This report shall outline the actions taken or proposed to be taken to ensure the problem does not recur. [15A NCAC 02T .0105(l), 02T .0108(b)(1)]

V. INSPECTIONS

1. The Permittee shall provide adequate inspection and maintenance to ensure proper operation of the wastewater treatment and irrigation facilities. [15A NCAC 02T .0108(b)]
2. The Permittee or their designee shall inspect the wastewater treatment and irrigation facilities to prevent malfunctions, facility deterioration and operator errors resulting in discharges, which may cause the release of wastes to the environment, a threat to human health or a public nuisance. The Permittee shall maintain an inspection log that includes, at a minimum, the date and time of inspection, observations made, and any maintenance, repairs, or corrective actions taken. The Permittee shall maintain this inspection log for a period of five years from the date of the inspection, and this log shall be made available to the Division upon request. [15A NCAC 02T .0108(b)]
3. Any duly authorized Division representative may, upon presentation of credentials, enter and inspect any property, premises or place on or related to the wastewater treatment and irrigation facilities permitted herein at any reasonable time for the purpose of determining compliance with this permit; may inspect or copy any records required to be maintained under the terms and conditions of this permit, and may collect groundwater, surface water or leachate samples. [G.S. 143-21.5.3(a)(2)]

VI. GENERAL CONDITIONS

1. Failure to comply with the conditions and limitations contained herein may subject the Permittee to an enforcement action by the Division in accordance with North Carolina General Statutes 143-215.6A to 143-215.6C. [G.S. 143-215.6A to 143-215.6C]
2. This permit shall become voidable if the permitted facilities are not constructed in accordance with the conditions of this permit, the Division approved plans and specifications, and other supporting documentation. [15A NCAC 02T .0110]
3. This permit is effective only with respect to the nature and volume of wastes described in the permit application, Division approved plans and specifications, and other supporting documentation. No variances to applicable rules governing the construction or operation of the permitted facilities are granted, unless specifically requested and approved in this permit pursuant to 15A NCAC 02T .0105(n). [G.S. 143-21.5.1]
4. The issuance of this permit does not exempt the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other jurisdictional government agencies (e.g., local, state, and federal). Of particular concern to the Division are applicable river buffer rules in 15A NCAC 02B .0200; erosion and sedimentation control requirements in 15A NCAC Chapter 4 and under General Permit NCG010000; any requirements pertaining to wetlands under 15A NCAC 02B .0200 and 02H .0500; and documentation of compliance with Article 21 Part 6 of Chapter 143 of the General Statutes. [15A NCAC 02T .0105(c)(6)]
5. In the event the permitted facilities change ownership or the Permittee changes their name, a formal permit modification request shall be submitted to the Division. This request shall be made on official Division forms, and shall include appropriate property ownership documentation and other supporting documentation as necessary. The Permittee of record shall remain fully responsible for maintaining and operating the facilities permitted herein until a permit is issued to the new owner. [15A NCAC 02T .0104]
6. The Permittee shall retain a set of Division approved plans and specifications for the life of the facilities permitted herein. [15A NCAC 02T .0108(b)(1)]
7. The Permittee shall maintain this permit until all permitted facilities herein are properly closed or permitted under another permit issued by the appropriate permitting authority. [15A NCAC 02T .0105(j)]

8. This permit is subject to revocation or unilateral modification upon 60 days notice from the Division Director, in whole or part for the requirements listed in 15A NCAC 02T .0110. [15A NCAC 02T .0110]
9. Unless the Division Director grants a variance, expansion of the permitted facilities contained herein shall not be granted if the Permittee exemplifies any of the criteria in 15A NCAC 02T .0120(b). [15A NCAC 02T .0120]
10. The Permittee shall pay the annual fee within 30 days after being billed by the Division. Failure to pay the annual fee accordingly shall be cause for the Division to revoke this permit. [15A NCAC 02T .0105(e)(3)]

Permit issued this the # day of MONTH YEAR

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DRAFT

S. Jay Zimmerman, P.G., Director
Division of Water Resources
By Authority of the Environmental Management Commission

Permit Number WQ0037772

Permit No. WQ0037772
Sanderson Farms, Inc. (Processing Division)
Sanderson Farms – St. Pauls Facility

Wastewater Irrigation System
DATE OF PERMIT
Robeson County

ENGINEERING CERTIFICATION

Partial Final

In accordance with 15A NCAC 02T .0116, I, _____, as a duly registered Professional Engineer in the State of North Carolina, having the Permittee’s authorization to periodically weekly fully observe the construction of the permitted facility, hereby state to the best of my abilities that due care and diligence was used in the observation of the construction, such that the facility was built within substantial compliance and intent of this permit, the Division-approved plans and specifications, and other supporting documentation.

Any variation to this permit, the Division-approved plans and specifications, and other supporting documentation has been documented in the attached as-built drawings, and shall serve as the Permittee’s minor modification request to amend the permit accordingly.

Provide a brief narrative description of any variations: _____

Professional Engineer’s Name		
Engineering Firm		
Mailing Address		
City	State	Zip
Telephone	E-mail	
NC PE Seal, Signature & Date		

**THE COMPLETED ENGINEERING CERTIFICATION, INCLUDING ALL SUPPORTING INFORMATION AND MATERIALS, SHALL BE SENT TO THE FOLLOWING ADDRESS:
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES
WATER QUALITY PERMITTING SECTION
NON-DISCHARGE PERMITTING UNIT**

By U.S. Postal Service:
1617 MAIL SERVICE CENTER
RALEIGH, NORTH CAROLINA 27699-1617

By Courier/Special Delivery:
512 N. SALISBURY ST.
RALEIGH, NORTH CAROLINA 27604

ATTACHMENT A – LIMITATIONS AND MONITORING REQUIREMENTS

Permit Number: WQ0037772

Version: 1.0

PPI 001 – WWTP Effluent

EFFLUENT CHARACTERISTICS		EFFLUENT LIMITS					MONITORING REQUIREMENTS	
PCS Code	Parameter Description	Units of Measure	Monthly Average	Monthly Geometric Mean	Daily Minimum	Daily Maximum	Measurement Frequency	Sample Type
00310	BOD, 5-Day (20 °C)	mg/L					2 x Week	Composite
00916	Calcium, Total (as Ca)	mg/L					Monthly	Composite
00940	Chloride (as Cl)	mg/L					3 x Year ¹	Composite
31616	Coliform, Fecal MF, M-FC Broth, 44.5 °C	#/100 mL					2 x Week	Grab
50050	Flow, in Conduit or thru Treatment Plant	GPD	1,400,000				Continuous	Recorder
00927	Magnesium, Total (as Mg)	mg/L					Monthly	Composite
00610	Nitrogen, Ammonia Total (as N)	mg/L					2 x Week	Composite
00625	Nitrogen, Kjeldahl, Total (as N)	mg/L					2 x Week	Composite
00620	Nitrogen, Nitrate Total (as N)	mg/L					2 x Week	Composite
00600	Nitrogen, Total (as N)	mg/L					2 x Week	Composite
00400	pH	su					5 x Week	Grab
00665	Phosphorus, Total (as P)	mg/L					2 x Week	Composite
WQ09C	Plant Available Nitrogen – Concentration	mg/L					2 x Week	Calculated
00931	Sodium Adsorption Ratio	ratio					Monthly	Calculated
00929	Sodium, Total (as Na)	mg/L					Monthly	Composite
70300	Solids, Total Dissolved – 180 °C	mg/L					3 x Year ¹	Composite
00530	Solids, Total Suspended	mg/L					2 x Week	Composite

1. 3 x Year sampling shall be conducted during March, July and November.

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ATTACHMENT B - APPROVED LAND APPLICATION SITES AND LIMITATIONS

Permit Number: WQ0037772

Version: 1.0

Sanderson Farms, Inc. (Processing Division) – Sanderson Farms – St. Pauls Facility

IRRIGATION AREA INFORMATION							APPLICATION LIMITATIONS			
Field	Owner	County	Latitude	Longitude	Net Acreage	Dominant Soil Series	Parameter	Hourly Rate	Yearly Max	Units
E1	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82486°	-79.01481°	20.8	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
E2	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82195°	-79.01278°	21.3	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
E3	Sanderson Farms, Inc. (Processing Division)	Robeson	34.81758°	-79.00686°	21.1	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
E4	Sanderson Farms, Inc. (Processing Division)	Robeson	34.81553°	-79.00498°	21.1	Wagram	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
E5	Sanderson Farms, Inc. (Processing Division)	Robeson	34.81583°	-79.00281°	22.1	Wagram	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
S1	Sanderson Farms, Inc. (Processing Division)	Robeson	34.80423°	-79.01200°	21.8	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
S2	Sanderson Farms, Inc. (Processing Division)	Robeson	34.80368°	-79.00985°	20.9	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.16	54.4	inches lbs/ac lbs/ac
S3	Sanderson Farms, Inc. (Processing Division)	Robeson	34.80428°	-79.00735°	20.5	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.16	54.4	inches lbs/ac lbs/ac
S4	Sanderson Farms, Inc. (Processing Division)	Robeson	34.080367°	-79.00492°	22.0	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
S5	Sanderson Farms, Inc. (Processing Division)	Robeson	34.80134°	-79.01774°	18.7	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
S6	Sanderson Farms, Inc. (Processing Division)	Robeson	34.79922°	-79.00953°	23.0	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
W1	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82327°	-79.01946°	18.4	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac

W2	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82271°	-79.02112°	20.0	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
W3	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82185°	-79.02277°	20.3	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
W4	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82320°	-79.02630°	17.2	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
W5	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82394°	-79.03111°	20.7	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
W6	Sanderson Farms, Inc. (Processing Division)	Robeson	34.82602°	-79.03557°	19.5	Norfolk	01284 – Non-Discharge Application Rate WQ09 – Plant Available Nitrogen Phosphorus Loading	0.15	54.4	inches lbs/ac lbs/ac
Total					349.2					

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ATTACHMENT C – GROUNDWATER MONITORING AND LIMITATIONS

Permit Number: WQ0037772

Version: 1.0

Monitoring wells: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7

GROUNDWATER CHARACTERISTICS		GROUNDWATER STANDARDS		MONITORING REQUIREMENTS		
PCS Code	Parameter Description	Daily Maximum		Frequency Measurement	Sample Type	Footnotes
00680	Carbon, Tot Organic (TOC)		mg/L	3 x Year	Grab	1, 4
00940	Chloride (as Cl)	250	mg/L	3 x Year	Grab	1
31616	Coliform, Fecal MF, M-FC Broth, 44.5 °C		#/100 mL	3 x Year	Grab	1
00610	Nitrogen, Ammonia Total (as N)	1.5	mg/L	3 x Year	Grab	1
00620	Nitrogen, Nitrate Total (as N)	10	mg/L	3 x Year	Grab	1
00400	pH	6.5-8.5	su	3 x Year	Grab	1, 2
00665	Phosphorus, Total (as P)		mg/L	3 x Year	Grab	1
70300	Solids, Total Dissolved - 180 °C	500	mg/L	3 x Year	Grab	1
82546	Water Level, Distance from measuring point		feet	3 x Year	Calculated	1, 2, 3

- 3 x Year monitoring shall be conducted in March, July & November; Annual monitoring shall be conducted every November.
- The measurement of water levels shall be made prior to purging the wells. The depth to water in each well shall be measured from the surveyed point on the top of the casing. The measurement of pH shall be made after purging and prior to sampling for the remaining parameters.
- The measuring points (top of well casing) of all monitoring wells shall be surveyed to provide the relative elevation of the measuring point for each monitoring well. The measuring points (top of casing) of all monitoring wells shall be surveyed relative to a common datum.
- If TOC concentrations greater than 10 mg/L are detected in any downgradient monitoring well, additional sampling and analysis must be conducted to identify the individual constituents comprising this TOC concentration. If the TOC concentration as measured in the background monitor well exceeds 10 mg/L, this concentration will be taken to represent the naturally occurring TOC concentration. Any exceedances of this naturally occurring TOC concentration in the downgradient wells shall be subject to the additional sampling and analysis as described above.
- Monitoring wells shall be reported consistent with the nomenclature and location information provided in Figure 1 and this attachment.

APPENDIX D

HEARING OFFICER SELECTION MEMO



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

July 14, 2015

MEMORANDUM

To: Robert Tankard – Supervisor
Water Quality Regional Operations Section – Washington Regional Office

From: S. Jay Zimmerman, P.G. – Director
Division of Water Resources

Re: Public Hearing Officer Designation
Wastewater Treatment and Irrigation System Application No. WQ0037772
Sanderson Farms, Inc. (Processing Division)

I hereby designate you as the Officer for the Public Hearing on the subject non-discharge permit application. The date and location for the public hearing are yet to be determined.

You are requested to hold the public hearing and receive all relevant comments. Following the close of the meeting record, Non-Discharge Permitting Unit staff will work with you to develop findings and recommendations for my consideration. I greatly appreciate your willingness to be a part of this process. If you have any questions, please contact Nathaniel Thornburg at (919) 807-6453.

APPENDIX E

PUBLIC NOTIFICATION

AFFIDAVIT OF PUBLICATION

NORTH CAROLINA
Cumberland County

NOTICE OF PUBLIC MEETING
TO BE HELD BY
THE NORTH CAROLINA ENVIRONMENTAL
MANAGEMENT COMMISSION
ON THE INTENT TO ISSUE A
WASTEWATER IRRIGATION SYSTEM
PERMIT TO SANDERSON FARMS, INC.
(PROCESSING DIVISION) FOR THEIR
PROPOSED ST. PAULS FACILITY

SUBJECT: A public meeting has been scheduled concerning the proposed issuance of Non-Discharge Permit Application No. WQ0037772 to Sanderson Farms, Inc. (Processing Division) for their proposed St. Pauls wastewater treatment and irrigation system. This facility is proposed to be located at 2026 NC Highway 20 in St. Pauls, approximately 2 miles northwest of Interstate 95.

PURPOSE: Sanderson Farms, Inc. (Processing Division) has applied for a wastewater treatment and irrigation permit. On the basis of staff review, and application of Article 21 of Chapter 143, General Statutes of North Carolina, and other lawful standards and regulations, the North Carolina Environmental Management Commission proposes to issue the above-referenced permit subject to specific limitations and special conditions. The Division of Water Resources? Director, pursuant to GS 143-215-4(b) and Administrative Code 15A NCAC 02F .0108(b)(4), has determined that it is in the public interest that a meeting be held to receive all pertinent public comments on whether to issue, revise, or deny the draft permit.

All information received by the close of business on October 2, 2015 will be taken into consideration in finalizing the permitting decision.

MEETING: The meeting will be conducted in the following manner:

1. Explanation of the NC Environmental Management Commission's Permit Procedure and the proposed permit issuance by Division of Water Resources staff.

2. Public Comment - The public meeting is a forum for obtaining water quality resource information that was either overlooked or unavailable to the Division at the time the permit was drafted. Information presented should specifically address issues related to water quality/resource impacts resulting from the proposed Sanderson Farms St. Pauls facility. Comments, statements, data and other information may be submitted in writing or may be presented orally at the meeting. Persons desiring to speak will indicate this intent at the time of registration at the meeting. So that all persons desiring to speak may do so, lengthy statements may be limited at the discretion of the meeting officer. Oral presentations that exceed three minutes must be accompanied by three written copies that will be filed with the meeting clerk at the time of registration.

3. Cross-examination of persons presenting testimony will not be allowed. However, the meeting officer may ask questions for clarification.

4. The meeting record will be closed on October 2, 2015.

WHEN: September 17, 2015 at 7:00 PM (Registration begins at 6:30 PM)
WHERE: R.E. Hooks Community Center
111 N. 3rd St. Saint Pauls, NC 28384

INFORMATION: Copies of the draft wastewater irrigation permit and fact sheet are available at <http://portal.ncdem.org/web/wq/lps/fln> or by writing/calling:
Nathaniel Thornburg
Division of Water Resources
Non-Discharge Permitting Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617
Telephone number: (919) 807-6433
Email: nathaniel.thornburg@ncdem.gov

Written comments regarding the draft permit will be accepted at the above address.

The application and other information are on file at 512 N. Salisbury St., Raleigh, and at the Fayetteville Regional Office located at 225 Green St., Suite 714, Fayetteville. They may be inspected during normal office hours. Copies of the information on file are available upon request and payment of the costs of reproduction is required. All comments and requests regarding this matter should make reference to application number WQ0037772.

Date: August 31, 2015

S. Jay Zimmerman, P.G., Director
Division of Water Resources

9/2 4577246

Before the undersigned, a Notary Public of said County and state, duly commissioned and authorized to administer oaths, affirmations, etc., personally appeared. CINDY O. MCNAIR Who, being duly sworn or affirmed, according to law, doth depose and say that he/she is LEGAL SECRETARY of THE FAYETTEVILLE PUBLISHING COMPANY, a corporation organized and doing business under the Laws of the State of North Carolina, and publishing a newspaper known as the FAYETTEVILLE OBSERVER, in the City of Fayetteville, County and State aforesaid, and that as such he/she makes this affidavit; that he/she is familiar with the books, files and business of said Corporation and by reference to the files of said publication the attached advertisement of CL Legal Line NOTICE OF PUBLIC MEETING TO BE HELD BY THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION of NC DIVISION OF WATER QUALITY was inserted in the aforesaid newspaper in space, and on dates as follows:

9/2/2015

and at the time of such publication The Fayetteville Observer was a newspaper meeting all the requirements and qualifications prescribed by Sec. No. 1-597 G.S. of N.C.

The above is correctly copied from the books and files of the aforesaid corporation and publication.

Cindy O. McNair

LEGAL SECRETARY

Title

Cumberland County, North Carolina

Sworn or affirmed to, and subscribed before me, this 2 day of September, A.D., 2015.

In Testimony Whereof, I have hereunto set my hand and affixed my official seal, the day and year aforesaid.

Pamela H. Walters

Pamela H. Walters, Notary Public

My commission expires 5th day of December, 2015.

MAIL TO: NC DIVISION OF WATER QUALITY
1617 MAIL SERVICE CENTER
RALEIGH, NC 27699-00001617

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APPENDIX F

PUBLIC FACT SHEET



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

September 2, 2015

MEMORANDUM

To: All Interested Parties

From: Jon Risgaard – Manager 
Water Quality Permitting Section – Wastewater Branch

Re: Public Information Fact Sheet for Proposed Non-Discharge Permit No. WQ0037772

On May 6, 2015, the Division of Water Resources' Non-Discharge Permitting Unit received a permit application for a wastewater treatment and irrigation system (Application No. WQ0037772) for Sanderson Farms' proposed St. Pauls facility located in Robeson County. The permit application request proposes to construct and operate:

- a 1.4 million gallon per day (MGD) wastewater treatment plant consisting of a clay lined, synthetically covered anaerobic pond; an anoxic basin; an aeration basin; a de-aeration basin; a clarifier; a clay lined bio-solids pond; an ultraviolet (UV) disinfection system; and a wet weather storage pond; as well as an
- irrigation system consisting of approximately 350 acres of spray irrigation fields capable of accepting over 1.41 MGD of treated wastewater effluent.

The permit application request has been reviewed by both Division of Water Resources' Central and Fayetteville Regional Staff, with additional information requested on July 7, 2015 and August 10, 2015 with responses received July 23, 2015 and August 21, 2015, respectively. A draft permit was approved by the Division of Water Resources and Sanderson Farms, Inc. (Processing Division) on August 26, 2015.

From June 10, 2015 to July 10, 2015, the Division of Water Resources received public hearing requests six individuals at four separate residences near the proposed site, and from the Southern Environmental Law Center. The seven requests raise concerns about the environmental impact of the proposed facility, and specifically cite the potential for contamination to surface water and groundwater, as well as groundwater withdrawals.

In response, the DWR Director's Office approved the request and appointed Robert Tankard, assistant supervisor of the Washington Regional Office's Water Quality Regional Operations Section, as the hearing officer. The public comment period will open on September 2nd with public notification via the Fayetteville Observer and the DWR website. The hearing has been scheduled for Thursday, September 17, 2015, and the 30-day public comment period will close at the end of business on October 2, 2015.

For further information regarding the Sanderson Farms – St. Pauls Facility and the public hearing process, please read the Fact Sheet presented on Pages 2 through 4.

Non-Discharge Permitting Unit
1617 Mail Service Center, Raleigh, North Carolina 27699-1617
Phone: 919-807-6464 \ Internet: <http://portal.ncdenr.org/web/wq>

Sanderson Farms – St. Pauls Facility
September 2, 2015
Page 2 of 4

Sanderson Farms – St. Pauls Facility Public Hearing Fact Sheet

1. TYPES OF OPERATIONS COVERED

A. Activities Covered by this Permit:

On the basis of a Division of Water Resources review, the North Carolina Environmental Management Commission proposes to permit the Sanderson Farms – St. Pauls Facility Wastewater Irrigation System (Application No. WQ0037772).

B. Geographic Area Covered by this Permit:

The proposed facility is to be located at 2026 NC Highway 20 in St. Pauls, approximately 2 miles northwest of Interstate 95. Facility coordinates are 34.832061° N, -79.011754° W.

C. Types of Wastewater Produced:

The wastewater consists of 100% industrial waste generated at the proposed facility.

D. Description of the Proposed Treatment & Disposal Facilities:

a pump station with two 2,150 gallon per minute (GPM) pumps and an influent flow meter; a primary stormwater pump station with two 200 GPM pumps and a flow meter; a secondary stormwater pump station with two 200 GPM pumps and a flow meter; a flow splitter; a 19.18 million gallon (MG) clay lined, synthetically covered anaerobic pond providing anaerobic treatment and 25% average daily flow equalization with waste gas blowers and burner; an anaerobic pond pump station with two 1,180 GPM pumps and a flow meter; a 523,000 gallon anoxic basing with a 15 horsepower (hp) mixer; a 2,969,000 gallon aeration basin served by nine 9,855 cubic feet per minute (CFM) blowers, a 2,000 cubic foot (ft³) lime silo, two 1,915 GPM recycled activated sludge (RAS) screw pumps with a flow meter, and two 5,020 GPM recycle mixed liquor (RML) screw pumps; a 38,100 gallon de-aeration basin with a 3 hp mixer; a 644,000 gallon clarifier with a waste activated sludge (WAS) line flow meter; a 9.89 MG clay lined waste sludge pond; a Parshall flume; an ultraviolet (UV) disinfection system consisting of two banks in series and a total of 64 lamps; a 22.48 MG wet weather storage pond; an irrigation pump station with three 2,210 GPM vertical turbine pumps and a flow meter; approximately 349.2 acres of spray irrigation area consisting of three zones (East, South and West) and 17 subfields; and all associated piping, valves, controls and appurtenances.

2. BASIS FOR ISSUING A STATE NON-DISCHARGE PERMIT

The Division of Water Resources has been delegated authority by the Environmental Management Commission to issue non-discharge permits in the state of North Carolina. This draft permit was developed based on an application for a Wastewater Irrigation System Permit (WQ0037772), received from Sanderson Farms, Inc. (Processing Division) on May 6, 2015, and additional information received July 23, 2015 and August 21, 2015.

3. THE ADMINISTRATIVE RECORD

The administrative record, including the original application, received additional information, Division of Water Resources review comments, and the draft permit are available for review and copying at the Archdale Building located at 512 N. Salisbury St., Raleigh, NC 27604; and at the Division of Water Resources' Fayetteville Regional Office at 225 Green St., Suite 714, Fayetteville, NC 28301 between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday. Copies of the administrative record can be provided at a charge of 5 cents per page.

Sanderson Farms – St. Pauls Facility
September 2, 2015
Page 3 of 4

4. PUBLIC COMMENT SCHEDULE.

Draft permit to public notice: September 2, 2015
Public Meeting date: September 17, 2015
Public comment period closes: October 2, 2015

5. EFFECTIVE DATE AND LENGTH OF THE PERMIT

The permit will be effective upon issuance and will not exceed a time period of five years.

6. PROCEDURES FOR THE FORMULATION OF FINAL DETERMINATIONS

The Division of Water Resources Director, pursuant to General Statute 143-215. 4(b) (1) and (2) and Administrative Code 15A NCAC 02T .0108, has determined that it is in the public interest that a meeting be held to receive all pertinent public comment on whether to issue, deny, or modify the draft permit. All information received prior to the close of business on October 2, 2015, will be taken into consideration in finalizing the permit decision. The meeting will be held on Thursday September 17, 2015 at 7:00 p.m. at the R.E. Hooks Center located at 176 N. 3rd St., Saint Pauls, NC 28384. Registration will begin at 6:30 p.m.

The meeting will be conducted in the following manner:

- A. Explanation of the NC Environmental Management Commission's Permitting Procedure and contents of the draft permit by the Division of Water Resources staff.
- B. Public Comment – The public meeting is a forum for the Division to obtain water quality/resource information that was either overlooked or unavailable at the time the permit was drafted. INFORMATION PRESENTED SHOULD SPECIFICALLY ADDRESS ISSUES RELATED TO WATER QUALITY/RESOURCE IMPACTS RESULTING FROM WASTE MANAGEMENT AT THIS FACILITY. Comments, statements, data and other information may be submitted in writing prior to or during the meeting, or may be presented orally at the meeting. Persons desiring to speak will indicate this intent at the time of registration at the meeting. So that all persons desiring to speak may do so, lengthy statements may be limited at the discretion of the meeting officer. Oral presentations that exceed three minutes must be accompanied by three written copies, which will be filed with the meeting clerk at the time of registration.
- C. Cross-examination of persons presenting testimony will not be allowed. However, the meeting officer may ask questions for clarification.
- D. The meeting record will be closed at the conclusion of the meeting.

Sanderson Farms – St. Pauls Facility
September 2, 2015
Page 4 of 4

7. COMMENT PERIOD

The comment period for the draft permit will conclude at the close of business on October 2, 2015. All comments received until this time will be considered in the formulation of final determinations with regard to this permit.

Interested persons are invited to submit written comments on the draft permit or on the Division of Water Resources' proposed determinations to the address below:

**Division of Water Resources
Water Quality Permitting Section
Non-Discharge Permitting Unit
1617 Mail Service Center
Raleigh, North Carolina 27699-1617
Attn: Nathaniel Thornburg**

/NDT

APPENDIX G

PUBLIC HEARING TRANSCRIPT

1. Speaker: Lora Kay Oxendine Taylor (First Comments)
Representing: The Lumber River

"I am Lora Kay Oxendine Taylor. I'm a Lumbee. This is my aboriginal territory. As an indigenous person I think that further research needs to occur. You, as mentioned in the general discussions out here, you're in wetlands. I want to know what you're going to do to protect the wetlands. I want to know what you're going to do to protect the grounds. Most important, I want to know what you are doing to protect archeological sites. There has been no reports submitted, to my knowledge to the State. To any ground disturbances that are going on. We have too many health problems because of large farming. I am not against the large farming. I am against how it is occurring. Too much contamination in the ground, which then eventually seeps into the waters, which eventually seeps into the Long Man. For those of you that do not know what the Long Man is, that is the river. The main river. And then it stretches out into the veins of that Long Man. Children are playing in these areas. Our water resources are coming from these areas, and too many chemicals are being used. Not only are they rank in the air, excuse me, but I have been around farms and it is horrible. I know of cancer that has grown tremendously since I have lived here in the last twenty, thirty years. It's got to stop. It's the government's responsibility, it's this board's responsibility, and it's just the State's responsibility. And federal laws fall somewhere, so it is the federal laws as well that should be standing up for not only the aboriginal people, but as well, those who have moved onto these lands. I'm just, I just don't know what to say to you. You know, you've given a permit. It's like you've already been given a green light before even a public hearing. So, where is the justice for the people? Especially the aboriginal people that do not have the health care. And it's not just one tribe of sixty plus thousand people, but it's all the other small bands that are living in this area that are suffering. Because everybody thinks, let's just move it. Let's cut down the trees. You are removing our medicines, our natural medicines from the ground. Let me see if I say this right. The Loblolly Pine is gone. I've seen the reports. To build farms. And once again, I have nothing against farming. My people are rattle shakers and they are tillers of the soil. So farming was here long before anybody else arrived. But we were not using chemicals to kill off everything. I'm asking you to look into this. I'm asking you to stop any more permits until something more natural is used and created. And I thank you for the time. Thank you.

Ok, excuse me. I don't think I have used all of my five minutes, and if I have, you'll have to excuse me. Since it's a draft, some approvals are surely being looked at. Before you permit the approval, these are my concerns, ok. And I think everything should be put in every newspaper around. Not just in St. Pauls, but out Robeson County, and Pembroke, and Lumberton, and up above you. Everything that is decided should go into the media, so the people know what is going on. Draft wise or permit. Thank you."

2. Speaker: Bill Shell
Representing: Self

"Thank you gentleman. My name is Bill Shell. I drove up here from Wilmington. I'm not a local person, but issuance of this permit affects us in Wilmington, as it will affect all the people downstream from this plant. I was interested to notice the previous speaker talked about farming operations. This is not a farming operation. It has nothing to do with farming. This is a major industrial operation from a low wage polluter, and that's exactly what we have here. I found out about this this week. This is the first publicity really we've had in the Wilmington area that has really reached people, and we're very concerned about it. The facts that I see are stunning. You have a chicken processing plant that's going to process sixty-five million chickens a year. That's the numbers. One point four million gallons per day of effluent. That's five hundred and eleven million gallons per year. You're going to spray that over 350 acres, which is a large, large area. There is no way that that effluent is not going to make it into the Cape Fear River. If you believe otherwise, you're nuts because that's the way it's going to be. Now, we're concerned about that river quality because we get our drinking water from the Cape Fear River. Most every person in New Hanover County gets their drinking water from the Cape Fear

2. Speaker: Bill Shell
Representing: Self
(continued)

River. Most of northern Brunswick County do. We have several hundred thousand people, which depend upon the Cape Fear River for their drinking water. So, this just isn't a farm. We don't have to in eastern North Carolina be a host to every low wage polluter in America. And that's what we have here. This is a low wage industry. Which pays low wages. Which preys upon people in poor counties just for the exact purpose that they can get what they want because they promise jobs at low wages. We don't have to become the repository of that pollution. So, our concern is the drinking water. This permit application was received on May the sixth. In three months it was processed and a draft was issued. Much too quick. I'm not a technical person, but I've been involved in environmental litigation before. I happen to know quite a bit about it. It's much too quick. We don't want this plant, period. But if we're going to have this plant, it needs to be with appropriate restrictions, and I do not see those restrictions in this draft permit whatsoever. The reason we need that is because, to be quite frank with you, I know you gentlemen are professionals. I understand that. I think that, at least, I assume all of you are career employees. I have no confidence whatsoever that DENR will monitor and enforce this permit if it's issued. The political persons are going to call the shots, and DENR is going to do exactly what they say to do. And with the current climate we have in Raleigh today, I know what those shots are going to be. So, we not only have the concern about the quality of the river itself, and the hundreds of thousands of people who depend upon it for drinking water, but I will tell you right now, the people in my area have absolutely no confidence in DENR right now, and its environmental record. Thank you."

3. Speaker: Christine Ellis
Representing: Winyah Rivers Foundation

"Hello. My name is Christine Ellis. I am river advocate with Winyah Rivers Foundation, a waterkeepers organization. I'm going to hand in some written comments, and follow up with more detailed comments before October 2nd, but I do have some oral comments to provide. I've written them down so I don't forget anything. There's plenty of research showing that land application of animal waste does not protect water quality. Decades worth of research, including the June 2015 USGS study that showed that same impact. And that USGS study was focused on the North Carolina coastal plain and associated with the same type of activity we are talking about today. Yet, Sanderson Farms is seeking a permit to land apply its slaughterhouse wastewater. One question that we have, of course, is given the enormous amount of research and conclusions over the past decade and beyond, how can communities be assured that this slaughterhouse will not pollute groundwater, wetlands, streams and the Lumber River? Poultry slaughter has relatively high water use, mostly non-consumptive, and it does contain numerous pollutants of particular concern to State waters, including nutrients such as nitrogen and phosphorus, and bacteria. The City of Wilson was concerned enough with protection of their drinking water supply to commission a study of the potential impacts of poultry operations. Their study entitled, *Preliminary Evaluation of Potential Water Quality Concerns Associated with the Proposed Processing Facility in Nash County*, led to conclusions about the potential for over application of nutrients, particularly phosphorus over time, and runoff that would occur as a result of that over application and buildup of phosphorus in the soils. And that was a major cause of concern for the City of Wilson. The Sanderson Farms draft permit only limits the amount of wastewater that can be applied to the spray fields. It does not limit the concentration of pollutants that can be applied to the spray fields. The draft permit includes a requirement for groundwater monitoring three times a year. There is no requirement for surface water monitoring, despite the fact there are several swamps that flow through and adjacent to the slaughterhouse and the spray fields. And if we look at Sanderson Farms record of environmental stewardship, we simply look to its persistent record of water quality violations at its plants outside of North Carolina. At these plants, Sanderson Farms doesn't land apply its waste, it discharges treated wastewater directly under permit to surface water. The Clean Water Act

3. Speaker: Christine Ellis
Representing: Winyah Rivers Foundation
(continued)

permit that they have has requirements limiting the discharge of pollutants. However, Sanderson Farms has violated these permits by discharging pollutants above the specified limits. This should give everyone cause for concern because the permit that Sanderson Farms is seeking doesn't have limits for pollutants. If there are no limits, I suppose there are no violations. The lax requirements in this draft permit make it easy to comply with, but don't guarantee protection of clean water. The draft permit allows a lot of self-monitoring, too, relying on Sanderson Farms to monitor itself and report to the agency only when there is a problem. There's few requirements in this draft permit that even those requirements are often unenforced. Compare your enforcement record: 467 civil penalties in 2011, 217 penalties in 2014. So half, less than half. Even according to the North Carolina Division of Water Quality, and its 2010 Tar Pamlico River Basin plan strategy, the lack of regulation and information and uncertainties in the impacts of poultry operations were identified as a key concern. And basically my understanding with that is what the North Carolina Division of Water Quality saying is that we don't have enough regulation, we don't know what the impacts are, and we're not even pursuing how to enforce and protect water, of any kind. We think it is incumbent upon the State to ensure that State waters will be protected. A good start would be to conduct a comprehensive environmental assessment of the proposed slaughterhouse, but we contend that you shouldn't stop there. The assessment needs to address..." *Time expired.*

A copy of her speech is in [Appendix H](#).

4. Speaker: Larry Baldwin
Representing: Waterkeeper Alliance

"Good evening. My name is Larry Baldwin. I am the concentrated animal feeding operation coordinator for Waterkeeper Alliance in North Carolina. Waterkeeper Alliance is an international group that advocates for clean water. First of all, we are not against jobs. We are not against agriculture. What we are against is pollution. I have a long history of dealing with Sanderson Farms. This company in North Carolina. I was the Neuse River Keeper when the brought a chicken slaughterhouse to Kinston. That process was done through the use of deceit and misinformation by Sanderson Farms, as well as the state and local governments. We learned a lesson from that experience. And when Sanderson Farms set their target for a new slaughterhouse in Nash County, they were met with opposition by well-informed communities and organizations which blocked that move. The next target was outside Fayetteville in Cumberland County. That effort was also met by communities and organizations who were well informed as to the practices of Sanderson Farms in working under a cloak of secrecy to get what they wanted and their apparent disregard for the environmental where they want to build. Now it is your turn St. Pauls and Robeson County. As we have watched this attempt unfold, the same use of misinformation and deceit once again became evident by Sanderson Farms and your state and local governments. This company has a record of poor environmental stewardship in other states, and there is no reason to believe it won't happen here in your backyard. We are here to speak against the issuance of the wastewater treatment permit for Sanderson Farms slaughterhouse, and that's exactly what we are doing. But also at issue here is what would happen if your community, your waters, and the waters of others if this slaughterhouse is constructed. If this construction takes place, as many as 500 new chicken barns will be constructed as a result of this proposed slaughterhouse. Each barn producing millions of pounds of waste every year that will be spread on fields near your communities, as well as others in the Cape Fear, Neuse and likely the Pamlico and Lumber watersheds, adding excessive pollutants to the water and to the ground. But let's get back to the matter at hand, which is the non-discharge permit application that Sanderson Farms is attempting to obtain. Don't let the term non-discharge make you think that there will be no pollution from the facility. Quite the opposite. The wastewater from the slaughterhouse will contain high levels of contaminants, including nitrogen,

4. Speaker: Larry Baldwin
Representing: Waterkeeper Alliance
(continued)

phosphorus, ammonia and fecal coliform bacteria. These contaminants can have a great negative impact to the waters surrounding the location of the slaughterhouse. It is in the best interest of the waters and the environment of the Lumber River and its tributaries and the Town of St. Pauls and communities downstream that depend on clean and healthy water to oppose this permit. Tell the NC Division of Water Resources that you don’t need that kind of negative impact to your waters because these waters do belong to you. Do it, not only for you, but for future generations. This is your legacy to leave your children, grandchildren, and great grandchildren. But of real concern to me, actually just as of today, is the fact that the Division of Water Resources and Sanderson Farms, this already seems to be a done deal. If you drive past the proposed site, there is heavy construction already taking place. So, apparently, this hearing is just a ploy to appear to be good neighbors. It appears the deal is already done. Are you really that arrogant as to play all of us in this way? Apparently so. Thanks for putting big business ahead of the good of the people. I thank you for the time to speak this evening. I will be submitting written comments by the October 2nd deadline. Thank you.”

5. Speaker: Blakely Hildebrand
Representing: Southern Environmental Law Center

“My name is Blakely Hildebrand, and I am an attorney with the Southern Environmental Law Center. I want to thank you for holding this public hearing tonight. Like others have said, I do have written comments that are forthcoming, and I will provide those before the October 2nd deadline. I do want to focus my comments briefly, my brief comments, excuse me, tonight on the cumulative impacts analysis. SELC is very concerned that this analysis has not been conducted. Under North Carolina General Statute 143-215.1.b.2, the Division of Water Resources is required to conduct a cumulative impacts analysis and I quote ‘The Department shall act on all permits who is to prevent violation of water quality standards due to the cumulative effects of permit decisions.’ We contend that this cumulative impacts analysis should include three key components. First, the impact of the Sanderson Farms permit on the water quality of the Lumber River Basin. Ms. Ellis, and Mr. Baldwin and others have already alluded to the concerns of water quality in the Lumber River Basin stemming from the Sanderson Farms non-discharge permit. Second, this cumulative effects analysis should consider the impact of other permitted operations on water quality in the Lumber River Basin and beyond, including the Mountaire processing facility just about a dozen miles away and the Smithfield facility close by as well. Third, this cumulative effects analysis should include an evaluation of the impact of the associated chicken farms, both existing and anticipated, on water quality in the Lumber River Basin. As others have stated, Sanderson Farms will slaughter about 1.25 million chickens per week at its facility here in St. Pauls, and to meet this production goal, Sanderson will contract with about 500 chicken farms in the vicinity of St. Pauls, which will produce approximately 2.5 million pounds of chicken waste each week. Now these farms are deemed permitted, they don’t receive a permit from DWR. They don’t receive a permit, really, from anyone, and to be frank, it is our understanding that DWR doesn’t know where these farms are located. That raises a lot of concern, both for us concerned with water quality, as well as local citizens, as you’ve heard from others. There is no evidence in the draft permit, there is no evidence in the fact sheet associated with the draft permit that any of these impacts have been evaluated. DWR must do its due diligence as required by the Statute before issuing a permit to Sanderson. Thank you very much.”

6. Speaker: Cynthia Quick
Representing: Self

Declined to speak.

7. Speaker: Reverend Mac Legerton (First Comments)
Representing: Self

“Good evening. It’s an honor to be with our state and local officials, and our citizens of Robeson County, and guests who are here tonight. It’s wonderful to see so many people. I remember we had many hearings over, almost 30 years ago here in St. Pauls when a company called US Ecology, of all things, wanted to put a low-level radioactive waste incinerator right out here of St. Pauls. Some of you older folk may remember that and I was at that hearing and it’s good to be back here for this one. They wanted to actually burn radioactive waste, and of course it had never been done in this country, and those permits were denied, and it took about two years though for that process to be halted. So, we’re here tonight to provide input on the water quality and water resource impact of the facility proposed by Sanderson Farms. The proposed site is located not only directly beside the Big Marsh Swamp, but it may actually be partially within the boundaries of both the swamp and the wetlands. By reviewing the topographical map, it is unclear to me what percentage of this massive facility and the grounds are in or near the swamp and wetlands. However, whatever the percentage is, this raises serious questions and concerns regarding the environmental impact of such a facility in the most vulnerable locations of our county. And mind you, it reminds me also when there was a proposal to site a large solid waste facility in the middle of the Green Swamp, and it actually took federal intervention to help influence our state officials to have that proposal denied in the middle of wetlands and swamplands. So, this is a very massive facility, and siting it near wetlands, and in or near a swamp that feeds into our major regional river need be an interest and concern of all. While we can argue, and debate, and disagree about jobs versus with and/or the environment, and jobs that are unhealthy, and jobs that are healthy, whether they are low paying or high paying jobs. The fact is the siting of such a facility at this location should be a concern for everyone. The location itself should cause us to take very serious concerns to reject this proposal. After years of conflicting interest, this was the decision made when there was a similar proposal to site a major facility that was solid waste in the middle of a similar place. In this light, I recommend that the DENR perform an environmental impact study of the cumulative impact of the proposal to determine not only its impact, but also its impact in relation to the overall impact of the meat packing and industrial food production industries in our region. Both are significant. And so, this needs to be done, and we recommend it prior to the granting of the permit and then hopefully that study would be brought back to our community with another public hearing to be shared and for more deliberation concerning the environmental impact of this proposed facility. The study needs to provide a baseline that indicates where we are in terms of the impact of all of these industries on our region and what is our infrastructure capacity to host them. And by infrastructure, I mean the most important part of our infrastructure, which is our natural resources. They are more important than our people. Why? Because long after we’re gone, the water, the swamps, the river, the air will still be here, and the plants and animals that we thrive on, and we eat and we harvest will also be here. So, the jobs are secondary to the importance of our most important infrastructure resource, which is our land and the place that we live. So, it is our responsibility to do everything to ensure the preservation, protection and promotion of our most important resource and infrastructure. Also, the environmental impact study needs to look at the amount of water that is being taken out of our aquifers. A cursory view to 20 to 40 million gallons a day, when you include Smithfield, Campbell Soup and all of the other industrial plants in this area. And what level can our aquifer provide. What is its capacity? So, on both ends of this proposal, we have major concerns and issues with this site. Thank you.”

8. Speaker: Roger Westmoreland
Representing: Self

“Good evening. My name is Roger Westmoreland. I live about a mile, mile and half from here, and a mile from the proposed plant is to be constructed. As the good pastor cited, this plant is being constructed on wetlands, and those wetlands drain within 100 feet of my house. They go, branches off and it goes behind my house and down beside my house, and right next to that branch is a facility daycare center. But my real concern is the manner in which all of this has been conducted. We really didn't know about it until it was really too late. The groundbreaking is occurring. So, my question is if Sanderson is spending all this money, time and effort to start the construction, why would they do that unless they are assured they are going to have these permits. I'm not a lawyer, or technician or anything else. I'm just a civilian out here who lives in this area. And if you have ever come within two to three miles of a chicken house, did you ever wonder what that awful smell was? And I'm going to be a mile down the road from where this plant is. And the water that they're putting on the ground is going to be coming around my house. I just don't like the way that all of this is coming about. People weren't notified. My question, if this was not good enough for Cumberland County, what makes you think it is good enough for Robeson County. I just don't like people arbitrarily that they know what's good for me without asking me. Thank you.”

9. Speaker: Nick Wood
Representing: Self

“Thank you, and thank you sir for I think a lesson in democracy for all of us. My name is Nick Wood. I come here from Durham. Robeson County, I believe looking back at my life, I've laid my head down to sleep here the third most places from the twenty years I grew up in eastern Washington State next to a nuclear waste dump after my folks from Asheville settled there. In my years in the triangle of North Carolina, traveling all over this state. A lot in this part of the state, and working with people and seeing what they go through and trying to do my best and our best to try and make the best out of what is often a bad situation. For the last year and a half I've been coming down this area around the coal ash issue, and I know this is about agri-business, but we find lots and lots of commonalities, and just down where I was visiting a resident today right next to the coal ash dump, right in the swamp, seeping in, just like the swamp and wetlands here. I think, haven't we learned, haven't we learned from history, and I also look knowing what's going on with the hog farms in other parts of the state. Those of us who have driven through Duplin County know that it can hit you like a ton of bricks, and you can pull over and want to vomit if you don't hit the recirc in time. I can't even imagine. I've heard people who have been intimidated for speaking out, and have had to deal with this, and I fail to see how looking at the history and the regulation that the state has done, both on coal ash and agri-business has really been effective. I want to be proven wrong. I always come here. This is why I dress up for y'all because I know that the people who work regulatory agencies do it because they want to protect and do their jobs, and I'm also aware of the politics of all of this. Which gets into the next point, the point of jobs. Because I think that if it weren't for the claim of jobs, no one would say hey let's bring a bunch of chicken crap, stuff, into our community and let's spray it around and let's build this stuff. It's all because of jobs. But it's not really to benefit the community. It's to benefit the people at the top making all sorts of money. These chicken farmers, they put up a lot of money, too, and they risk everything. It's not about the community. It's about a few making a lot of money. These are nasty jobs. People gash themselves. They don't make much more than minimum wage, and they aren't the jobs of healthy communities. People come home and have to take a shot of liquor before they can open their hand and play with their child. And these are the sorts of jobs, but we live in a time where we can learn from history. We can learn from NAFTA, and the failure to stop the exodus of manufacturing jobs and find something else. That's why communities like this are being extorted for the claim of jobs. We can do better, and this isn't all your department, but this is our state. We've got a limited amount of water. Water is life, and we need to look long and hard before we pollute what we have. And think of all the

9. Speaker: Nick Wood
Representing: Self
(continued)

people who are suffering, who are sick and who deserve better. I thank you for your patience for hearing us, and I saw you writing a lot of stuff down, so thank you very much.”

10. Speaker: Will Hendrick
Representing: Southern Environmental Law Center

“Good evening. My name is Will Hendrick. I’m an attorney with the Southern Environmental Law Center. And I’m here because the operation of this chicken slaughterhouse threatens water quality here, and throughout the coastal plain of North Carolina. The threats that were posed by this operation have been sadly, but repeatedly ignored by many of the governmental officials, and St. Pauls and Robeson County, as underscored by the presence of only one here tonight. We’ve asked them to consider the environmental impacts of this proposal, when they’ve otherwise been blinded by the economic opportunity that the previous speaker alluded to. But County and Town Managers have claimed it’s not their purview. It’s not their jurisdiction to protect the natural resources on which their residents rely. They assume that you’ll do that. And I’m so thankful to be here tonight to finally have an opportunity to speak to someone who won’t deny responsibility for protecting water quality. That said, I am concerned by the minimal protection afforded in this draft permit. Instead of requiring Sanderson Farms to fully treat its wastewater, the permit, as with most non-discharge permits, will let the company use the land here in St. Pauls as its wastewater filter. So, instead of requiring them to build an effective wastewater treatment plant, they will have the plants treat their wastewater. Notably, the permit does not include a single limit on what can be in that wastewater. The sixteen parameters that were referenced, there is not one limit on the concentration. You can pull Attachment A out of the draft permit that was made available. In fact, the only actual limit that is placed on the wastewater that this company can spew on this community is how much it can be sprayed, and even that one limitation is questionable. Multiple soil scientists whose work will be referenced in our written comments filled with all the legalese and footnotes that would put these folks to sleep tonight, but they all concluded that the soils and plants on these spray fields cannot assimilate the 1.4 million gallons of wastewater that the permit authorizes Sanderson to spew. They caution that the excess wastewater has to go somewhere, predicted it will either go to groundwater aquifers or runoff into nearby rivers, lakes and streams. And in that respect I am just discouraged that the permit is designed to fail. And as such, at bare minimum, the permit should include ways to identify the anticipated failure of the so called land treatment system. As written, the permit only requires groundwater monitoring, and only on three of the 365 days that the system would be in operation. That’s less than one percent of the time, and it doesn’t have any mention of surface water monitoring. Notably, when DENR first drafted a permit for a similar facility in Kinston, one of its own staff members recommended surface water monitoring. The residents of St. Pauls deserve at least that level of protection. After all, if Sanderson Farms wastewater flows into these precious surface waters and cause algal blooms, lower dissolved oxygen and kill fish. Also when that water pollution gets bad enough, like we’ve seen in the Neuse Basin, the municipalities get stuck with the cleanup bill. So, these chickens will come home to roost, y’all. And when they do, I suspect local government will once again point its finger at DENR say it’s their responsibility. And because that is likely to be the case, I urge the agency to do the job that I know you’re not trying to avoid doing that I know so many expect you to do, and if done, I think properly would require you to revise to adequately prevent Sanderson from polluting water here in St. Pauls. Thank you for your time.”

11. Speaker: Richard Davis
Representing: Self

“Thank you gentlemen. My name is Richard Davis. I’m not an expert on anything, but chicken shit. I know it smells bad, and I know we’re getting ready to have a lot of it. Mr. Westmoreland said that the water will come within 100 feet of his house. If you gentlemen were here long enough, I could take you out and show you the water stands less than 100 feet from his house, 365 days a year. I live in that area. I’m well aware of what the groundwater is going to do, and if the water from Sanderson Farms is as clean as they say it is, why don’t they reuse it? Why are they going to pump it out to us? And as far as you gentlemen, your jobs are considered political, whether you’d like to admit it or not. And when Sanderson Farms offloaded all of those earth movers, if there is anyone in this room tonight that didn’t figure we had it shafted to us, then they need to be enlightened. But I do appreciate your time, and your attentiveness, and it’s a good dog and pony show. Thank you.”

12. Speaker: Gray Jernigan
Representing: Waterkeeper Alliance

“Good evening. My name is Gray Jernigan, and I’m an attorney with Waterkeeper Alliance. I represent North Carolina River Keepers, and all the citizens of North Carolina that value clean water. The draft permit for the proposed slaughterhouse is woefully inadequate to protect water quality. First, as alluded to earlier, it places no limits on the amount of pollutants applied to the spray field areas. The only limits in the permit are to the amount of wastewater applied, not the concentration of pollutants, including nitrogen and phosphorus that lead to eutrophication of our waters and the growth of toxic blue-green algae. Also ammonia, fecal bacteria, and without controlling the concentration of the pollutants applied to the fields there is no way to analyze the actual impacts of the facility. Second, land application area is inadequate in size and condition to uptake the pollutants applied. This will inevitably lead to runoff and cause impacts to nearby waterbodies, as well as groundwater infiltration of the nutrients. Groundwater in eastern North Carolina, which is known to be hydrologically connected to surface waters, and will migrate there. Moving on to the monitoring provisions in the permit, but sticking with groundwater, groundwater monitoring on three days of the year is not adequate to analyze what pollutants are migrating to the surface waters, in what quantities, and that’s a problem when it comes to public health. In a rural area of North Carolina that relies on groundwater drinking water wells, without adequately controlling nitrates, which are harmful to human health, and without adequate monitoring, there is no way to know the potential impacts on drinking water for this area. Additionally, there is no provisions for surface water monitoring for the inevitable impacts, as I’ve explained. And that’s really inexplicable here. A similar facility in Kinston is required to monitor, although those monitoring provisions are inadequate as well. There are at least monitoring provisions. And without adequate monitoring, how can the State ensure compliance with a no discharge permit? Second, the State has really failed to do its due diligence here, as far as collecting background data, conducting background analysis to determine future water quality impacts. There hasn’t been a thorough analysis of the potential impacts, and I mentioned earlier, no meaningful analysis can be conducted without knowing the concentration of pollutants that are going to come out of here. And DENR really owes it to the local residents to conduct this type of analysis, and speaking of that analysis, what is doesn’t consider is the cumulative impacts of this facility on surrounding areas, a wider area than Robeson County. This plant is going to process 1.25 million chickens per week, and they’ve got to come from somewhere. They are going to come from industrial animal factories, all over eastern North Carolina between here and the feed mill in Kinston. That covers areas of the Cape Fear watershed, and it covers areas of the Neuse watershed, in addition to the Lumber watershed. That’s going to affect hundreds of thousands, if not millions of people outside of this area. The recent USGS study that was published earlier this summer shows that there are water quality impacts, significant water quality impacts, when compared against background agricultural areas that don’t contain animal operations. And the industry is completely unregulated. They’re not required to obtain a permit from the State before operating a chicken facility, chicken growing operation, and most of the records are not public, they are confidential

12. Speaker: Gray Jernigan
Representing: Waterkeeper Alliance
(continued)

and kept from the public. And those impacts need to be considered for any meaningful permit to be drafted here. Thank you for your time.”

13. Speaker: Kemp Burdette
Representing: Cape Fear River Watch

“Good evening. My name is Kemp Burdette, I’m the Cape Fear River Keeper. I work usually on the Cape Fear River, and I live in Wilmington. The Sanderson Farms slaughterhouse proposed for Robeson County is not a new idea, as been discussed, it’s just a bad idea. This proposal has already been rejected twice. Once by Nash County, and again by Cumberland County because of overwhelming community opposition. That fact should make the people of Robeson County uncomfortable, and here’s why. Just about everybody knows that you don’t put your well near your septic system, and you don’t drink water downstream of a place where animals poop. It’s common sense, and yet that’s what this proposal is all about. The slaughter house will process around 178,000 chickens per day, one and quarter million per week. Each chicken uses about seven gallons of wastewater in the processing. The slaughterhouse will spray an estimated 1.4 million gallons a day of wastewater onto 350 acres of spray fields near the facility. If you do the math, that’s like adding 54 inches of wastewater on top of the 45 inches of rainwater that this area already gets each year. That’s much, much, much, much more wastewater than the land and crops can take up. And what can’t be taken up will runoff and end up in Big Marsh Swamp and eventually the Lumber River. The wastewater that does soak in will threaten Robeson County’s aquifer, which is the source of much of the County’s drinking water. This is on top of the well documented issues around horrible working conditions and high employee turnover at meat processing plants, elevated risk to public health from these facilities and negative economic impacts in the surrounding communities. However, my main concern as the Cape Fear River Keeper is not the slaughterhouse, it’s the nearly 600 new chicken houses that will be built to supply birds to the plant. Each of those houses would hold about 22,000 birds, and each of those birds would produce about five pounds of waste in its lifetime. A new batch of birds is raised four to six times a year, meaning that in a year, those 600 barns will grow 66 million chickens, and produce 300 million pounds, or 165,000 tons of waste. That waste, combined with the waste of slaughtering all of those birds will be what’s left when all is said and done. Many of these barns will be built in the Cape Fear River watershed, and much of that waste will end up in the Cape Fear River, the drinking water supply for me, and hundreds of thousands of North Carolinians. The Cape Fear is already experiencing toxic algal blooms fueled by an overabundance of nutrients, largely from swine and poultry concentrated animal feeding operations. Levels of harmful bacteria in the river frequently exceed safe levels by orders of magnitude. Adding more nutrients and bacteria will lead to increased fish kills, people and pets becoming sick, and communities turning away from their rivers. The river can’t take anymore waste. The people who depend on the river for their livelihoods, for food and for recreation can’t take anymore waste. The people that live near the barns that are forced to breathe the stench of chicken waste, and suffer the health impacts that come with it, can’t take anymore. This slaughterhouse will be bad for everyone. Everyone involved, except for Sanderson Farms. Thank you for your time.”

14. Speaker: Colin Osborne, III
Representing: Self

“I’m Colin Osborne from Lumberton. Lifelong Robeson County resident. Lumber State Park, Lumber Natural and Scenic River. The Lumber River, a component of the national wild and scenic rivers program. These designations did not happen willy nilly or by happenstance. It took organized citizen effort concerned about momentous changes in their environs. Thirty years ago, right here in St. Pauls, under the leadership of Mayor Claude Fulghum, Town Manager Joe Loflin, and Commissioner Sarah Hay, they all sensed problems with the proposed radioactive waste incinerator that the Reverend had mentioned a moment ago. In Scotland County, a hazardous waste treatment facility on the banks of the Lumber River proposed by the Department of Commerce, who were bringing us this faced immediate opposition. In brief, after several years of sustained political and legal actions, both companies scrapped their plans. The energy generated by these actions led to the designations that I mentioned at the beginning. In spite of the summer drought, our little corner of the state was replete with swamps, streams and a unique river. What will happen when we have one of our massive hurricanes to this operation? We saw it in ’96 with Fran. We saw it with Floyd in ’99. Hog farms that were deemed to be safe; impoundments that weren’t going to be breached, breached all over the eastern part of the state. Now I know this isn’t an impoundment, and I’m not convinced that the level of treatment that is going on here is to the level that we would really like to have. How would the Department of Environment and Natural Resources monitor wastewater discharges, especially when there is less review of violations? It’s been mentioned that there is something like half the number of civil penalties over a period of three years. What will become of the high quality water designations many portions of the Lumber have historically enjoyed? Less than one quarter of one percent of rivers in our country have the designation of wild and scenic river. Will we be able to keep that status, or will poor supervision cause this to be a requiem for a watershed? I thank you.”

A copy of his speech is in [Appendix H](#).

15. Speaker: Lora Kay Oxendine Taylor (Second Comments)
Representing: Lumber River

“I never dreamed I would hear what I am hearing. Never dreamed. I live in the western part of North Carolina amongst the Eastern Band of Cherokee Indians. Their watersheds are being protected. I’m appalled to find out that one of my tribal members, his initiative in this processes. I want to know where the archaeological data is. I want to know why it has not been sent to my tribal people. I have no titles. I’ve got degrees. And an archeological report has not been achieved if ground disturbances is already occurring. What is being lost? Why are you permitting this? Why is the state permitting deaths of millions of people? Hundreds of thousands? One? Why do you continue to allow pollution to go into our waters? And that’s what’s happening. As well, into the grounds for the food that we eat. Should we start sending our medical bills to the state? How about Washington? Where’s FERC, the Federal Energy Regulatory Commission, in all this mess? Do they not oversee the waters? Why are they not sitting at this table this evening? Permits. Drafts. Hearing. I could truly just, put my street clothes on. I’m saddened to find out what I have found out this evening. I came unaware to what was happening here this evening. Suits. Ties. You could have wore blue jeans and boots. Cause that’s how thick it’s going to get. I appreciate the gentlemen that have come up here and spoke. To educate. Me. As an aboriginal. To what is occurring. Mr. Cummings will be hearing from me. I’m not a quiet person and I’m appalled. I’m truly appalled to know that the State is permitting all this contamination. I don’t care if you’re white, polka dotted, pink, yellow, black or Native American, you’re killing us on the east coast. And you’re killing our waterways by permitting these practices to continue, and they need to stop. My address is: 90 Rosie Big Witch, Cherokee, North Carolina 28719. I would like to see an archeological report. I would like to see more information on this information sent to my house, or to my home address. I don’t care if it’s the EPA review. Has that been occurred? Has that been done? Has the EPA been done? Why? Why, as grown men, are you permitting this? Needs to stop. Matter

15. Speaker: Lora Kay Oxendine Taylor (Second Comments)
Representing: Lumber River
(continued)

of fact, any construction that's going on needs to stop. A complete halt until the archeological survey is done, and an EPA review is accomplished. I thank you for giving me the opportunity, as Lora Kay Oxendine Taylor to speak to you twice this evening. But I do believe the forest has already been burnt down. Thank you."

16. Speaker: Reverend Mac Legerton (Second Comments)
Representing: Self

"I'll start now. I'd like to pick up where I left off about the cumulative impacts of this facility. Particularly it relates to your responsibility for water resource impacts. What happens with our meat packing industry here? When you combine it with Campbell Soup, and Campbell Soup has pesticides on the crops that also have to be sprayed. But they use 8 to 10 million gallons per day. I'm not sure how much Smithfield uses, but we have one of the few county-wide water systems, rural county-wide water systems in the state because the USDA paid for it in order for Campbell Soup to come. And Campbell Soup is a pretty good corporate partner for us. And in my job, part of my role is economic development but it's also economic development that looks at four Ps, not just one. The one that we seem to emphasize is profit. The one that our county is emphasizing is productivity of our workers. There's two others. Our people, and most important is our place. And what the meat packing industry has done with the help of the state is target and consume southeastern North Carolina. And a word we need to take to Raleigh, and all of us lay folks heard from the lawyers tonight, and I would hope that if we have to we would go to court of this. These are wetlands. This is a swamp. Look at the map. Have y'all seen this map? It's great, it's ok for an industrial site of St. Pauls to be where it is. But it's not ok for a chicken processing plant that's going to use so much water and spray that water in the middle of a swamp and a wetland. It just makes no sense. And for our State to just give this permit. And I didn't see the maps until today. Cause my life has been consumed by the coal ash situation like so many others here. So, we're waking up, but what we need is the State to grow up. And southeastern North Carolina is just as important as Raleigh, and the reason we are so poor here is because we get, what we call in academia, underdevelopment. This is not development. It's underdevelopment. It's taking the most important infrastructure we have, our resources, and using them to make money that goes out of our community. And that's not even talking about the quality of the jobs. We're not here to do that. But the quality of our water is seriously and fundamentally at risk from this facility. It could be built in other places in Robeson County. Rowland wanted it, but do you know what the Rowland council said? Oh, we'll have to consider it. So, they just went running somewhere else. Up here. But that location is not environmentally able, doesn't have the capacity to manage this. That's the bottom line. Thank you."

APPENDIX H

PUBLIC HEARING SPEECHES

COMMENTS ON SANDERSON FARMS' PROPOSED NON-DISCHARGE PERMIT NO. WQ0037772

Submitted by Christine Ellis, River Advocate with Winyah Rivers Foundation

at the September 17th public hearing in St. Pauls, NC

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Regarding the Sanderson Farms' slaughterhouse and its processing wastewater:

SEP 17 2015

Water Quality
Permitting Section

- Poultry slaughter is characterized by relatively high water use, mostly non-potable. Poultry processing wastewater contains numerous pollutants including phosphorus, nitrogen, fecal coliform, and ammonia.
- Some of these pollutants are considered toxic and their release must be reported annually to the U.S. Environmental Protection Agency.
- Nitrogen and Phosphorus are nutrients commonly used to characterize process wastewater and have the potential to impact water quality if the ratio of N:P in process wastewater results in over-application and runoff due to failure of crop uptake. Phosphorus has received significant attention in the literature because it has been found in higher concentrations in process wastewater.
- Sanderson Farms is seeking approval of a permit to land apply partially treated wastewater from its slaughterhouse onto nearby spray fields.
- In a June 2015 report, the U.S. Geological Survey found that land application of animal waste has a substantial impact on water quality. This study focused on *"Surface Water Quality in Agricultural Watersheds of the North Carolina Coastal Plain Associated with Concentrated Animal Feeding Operations"*.
- In its *"Preliminary Evaluation of Potential Water Quality Concerns Associated with a Proposed Processing Facility in Nash County"* (March 21, 2011 memorandum to the City of Wilson), Tetra Tech reported on the nutrients common in poultry processing wastewater and the potential for excess nitrogen and especially phosphorus to build up in the soil and run off into surface water.
- The draft permit only limits the amount of wastewater that can be applied to spray fields. It does not limit the concentrations of any process wastewater pollutants that can be applied to spray fields.
- Land application of wastewater is minimally regulated and the permits required to land apply wastewater do not include standards that adequately protect surface waters. The requirements are minimal and lax and are not protective of water quality.
- While the amount of wastewater allowed by the draft permit is regulated, wastewater is often applied above recommended rates, ultimately leading to pollutants seeping into ground water and running off into nearby wetlands and streams.

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SEP 17 2015

Water Quality
Permitting Section

- Triannual groundwater monitoring reports pertaining to the Sanderson Farms' facility in Kinston, NC, show negative impacts to groundwater beneath the spray fields, including increases in ammonia concentration at some stations, and notably low pH at all monitoring locations.
- The draft permit references a figure indicating where groundwater monitoring wells will be located but does not provide that figure and it therefore cannot be evaluated as part of this public review process.
- The draft permit fails to include requirements for surface water monitoring necessary to ensure that nearby wetlands and streams are not impacted by runoff from spray fields.
- The lax requirements included in these permits are often unenforced by DENR. DENR enforcement of water quality permits has dropped by over half, from 467 civil penalties in 2011 to 217 civil penalties in 2014 (as of November 2014).
- As referenced in the Tetra Tech report referenced above, "the North Carolina Division of Water Quality (2010 TarPamlico River Basin Plan NSW Strategy, Chapter 6) identified the lack of regulation and information and the concomitant uncertainty in the impacts of poultry operations as a key concern."
- In other states, many of Sanderson Farms' slaughterhouses are permitted to discharge wastewater directly to surface water. Where wastewater is discharged directly to surface waters, the federal Clean Water Act imposes strict requirements to protect water quality. These requirements are not included permits for the land application of wastewater, which are drawn to comply with less protective state law.
- According to EPA, Sanderson Farms is in violation of four out of seven permits authorizing wastewater discharge into surface waters. Violations have occurred for nutrients and fecal coliform bacteria.

Regarding the Sanderson Farms' slaughterhouse, its chicken supply from contracted growers and chicken litter waste from these growers:

- In addition to water quality impacts associated with the slaughterhouse, there are water quality impacts associated with the enormous amount of waste produced by its contracted growers.
- Sanderson Farms will contract with independent growers owning approximately 500 chicken houses. These chicken houses will supply the 1.25 million chickens/week that will be slaughtered at the proposed slaughterhouse.
- These ~500 chicken houses will produce over 2.5 million pounds of chicken waste each week. Poultry waste will be collected and stored in large, uncovered piles from which nutrients and other pollutants run off into neighboring wetlands and streams. Poultry waste will be land applied to fields in a number of communities that will be threatened by pollutants running off into their waterways. The contracted growers' waste

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SEP 17 2015

Water Quality
Permitting Section

management practices have the potential to substantially increase pollution in ground water and surface water.

- As referenced in the Tetra Tech report cited earlier, a NC Extension Service study (NCSU, 2005) found that nonpoint source pollution from animal waste runoff can result in water quality impacts due to excessive levels of nutrients (Nitrogen and Phosphorus), organic matter and pathogens.
- The impact of these chicken houses does not appear to have been considered as part of the cumulative impacts associated with the draft permit for the slaughterhouse but we argue that it should have been.
- Absent a citizen complaint, these contracted growers and their waste management practices are rarely investigated for practices threatening water quality.

Regarding Sanderson Farms' slaughterhouse, contracted growers and the lack of a comprehensive environmental assessment:

- The State failed to evaluate cumulative effects of the processing facility, the associated chicken houses, and similar facilities in the area on water quality in issuing the draft permit.
- Neither Robeson County nor St. Pauls' officials conducted a thorough analysis of the range of environmental impacts of the proposed slaughterhouse before extending economic incentives to Sanderson Farms. The environmental analyses to date provide a grossly limited review of the environmental consequences of the company's proposed expansion into Robeson County.
- The Town, the County and the State owe residents of Robeson County a full accounting of the environmental impacts of this proposed facility before it issues a permit to Sanderson Farms.

Sanderson Farms is a poor steward of the environment.

The company has repeatedly failed to treat the wastewater discharged from its slaughterhouses in other states to the level required to protect receiving waters and has repeatedly violated water quality permits at many of its facilities.

Past actions are reliable predictors of future action and Sanderson Farms has proven either unable or unwilling to conduct business without threatening water quality within the community in which it operates.

Sanderson Farms' slaughterhouse threatens Robeson County's water quality.

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SEP 17 2015

Research shows that poultry processing operations and chicken farm facilities can increase risk to water quality. High runoff of Nitrogen and Phosphorus can occur on even well managed fields.

Neither the State nor Sanderson Farms has any measures in place to protect groundwater, surface water or drinking water sources for the residents of Robeson County and the residents in other communities impacted by Sanderson Farms' ancillary activities by its contracted growers.

The Town, the County, and the State have failed to evaluate and address the full range of environmental impacts associated with the proposed Sanderson Farms' slaughterhouse and its ancillary activities.

The Lumber River serves as a drinking water source for tens of thousands of residents downstream. Surface water pollution from land application of processing wastewater and chicken litter from contracted growers operating in the basin will impact this drinking water source.

The Lumber River is an important and special waterway, designated a state Natural and Scenic River and an 81 mile section designated a National Wild and Scenic River. Proposed waste management practices for the slaughterhouse and its contracted growers will threaten this state and nationally recognized waterway.

The Town, the County, and the State have failed to evaluate and address the full range of environmental impacts associated with the proposed Sanderson Farms' slaughterhouse and its ancillary activities.

It is incumbent upon the State to ensure that State waters will be protected, to conduct a comprehensive environmental assessment of the proposed slaughterhouse and ancillary activities, and to put in place required measures to protect these waters and the communities that rely upon them.

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SEP 17 2015

Water Quality
Permitting Section

Lumber River State Park.
Lumber River Natural and Scenic River.
The Lumber River, a component of the National Wild and Scenic Rivers.

These designations did not happen willy-nilly or by happenstance. It took an organized effort by citizens concerned about momentous changes to their environs. 30 years ago, here in St. Pauls people under the leadership of Mayor Claude Fulghum, Town Manager Joe Loflin, and Commissioner Sara Hay sensed problems with a radioactive waste incinerator. In Scotland County, a hazardous waste treatment facility on the banks of the Lumber River proposed by the Dept. of Commerce faced immediate opposition. In brief, after several years of sustained political and legal actions, both companies scrapped their plans. The energy generated by these actions led directly to the designations mentioned earlier.

In spite of the summer drought, our little corner of the state is replete with streams, swamps and a unique river. How will the Dept of Environment and Natural Resources monitor waste discharges, especially when there is less review of violations.....something like less than half the number of civil penalties over a period of three years? What will become of the High Quality Water Designation many portions of the Lumber have historically enjoyed?

Less than ¼ of 1% of our rivers have the national wild and scenic river designation. Will we be able to keep that status or will poor supervision cause this to be a requiem for a watershed.

Carlin Calhoun
P.O. Box 569
Lumberton, NC 28359

APPENDIX I

E-MAILED PUBLIC COMMENTS

Thornburg, Nathaniel

From: roger-live <rogsad1258@live.com>
Sent: Thursday, October 01, 2015 9:49 AM
To: Thornburg, Nathaniel
Subject: Draft Permit WQ0037772
Attachments: Draft Permit WQ0037772.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Draft Permit WQ0037772 - Sanderson Farms

Mr Nathaniel Thornburg, Our biggest asks for the permit are:

- to conduct a comprehensive cumulative effects analysis of the water quality impacts of the Sanderson slaughterhouse and its ancillary activities, including the hatchery in Lumberton and the 500+ chicken houses that will be required to supply the slaughterhouse. Since there is a similar facility using similar wastewater treatment technology upstream (Mountaire) we think that this cumulative effects analysis should include this and any other operations (e.g., swine operations) in the area that have the potential to impact water quality;

- require upstream and downstream monitoring of the groundwater and surface water before and during onsite activities on a frequency that will ensure water quality is protected;

- impose restrictions on pollutants and wastewater flow that will be protective of groundwater and surface water quality in the area (we are concerned that the spray fields will be inundated by wastewater flow in combination with rainfall in an area with high groundwater levels and often standing water conditions and that it will be difficult to maintain crop cover throughout the year).

- provide assurance that wastewater won't be sprayed or leaked into wetlands associated with Big Marsh Swamp, Black Branch or Gum Swamp

- protect the aquifer from which Sanderson proposes to obtain its water supply (and question other sources of water from which Sanderson will obtain its water supply)

- question the cumulative impacts associated with the Mountaire facility and Browns of Carolina and its land application activities and the potential for water quality impacts

I would like to know why Sanderson Farms thought that they could start construction with out all the permits. Did they think they had the permits or maybe they were assured they would get the permits?

Draft Permit WQ0037772 - Sanderson Farms

Our biggest asks for the permit are:

- to conduct a comprehensive cumulative effects analysis of the water quality impacts of the Sanderson slaughterhouse and its ancillary activities, including the hatchery in Lumberton and the 500+ chicken houses that will be required to supply the slaughterhouse. Since there is a similar facility using similar wastewater treatment technology upstream (Mountaire) we think that this cumulative effects analysis should include this and any other operations (e.g., swine operations) in the area that have the potential to impact water quality;**
- require upstream and downstream monitoring of the groundwater and surface water before and during onsite activities on a frequency that will ensure water quality is protected;**
- impose restrictions on pollutants and wastewater flow that will be protective of groundwater and surface water quality in the area (we are concerned that the spray fields will be inundated by wastewater flow in combination with rainfall in an area with high groundwater levels and often standing water conditions and that it will be difficult to maintain crop cover throughout the year).**
- provide assurance that wastewater won't be sprayed or leaked into wetlands associated with Big Marsh Swamp, Black Branch or Gum Swamp**
- protect the aquifer from which Sanderson proposes to obtain its water supply (and question other sources of water from which Sanderson will obtain its water supply)**
- question the cumulative impacts associated with the Mountaire facility and Browns of Carolina and its land application activities and the potential for water quality impacts**
- anything else you feel pertinent including any personal observations about the area and anecdotal information that you think is important**

Thornburg, Nathaniel

From: marvinrea@aol.com
Sent: Thursday, October 01, 2015 2:26 PM
To: Thornburg, Nathaniel
Subject: Protecting water

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Mr. Thornburg

I am very concerned about the Sanderson poultry operation locating in Robeson County. By starting construction before they have their permit shows they have little interest in complying our laws. They need to be closely monitored to be sure they protect our environment.

Putting so many slaughter operations so close together will have a cumulative effect. Smithfield is about nine miles from St. Pauls, then there is Prestige about 4 miles, then Mountaire about 9 miles away in Lumber Bridge and Butterball turkeys in Raeford.

I live in St. Pauls and work in Lumber Bridge and just this morning the air in Lumber Bridge stunk from Mountaire and I don't know why it is allowed. Is the air in St. Pauls going to stink? Will they be allowed to foul our air?

I'm sure the plant is coming, because the Town of St. Pauls wants the tax dollars, Robeson County wants the tax dollars and the State wants the tax dollars, but at the very least the state needs - to conduct a comprehensive cumulative effects analysis of the water quality impacts of the Sanderson slaughterhouse and its ancillary activities, including the hatchery in Lumberton and the 500+ chicken houses that will be required to supply the slaughterhouse. Since there is a similar facility using similar wastewater treatment technology upstream (Mountaire) we think that this cumulative effects analysis should include this and any other operations (e.g., swine operations) in the area that have the potential to impact water quality;

- require upstream and downstream monitoring of the groundwater and surface water before and during onsite activities on a frequency that will ensure water quality is protected;

- impose restrictions on pollutants and wastewater flow that will be protective of groundwater and surface water quality in the area (we are concerned that the spray fields will be inundated by wastewater flow in combination with rainfall in an area with high groundwater levels and often standing water conditions and that it will be difficult to maintain crop cover throughout the year).

Thanks for listening

Marvin Rea

Thornburg, Nathaniel

From: unclejessie1369007@nc.rr.com
Sent: Thursday, October 01, 2015 6:21 PM
To: Thornburg, Nathaniel
Subject: Draft Permit WQ0037772-Sanderson Farms

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

To whom it may concern,

My name is Bedford Gallagher. My wife and I have been residents of Robeson County for over sixteen years. We live in the approx. eighty-five-residence, established subdivisions of Deerfield and Willoughby Heights. Our residence lies less than three-quarters of a mile east/downwind of the proposed Sanderson Farms slaughterhouse location. This letter is in response to the rather transparent attempts to legitimize and justify what some might perceive as DENR’s so-called valiant efforts in preserving and protecting our natural resources and the environment.

I am a retired member of NCDOT’s Division of Highways. As such, I am intimately familiar with both DENR’s and the EPA’s allowable practices, regulations, etc. regarding construction of highways and various structures. During my time with DOT, I saw firsthand the multitude of projects that required extensive studies/evaluation of the end effects of said projects on the natural, as well as socio-economic, environment of the areas in question.

I also saw the extensive measures that contractors had to implement in order to either eliminate or drastically minimize the amount of siltation infused into streams, wetlands, swamps, etc. Now, DENR is questioning whether ANY environmental assessment is necessary in regards to the Sanderson facility when human health and welfare is at risk. We fully comprehend that the current issue is acceptance of Sanderson’s draft permit request for spraying supposed adequately treated waste waters on top of the soils/vegetation in designated areas. It is interesting to note that the U.S.D.A. has already designated said areas to be “Very Limited” for use as waste spray fields.

The daily application of over a million gallons of wastewater on these fields can hardly be considered “Very Limited”. It has been proven that the leaching of nitrogen and phosphorus (as well as other potentially harmful substances in the waste water) into streams and swamps enhances the growth of surface algae which will drastically reduce the amount of oxygen in these waters. Common sense allows one to comprehend the oxygen reduction’s effect on aquatic life and, in turn, the animal life that occupies the next level on the food chain.

Experience has taught us that too few are concerned with the eradication of the habitat of a few frogs or minnows. So let us look at the potential effects on humans. Oh, I forgot . . . nobody is really concerned about the possible reduction of the water supply in area aquifers, or the possible contamination of these sources of potable water for area residents. It is also highly probable that authorities (at all levels) have no idea whatsoever which area residents have shallow wells (the first possible level of contamination) vs. deep wells. Also, based on my research, Sanderson Farms (as well as others) has more protocols in place to protect their moneymaker chickens from the ongoing sporadic outbreak of Avian Flu than they have for employees or area residents. As the author of an oped piece in an area periodical stated, “Will the wastewater disposal work as billed?” (without a comprehensive assessment) “We really won’t know until it’s too late to do anything about it. That’s the way we do business here, and we will until we make a big, expensive mistake.” We’re guessing that the author included human pain and suffering from maladies caused by contaminants in his/her use of the term “expensive”.

By following current events, we are well aware of the exodus of responsible, conscientious former DENR employees due to high-level administrators’ defanging and neutering of the state’s environmental watchdog, and the inability of subordinate governmental bodies to defy big government/big business and implement environmental controls above and beyond state regulations in order to adequately protect their constituents. We are hoping against hope that someone will stand up, perform their duties in a responsible and ethical manner, initiate an assessment that will include an honest FULL cumulative analysis of the detrimental effects of the installation of the slaughterhouse (as well as other secondary operations such as the transport of chicken entrails to the dog food plant in Fayetteville), and put aside the political hype and half-truths. Sanderson Farms has the high potential of ruining this area and the quality of life of its residents, and benefit only a handful of property owners, politicians, and their puppet-masters.

Last, just so that you can't claim that you were blind-sided (as we were), I am officially notifying you that I am including this letter as part of my submission to periodicals/newspapers (of my choice) as part of my own Opinion letter to dispel half-truths and submit questions which remain unanswered. Will my letter get published? Time will tell.
B.D. Gallagher

Thornburg, Nathaniel

From: Gloria <gloevans@aol.com>
Sent: Thursday, October 01, 2015 9:56 PM
To: Thornburg, Nathaniel
Subject: Sanderson of St. Pauls

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

As a citizen of St. Pauls my entire 48 years, and a business owner with my husband, I would like to make a few comments on a few concerns regarding this plant that was deceitfully placed into our town. It basically knocked me off retiring on my family farm due to it being located right behind this property. However, even if I am not going to move to the farm I am still very concerned with how this industry will most definitely affect our small town. I do not see the grand opportunity our county and town leaders have tried to convince us of at all. All I see is one great environmental nightmare.

I do not comprehend the lack of logic in purposely neglecting to conduct a comprehensive cumulative effects of how this industry will impact our surrounding swamp areas that feed into our rivers. With Mountaire just a few miles away along with a very large Browns of Carolina hog farm containing 20 barns and 2 lagoons right down the road from their future spray fields this will now add to the run off of spray into our swamp and low areas that hold water many days out of the year. Sanderson may have not purchased the land yet for their spray fields on paper with out county off of Great Marsh Church Rd but I know the purpose behind land being purchased above market value by a group of farmers. This will happen in the future because once they are at full capacity the land they have now will not be enough and they will inundate these areas along with this large hog farm right down the road and both having spray fields right beside swamp land. I also know how they operate due to watching Browns of Carolinas deceive our county with permits several years ago. Once they are here they have the power and the ability to continue in a manner that works to their benefit, not the surrounding land owners or our environment. Therefore, please take the time to seriously consider what is best of our land, our citizens and most importantly our precious water quality. For a comprehensive study to not be done is just ignorant!

I also request you to please consider how important it is for our state to hold this company, that has been sited for various violations in all of it's locations, at a higher level of responsibility with their permits and their ability to apply for permits that would enforce more restrictions on pollutants and wastewater flow that will be protective of groundwater and surface water quality in this area. And one would think our officials would want a study conducted to ensure that our town will not suffer from inadequate levels in our aquifers after 10 or so years of production, but apparently no one seems concerned with this possible impact either. This town and area right outside of our town desperately needs your help and I hope that even if our elected officials lack the intelligence to recognize the potential disasters this plant represents that you, the office that holds the authority to help protect us, will look out for our environment's best interest.

My other concerns come from being a home owner one block off of Hwy 20 and owning an office one block off of Hwy 20 in our downtown area. Our small town already has hog trucks coming through down town and chicken trucks due to Mountaire, I can only imagine the horror of having this plant now bringing more right through our downtown. When our citizens exit their cars to go into store fronts they are almost gagged with livestock truck smells if a truck is coming by or has just passed. We will now have an increase to this causing more feathers and pollutants in our air and on our street. Would this not be a factor that the state should conduct a study on also? And the question of where this plant foresees an opportunity for a full staff is also mind boggling. Smithfield nor Mountaire can keep their staff at needed capacity. They bring them in on buses from SC to Mountaire and once Sanderson cycles through the hispanics that are already here this will only increase our illegals that we have now.

Thank you for your time and reading my concerns I have for this industry coming to my small town. I do not see how this plant will be an asset to our community, all I see are the many negative factors it will have on us. I would greatly appreciate any help that your office can assist us with now and in the future.

Thank you,

Gloria Fields Evans
125 N. Old Stage Rd.
St. Pauls, NC 28384

Thornburg, Nathaniel

From: Christine Ellis <christine@winyahivers.org>
Sent: Friday, October 02, 2015 1:07 PM
To: Thornburg, Nathaniel
Cc: Christine Ellis
Subject: Comments - Draft Permit WQ0037772 (Sanderson Farms)
Attachments: WRF Comments - Draft Permit WQ0037772.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Dear Mr. Thornburg,

Please find attached my comments on the draft permit referenced above.

Regards,
Christine Ellis

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Fishable, Swimmable, Drinkable Water for Our Families and Our Future.

Christine Ellis
Deputy Director / River Advocate
Winyah Rivers Foundation, Inc.
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Christine@winyahivers.org
(843) 267-3161
A proud member of WATERKEEPER® ALLIANCE.



**Winyah Rivers Foundation
P.O. Box 261954
Conway, SC 29528-6054**

Friday, October 2, 2015

Nathaniel Thornburg
Division of Water Resources
Water Quality Permitting Section
Non-Discharge Permitting Unit
1617 Mail Service Center
Raleigh, NC 27699-1617

Dear Mr. Thornburg,

Re: Draft Permit WQ0037772 – Sanderson Farms

We consider it incumbent upon the State to ensure that State waters will be protected, to conduct a comprehensive environmental assessment of the proposed slaughterhouse and ancillary activities, and to put in place required measures to protect these waters and the communities that rely upon them. Until and unless this is done, we respectfully request that the draft permit be denied.

Request for Comprehensive Cumulative Effects Analysis:

We ask you to require a comprehensive cumulative effects analysis of the water quality impacts of the Sanderson slaughterhouse and its ancillary activities, including the hatchery in Lumberton and the 500+ chicken houses that will be required to supply the slaughterhouse. Since there is a similar facility using similar wastewater treatment technology (Mountaire) and other wastewater land application sites (Browns of Carolina) directly upstream of the proposed site, we request that this cumulative effects analysis include these operations specifically.

Please note that anecdotal information from a property owner near the Mountaire facility in Lumber Bridge has noted to us that there are nutrient enrichment issues associated with waters nearby to the spray fields and that there are ongoing problems with crop failure due to standing water and overspraying on these fields. We ask that these issues be investigated and addressed as part of this review process.

The State has failed to evaluate cumulative effects of the processing facility, the associated chicken houses, and similar facilities in the area on water quality in issuing the draft permit. Neither Robeson County nor St. Pauls' officials conducted a thorough analysis of the range of environmental impacts of the proposed slaughterhouse before extending economic incentives to Sanderson Farms. The environmental analyses to date provide a grossly limited review of the environmental consequences of the company's proposed expansion into Robeson County. The

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Town, the County and the State owe residents of Robeson County a full accounting of the environmental impacts of this proposed facility before it issues a permit to Sanderson Farms.

In addition to water quality impacts associated with the slaughterhouse, there are water quality impacts associated with the enormous amount of waste produced by its contracted growers. Sanderson Farms will contract with independent growers owning approximately 500 chicken houses. These chicken houses will supply the 1.25 million chickens/week that will be slaughtered at the proposed slaughterhouse. These ~500 chicken houses will produce over 2.5 million pounds of chicken waste each week. Poultry waste will be collected and stored in large, uncovered piles from which nutrients and other pollutants run off into neighboring wetlands and streams. Poultry waste will be land applied to fields in a number of communities that will be threatened by pollutants running off into their waterways. The contracted growers' waste management practices have the potential to substantially increase pollution in ground water and surface water.

As referenced in the Tetra Tech report (referenced below), a NC Extension Service study (NCSU, 2005) found that nonpoint source pollution from animal waste runoff can result in water quality impacts due to excessive levels of nutrients (Nitrogen and Phosphorus), organic matter and pathogens. Yet, the impact of these chicken houses does not appear to have been considered as part of the cumulative impacts associated with the draft permit for the slaughterhouse but we argue that it should have been. Absent a citizen complaint, these contracted growers and their waste management practices are rarely investigated for practices threatening water quality. We do not think this meets the State's requirements to ensure protection of water quality.

Request for Modifications of Draft Permit:

With respect to the proposed slaughterhouse specifically, we request that the draft permit be modified to impose the following requirements at a minimum to protect water quality in the area of concern and downstream for the benefit of all communities potentially impacted:

- upstream and downstream monitoring of the groundwater and surface water before and during onsite activities on a frequency that will ensure water quality is protected
- impose restrictions on pollutants and wastewater flow that will be protective of groundwater and surface water quality in the area
- require additional evaluation and monitoring of the proposed land application areas to address concerns that the spray fields will be inundated by wastewater flow in combination with rainfall in an area with high groundwater levels and often standing water conditions and that crop cover will be maintained at all times
- require additional assurances that wastewater won't be sprayed or leaked into wetlands associated with Big Marsh Swamp, Black Branch or Gum Swamp or other unnamed tributaries as a result of overspray or the numerous ditches

Specifically with respect to groundwater and surface water monitoring, the Operation and Maintenance Plan (Volume I) states "A proposed ground water and surface water monitoring network has been submitted for approval," but it could not be found in the package and therefore could not be evaluated as part of this public input process. There does need to be a comprehensive water monitoring system including an adequate number of monitoring wells

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located downstream of each zone. There also need to be monitoring wells near the fields with less than 60" seasonal high water tables. A minimum of 2 to 3 monitoring wells are needed for each cluster of irrigated fields (E1-2; E3-5; W1-4; W5-6; S1-4; S5; and S6). If there is any runoff or lateral flow from the irrigated fields, samples should be collected for chemical and biological analyses.

In a June 2015 report, the U.S. Geological Survey found that land application of animal waste has a substantial impact on water quality. This study focused on “*Surface Water Quality in Agricultural Watersheds of the North Carolina Coastal Plain Associated with Concentrated Animal Feeding Operations*”.

In its “Preliminary Evaluation of Potential Water Quality Concerns Associated with a Proposed Processing Facility in Nash County” (March 21, 2011 memorandum to the City of Wilson), Tetra Tech reported on the nutrients common in poultry processing wastewater and the potential for excess nitrogen and especially phosphorus to build up in the soil and run off into surface water. As referenced in the Tetra Tech report referenced above, “the North Carolina Division of Water Quality (2010 TarPamlico River Basin Plan NSW Strategy, Chapter 6) identified the lack of regulation and information and the concomitant uncertainty in the impacts of poultry operations as a key concern.”

Land application of wastewater is minimally regulated and the permits required to land apply wastewater do not include standards that adequately protect surface waters. The requirements are minimal and lax and are not protective of water quality.

Below is a Google Earth picture with EPA MyWaters Mapper information included showing the wetlands and streams surrounding the proposed site. Please note the vicinity of wetlands and streams to the spray fields in particular.



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Specifically with respect to the Soils Analysis, our concerns are identified below. In addition, we note the following condition in the draft permit and are concerned with the potential for leaching and runoff resulting from the site conditions:

"Condition I.1. – This condition requires the Permittee to perform an updated soil scientist evaluation on all irrigation areas containing rehabilitated soils that previously contained old farms roads and structures prior to operation of the subject facility."

The amount of designated irrigation quantity is high. Annual precipitation in the area is about 48 inches (the 80th percentile annual precipitation is about 54 inches), and the potential evapotranspiration (ET) is only 34.5 inches/year. This indicates that the input of water is greater than the loss of water, and some runoff or recharge of groundwater is happening under the natural weather conditions even without additional irrigation. The designed annual hydraulic loading (or amount of irrigation) for the land chosen to receive the treated wastewater is 54 inches. A total of 108 inches water (54" precipitation and 54" irrigation) will be added to the land with 34.5 inch lost through evapotranspiration. The net water excess is 73.5 inches per year. Therefore, more runoff or groundwater recharge will take place with the designed quantity of irrigation. Because the soils selected for irrigating the wastewater are well drained or excessively well drained (Lakeland, Norfolk and Wagram soils), it is more likely that the water will enter into groundwater and potentially raise groundwater table or discharge to adjacent drainage systems by lateral flow. The actual impact to water quality depends on the concentration of nutrients (primarily nitrogen and phosphorus) and salts in the percolating or discharged water.

The amount of phosphorus added to the receiving soil is very high. At the planned irrigation rate of 54" treated wastewater per year, it will add about 184 lbs. of total nitrogen (TN) and 245 lbs. of total phosphorus (TP) per acre. The TP equals to 561 lbs. of P₂O₅ (P₂O₅ is the formula commonly used for fertilizers or soil amendments). This amount of phosphorus is equivalent to about 10 tons poultry litter per acre per year. At this rate of P application, it will increase soil test P (Mehlich 3 extraction) by about 20 mg/kg per year in the surface soil (Delaune et al., 2004; Zhang et al., 2005). It is well documented that the dissolved P in runoff water increases as the soil test P increases (Davis et al., 2005; Kleinman et al., 2004; Zhang et al., 2005).

The buffer areas are not clearly specified. The Agronomy Evaluation (4.3) states: "buffer areas will be maintained as currently managed." The width and management of the buffer area need to be clearly stated since the buffer is critical in minimizing nutrient and pathogen losses from the irrigated fields to nearby wetlands and water systems.

The phosphorus assimilation by the soil is overestimated. The phosphorus fixation capacities of the soils were calculated from laboratory P adsorption analyses (P adsorption maximum) and P removals by the intended vegetation growth and harvesting (Section 2.5, Agronomist Evaluation).

First, the P adsorption maxima were determined using a series solution with P concentrations ranging from 0 to 320 mg/L. The concentrations used were much higher than that of the actual irrigation wastewater, which is targeted to be 20 mg/L. The P adsorption will not reach the maximum determined from higher concentrations if the actual irrigation water has lower P concentration. In addition, the calculation of total P assimilation assumed a uniform P distribution in the top 6 foot of soils. Experimental evidence (Saldat et al., 2007; Szogi et al., 2010) shows that P distribution is not uniform in soil profiles. The P concentration is generally much higher in the surface soil than in the lower part of the soil even after many years of manure or fertilizer applications.

Second, the P removal amount by plants from NCSU RYE estimation (<http://yields.soil.ncsu.edu/index.php#county>) is expressed in lbs. P₂O₅ per acre, but the

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Agronomist Evaluation mistakenly used it as lbs. P per acre. It over estimated plant P removal by 2.29 times.

The plant available nitrogen from the wastewater is underestimated. The plant available nitrogen (PAN) was calculated based on the total amount of N in the wastewater, and the mineralization rate of organic N and volatilization rate of ammonia. A 20% mineralization of organic nitrogen was used to derive the PAN. This mineralization rate is lower than that used for determining plant available N from animal wastes in most states. The EPA Process Design Manual for Land Treatment of Municipal Wastewater Effluents (EPA/625/R-06/016) recommends 30%, 10% and 5% mineralization rate of anaerobically digested wastewater for the first, second and third year. Therefore, the mineralization rate should be 45% if the wastewater is used in consecutive years.

Table 1 of the Agronomist Evaluation contains a mistake. It shows the area of planned vegetation, but the second and third columns are mislabeled. Loblolly pine forest should be 109 acres, not 240 acres as shown in the table, according to other documentation (Soil Scientist Evaluation, and Operation and Maintenance Plan).

See References below at the end of the letter.

Request for Consideration of Concerns on Impacts on the Aquifer from which Sanderson Farms will obtain its Processing Water:

Sanderson Farms will require 1.4 MGD for its processing facility to be obtained from the deep aquifer. We are concerned that this huge demand will exacerbate the impacts on the aquifer consistent with other large quantity consumers in the area. Therefore, we ask the State to ensure that there will be no impacts on water quantity associated with the aquifer from which Sanderson proposes to obtain its water supply.

Request for Consideration of Past Practices as a Predictor of Future Practices:

In other states, many of Sanderson Farms' slaughterhouses are permitted to discharge wastewater directly to surface water. Where wastewater is discharged directly to surface waters, the federal Clean Water Act imposes strict requirements to protect water quality. These requirements are not included permits for the land application of wastewater, which are drawn to comply with less protective state law. According to EPA, Sanderson Farms is in violation of four out of seven permits authorizing wastewater discharge into surface waters. Violations have occurred for nutrients and fecal coliform bacteria.

Triannual groundwater monitoring reports pertaining to the Sanderson Farms' facility in Kinston, NC, show negative impacts to groundwater beneath the spray fields, including increases in ammonia concentration at some stations, and notably low pH at all monitoring locations.

The company has repeatedly failed to treat the wastewater discharged from its slaughterhouses in other states to the level required to protect receiving waters and has repeatedly violated water quality permits at many of its facilities. Past actions are reliable predictors of future action and Sanderson Farms has proven either unable or unwilling to conduct business without threatening water quality within the community in which it operates.

In summary, Sanderson Farms' slaughterhouse threatens Robeson County's water quality. Research shows that poultry processing operations and chicken farm facilities can increase risk to water quality. High runoff of Nitrogen and Phosphorus can occur on even well managed fields. Neither the State nor Sanderson Farms has any measures in place to

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protect groundwater, surface water or drinking water sources for the residents of Robeson County and the residents in other communities impacted by Sanderson Farms' ancillary activities by its contracted growers.

The Town, the County, and the State have failed to evaluate and address the full range of environmental impacts associated with the proposed Sanderson Farms' slaughterhouse and its ancillary activities. The impacted communities in North Carolina need assurances that water quality will be protected and their use and enjoyment of these water resources will be protected. The Lumber River serves as a drinking water source for tens of thousands of residents downstream. Surface water pollution from land application of processing wastewater and chicken litter from contracted growers operating in the basin will impact this drinking water source. The Lumber River is an important and special waterway, designated a state Natural and Scenic River and an 81 mile section designated a National Wild and Scenic River. Proposed waste management practices for the slaughterhouse and its contracted growers will threaten this state and nationally recognized waterway.

For these and other reasons, we request that the draft permit be denied.

Thank you for your consideration of these comments in your deliberations regarding the draft permit.

Sincerely,



Christine Ellis
Deputy Director / River Advocate
Winyah Rivers Foundation

References:

1. Davis, R., H. Zhang, J.L. Schroder, J.J. Wang, and M. E. Payton. 2005. Soil characteristics and phosphorus level effects on phosphorus loss in runoff. *J. Environ. Qual.* 34:1640-1650.
2. DeLaune, P.B., P.A. Moore, Jr., D.K. Carman, A.N. Sharpley, B.E. Haggard, and T.C. Daniel. 2004. Development of a phosphorus index for pastures fertilized with poultry litter—Factors affecting phosphorus runoff. *J. Environ. Qual.* 33:2183–2191.
3. Kleinman, P.J.A., A.N. Sharpley, T.L. Veith, R.O. Maguire, and P.A. Vadas. 2004. Evaluation of phosphorus transport in surface runoff from packed boxes. *J. Environ. Qual.* 33:1413–1423.
4. Soldat, D.J., and A.M. Petrovic. 2007. Soil phosphorus levels and stratification as affected by fertilizer and compost applications. Online. *Applied Turfgrass Science* doi:10.1094/ATS- 2007-0815-01-RS.
5. Szogi, A., P. Bauer, and M. Vanotti. 2010. Distribution of phosphorus in an Ultisol fertilized with recovered manure phosphates. *Proceedings of the World Congress of Soil Science, Brisbane, Australia.*

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6. Zhang, H., J.L. Schroder, R. Davis, M. E. Payton, J.J. Wang, W.E. Thomason, Y. Tang, and W.R. Raun. 2005. Phosphorous loss in runoff from long-term continuous wheat fertility trials. Soil Sci. Soc. Am. J. 70:163-171.

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Thornburg, Nathaniel

From: Haywood Phthisic <exec.director@lnba.net>
Sent: Friday, October 02, 2015 2:29 PM
To: Thornburg, Nathaniel
Cc: Zimmerman, Jay; Reeder, Tom; Dan McLawhorn; Barry Parks;
Donald.Smith@TownofCary.org; James Warren; Glenn Dunn; Blakely Hildebrand;
larry.baldwin56@gmail.com; Will Hendrick
Subject: LNBA/NRCA Comments on Sanderson Farms Draft Permit, WQ0037772, St. Pauls, N.C.
Attachments: Sanderson Farms Draft Permit Comment Letter 100215.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Good afternoon Nathaniel,

On behalf of the Lower Neuse Basin Asso. and Neuse River Compliance Asso. we are submitting comments on the Sanderson Farms Draft Permit, WQ0037772, St. Pauls, N.C. Facility. Unless the Division requires the original documents please accept our comments submitted electronically. If you require the original documents please let me know.

If you have any questions please feel free to contact me.

Thank you,

Haywood

Haywood M. Phthisic, III
Executive Director
LNBA/NRCA
P.O. Box 1410
Clayton, N.C. 27528
919.796.8049
<http://lnba.net>

Lower Neuse Basin Association®
Neuse River Compliance Association®

Post Office Box 1410
Clayton, North Carolina 27528 - 1410

October 02, 2015

Mr. Jay Zimmerman, Director
Division of Water Resources
Department of Environmental Quality
1617 Mail Service Center
Raleigh, N.C. 27699 – 1617

Dear Mr. Zimmerman,

This comment regarding the non-discharging waste treatment permit for the St. Paul's facility is submitted on behalf of the Neuse River Compliance Association ("NRCA") and Lower Neuse Basin Association ("LNBA"). When this facility was proposed for Cumberland County both the NRCA and LNBA communicated our concerns to Secretary John Skvarla and Secretary van der Vaart by means of an email to Secretary Skvarla dated September 16, 2014 and a subsequent letter to Secretary Skvarla and Secretary van der Vaart dated January 14, 2015. Copies are enclosed with this comment. In sum, our concern then and now is that an environmental impact statement (EIS) should be prepared for the facility in accord with the North Carolina Environmental Policy Act (NCEPA). Our primary concern is not the direct impacts of the processing facility itself, but rather the reasonably predictable secondary and cumulative impacts from the many poultry growers that the facility will spawn, in particular the nutrients from poultry litter. This concerned us because Sanderson officials stated that the growers would be primarily in the Neuse River Basin. We never received a written response to either letter, but did receive a telephone response from then Deputy Secretary van der Vaart stating that the position of DENR (now DEQ) is that the NCEPA was not applicable and the secondary and cumulative impacts of the facility could be adequately considered through the waste treatment system permitting procedure.

While we disagreed with Secretary van der Vaart's response, our concerns were abated when we learned the proposed facility's location had shifted to St. Paul's. However, we have recently read that Bob Billingsley of Sanderson Farms has stated at a public hearing that most of the growers will still be located in the Neuse Basin. To say the least, this has renewed our concern.

Our review of the record for this permit indicates that inadequate attention and analysis has been given in the permitting process to the reasonably predictable secondary and cumulative impacts that will be caused by the inevitable increase in growers, particularly the impacts of phosphorus and nitrogen in the nutrient sensitive Neuse River Basin. We are aware of recent amendments to the NCEPA and do not think they relieve DEQ of the obligation to require a thorough EIS. Furthermore, DEQ should not have to be convinced that an EIS is legally required. The Secretary of DEQ has the discretion to require an EIS, and as the agency charged with protecting the environment it should do so. DEQ's handling of this matter sadly seems to illustrate its new credo, announced publicly several times, that the regulated community is DEQ's client. This is simply wrong.

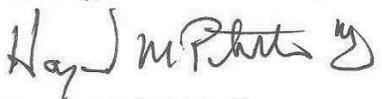
Mr. Jay Zimmerman
Page 2
October 02, 2015

As explained in the enclosed email and letter, the members of the NRCA and LNBA have spent nearly \$400,000,000 to improvement the nitrogen removal capabilities of their waste water treatment facilities .We cannot passively allow DEQ to allow other sources of nutrient pollution without thorough study and analysis. We therefore request that the non-discharge waste treatment system permit not be issued until an EIS or a similar document with a thorough analysis of the reasonably predictable secondary and cumulative impacts from poultry growers has been prepared.

The Appendix includes the following documents:

- Communications with departmental secretaries (pages 1 - 4).
- Division of Water Resources total nitrogen and total phosphorous loadings report on the Neuse Basin specifically Fort Barnwell upstream of the Neuse Estuary (pages 5 – 15).
- Graphs illustrating the increasing annual nitrogen and phosphorous concentrations at Fort Barnwell (based on the DWR report, pages 16 – 17)).
- NRCA Resolution (2011) opposing Sanderson Farms facility in the Neuse Basin (pages 18 – 26).
- Draft Permit Public Hearing news article stating the intention to place chicken growers in the Neuse Basin (pages 27 – 29).

Sincerely,



Haywood M. Phthisic, III,
Executive Director

cc: LNBA and NRCA Boards



H. Glenn T. Dunn
Partner
D: 919.783.2842
F: 919.783.1075
gdunn@poynerspruill.com

January 14, 2015

John Skvarla, Secretary
North Carolina Department of Commerce
301 North Wilmington Street
Raleigh NC 27601-1058

Donald van der Vaart, Secretary
North Carolina Department of Energy
and Natural Resources
1601 Mail Service Center
Raleigh NC 27699-1601

Re: Sanderson Farms

Dear Secretary Skvarla and Secretary van der Vaart:

First, I want to congratulate each of you on your new positions and trust you are both getting settled in. I am writing this letter on behalf of the Neuse River Compliance Association ("NRCA") and Lower Neuse Basin Association ("LNBA"). I'm suspect both of you remember that I sent the attached email to DENR several months ago regarding Sanderson Farms, and I hope you will forgive the repetition but the topic is very important to the NRCA and LNBA and we think that it merits further attention in view of your new positions.

I'll briefly recap our former request and DENR's response. John, I emailed you and requested that DENR meet with NRCA representatives to discuss our opinion that an Environmental Impact Statement ("EIS") be prepared for the proposed Sanderson processing facility in Cumberland County and particularly for the growers that will support it since Sanderson is representing the growers will primarily be located in the Neuse River Basin. Don, you responded by phone call to me and said, in effect, that the NPDES permitting process would allow for review of impacts similar to an EIS and that DENR does not yet have a proposal for which it could begin to analyze impacts. I suggested that our goal is that the impacts of the project, including cumulative and secondary impacts of growers, be analyzed before commitments are made regarding incentives and/or other governmental approvals or benefits. Your response was that DENR was not yet involved and that the matter was in the hands of the Department of Commerce.

John Skvarla, Secretary
North Carolina Department of Commerce
Donald van der Vaart, Secretary
North Carolina Department of Energy
and Natural Resources
January 14, 2015
Page 2

Poyner Spruill^{LLP}

I understand your position that it was premature for DENR to get involved at the time and that the matter is in the Department of Commerce. As I suggested at the time we would like the Department of Commerce to be a part of any discussion regarding location of the processing facility and growers. Now that the two of you lead both Departments, we are renewing our request to meet and discuss the need for an EIS to thoroughly study the full range of impacts and we would welcome Sanderson's participation. We now understand that Cumberland County Commissioners may not support the proposed location in Cumberland County, nevertheless we still want to meet with you to discuss the issue since it is relevant to any project that would increase the number of growers in the Neuse Basin.

I want to repeat that the NRCA and LNBA are not taking a position opposing a facility at this time. But our experience tells us it will benefit all involved, including Sanderson, if the full range of impacts are analyzed early in the siting process. Surely those who will be impacted are right to expect such information and analysis.

NRCA members have spent more than \$300 million to reduce by over 70% the nitrogen discharged from their waste treatment facilities in the Neuse Basin. Despite the reductions from point sources (wastewater treatment facilities) since the implementation of the Neuse Management Strategy, research by the Division of Water Resources and the University of North Carolina's Marine Science Institute indicates little or no net long term nutrient loading reduction to the Neuse Estuary. In fact the Estuary has returned to the nutrient loading levels prior to the costly improvements. Analysis of nitrogen monitoring results in the Neuse River indicates that non-point sources, including new animal operations, are primarily responsible for increases in nitrogen in the Neuse Basin. Currently, there are no effective means to directly control those sources. For that reason, no processing facility should be permitted if it will result in a significant increase in the number of growers in the Neuse Basin unless it can be shown that through improved waste management methods those growers' cumulative impacts will not delay achievement of nutrient reduction goals.

A proposed facility of this type is unusual, if not unique, in that the growers necessary to support it are likely to have much greater environmental impacts than the processing facility itself. An EIS is the only means to thoroughly analyze these potential cumulative impacts, which are very important because growers apparently are to be concentrated primarily in the Neuse Basin to be close to Sanderson's feed mill in Kinston. It is not certain that a facility would require a NPDES permit, and if it does the requirements to consider cumulative impacts are not so well defined as for an EIS. An EIS is informational, not regulatory, but the information it provides is useful in applicable permitting procedures for which DENR is responsible. If the

John Skvarla, Secretary
North Carolina Department of Commerce
Donald van der Vaart, Secretary
North Carolina Department of Energy
and Natural Resources
January 14, 2015
Page 3

Poyner Spruill^{LLP}

impacts are acceptable the project can move ahead through permitting. If the impacts appear unacceptable, it is to Sanderson's benefit to find out early and to consider mitigation proposals or another location.

We think this approach can benefit Sanderson by giving an early analysis of any regulatory issues and how to deal with them. Avoiding early impact analysis will surely increase distrust and resistance to the project, thus increasing the opposition through political and legal processes that will ultimately require analysis of the same regulatory impacts and issues.

The NRCA and LNBA have accumulated much monitoring information and analysis regarding the causes of nutrient problems in the Neuse River and estuary. We would like to meet to discuss this information with you and discuss the status of the Sanderson siting proposal and the need for an EIS.

Sincerely,



Glenn Dunn

HGD:kks
Enclosure

cc: Daniel McLawhorn, President
Barry Parks, Vice President
Donald Smith, Treasurer
Haywood Phthisic, Executive Director

Dunn, Glenn

From: Dunn, Glenn
Sent: September 24, 2014 9:38 AM
To: John Skvarla (j.skvarla@ncdenr.gov)
Subject: FW: The Neuse Basin and Sanderson Farms

John ,since I haven't heard from you , I thought it best to resend this email . I know you have more than any one person can do , but hope you or someone you choose from DENR can meet with us in the near future. It's important to the LNBA and NRCA that a hard look be given to the broad potential impacts of another Sanderson Farms processing facility and their possible effects on the already nutrient sensitive Neuse River , particularly in view of how much money the members have spent to reduce their nutrient discharges. I'd appreciate your responding if only briefly to let me know you got this email . As to a meeting , we will be very flexible to work out a convenient time .

From: Dunn, Glenn
Sent: September 16, 2014 1:06 PM
To: John Skvarla (j.skvarla@ncdenr.gov)
Cc: 'McLawhorn, Dan'; 'Haywood Phthisic'
Subject: The Neuse Basin and Sanderson Farms

John , I've been asked by the LNBA and NRCA to set up a meeting with you and/or whomever you designate to discuss Sanderson Farm's proposal for a chicken processing facility in Cumberland County . Our concern is primarily the contribution to nutrients in the Neuse basin that can result from the increase in growers that such a facility will cause. Sanderson has been indicating that most growers will be within 30 -50 miles from the feed facility in Kinston , which will put most of them in the Neuse Basin rather than the Cape Fear Basin . The LNBA and NRCA membership are not now taking a position in opposition to the facility but are of the opinion that a full environmental impact statement should be done to provide a comprehensive analysis of the potential impacts of the facility itself and of the indirect and cumulative impacts that could result particularly from the growers . It is for precisely this type of project that we think an EIS is critical because it gives a comprehensive study of such impacts that generally cannot be gotten through individual regulatory permits. It appears DENR will handle one or more of the permits the facility requires and will represent the overall environmental perspective, and we know of your support for the work the LNBA and NRCA are doing in the Neuse Basin , so we thought it best to bring this matter up with you . If you think someone from the Department of Commerce should be at the meeting , we would certainly welcome them and think they might be particularly helpful in better understanding the project. President Dan McLawhorn , Executive Director Haywood Phthisic , and I would like to meet with you and whomever else you think should be involved to discuss the project . Dan is on vacation but will be back in about two weeks , so we are hoping to schedule a meeting during the week of September 29 –October 3 , if this will work for you.

I also want to tell you that the 20th anniversary celebration for the LNBA was a really nice affair and you and your staff were good to take the time to arrange and attend it . We too often just plug along from one problem to the next and don't take time to celebrate the accomplishments.

I look forward to hearing from you regarding a meeting .Thanks for your consideration.

H. Glenn T. Dunn | Partner

Poyner Spruill^{LLP}

ATTORNEYS AT LAW

301 Fayetteville Street, Suite 1900, Raleigh, NC 27601

Total Nitrogen Loading Estimates at Ambient Stations J1890000, J8690000 and J7850000
(Falls Lake Dam, Trent River near Trenton, and Fort Barnwell)

This document provides total nitrogen (TN) and total phosphorus (TP) annual load estimates using data collected at the Falls Lake Dam, Trent River, and Fort Barnwell ambient monitoring stations for the 1990-2013 time period using the USGS LOADEST method.

Data Preparation

- The 2013 October through December flow values used at each USGS station are provisional and are subject to revision by USGS.
- Two or more sampling events per day were averaged to have one value per day.
- Any non-detect values were changed to ½ the practical quantitation limit of 0.01 mg/L for NO_x, TKN, and phosphorus. Data availability is shown in Table 1.

Reporting

The USGS LOADEST estimates monthly loading include upper (UCL) and lower (LCL) 95% confidence limits. The annual loading is computed from the daily loads estimated by LOADEST and reported in pounds per year. Tables 2 through 7 show the annual estimated loadings and flow. Figures 1 through 6 display the LOADEST load estimates including the UCL and LCL loading estimates.

It should be noted that these are only estimates and all the methods used for load estimation have associated errors in their estimates; therefore, caution should be exercised when interpreting the results. All the results should be interpreted in light of the limitations of the approaches and the existing data.

Table 1 - Ambient Monitoring Data Availability by Year

Year	Number of Months with Data								
	J1890000 - Falls Lake Dam			J8690000 Trent River near Trenton			J7850000 Fort Barnwell		
	TKN	NO _x	P	TKN	NO _x	P	TKN	NO _x	P
1990	11	11	11	12	12	12	12	12	12
1991	9	9	9	10	10	10	10	10	10
1992	11	11	11	12	12	12	12	12	12
1993	11	11	11	11	11	11	11	11	11
1994	10	10	10	11	11	11	11	11	11
1995	11	11	11	12	12	12	12	12	12
1996	11	11	11	12	12	12	12	12	12
1997	12	12	12	12	12	12	12	12	12
1998	12	12	12	12	12	12	12	12	12
1999	12	12	12	12	12	12	12	12	12
2000	12	12	12	7	7	7	12	12	12
2001	4	4	5	9	9	9	12	12	12
2002	0	0	0	12	12	12	12	12	12
2003	7	7	7	12	12	12	12	12	12
2004	12	12	12	12	12	12	12	12	12
2005	12	12	12	11	11	11	12	12	12
2006	12	12	12	12	12	12	12	12	12
2007	10	10	10	12	12	12	12	12	12
2008	10	10	10	12	12	12	12	12	12
2009	8	8	8	12	12	12	12	12	12
2010	4	4	4	12	12	12	12	12	12
2011	4	4	4	12	12	12	12	12	12
2012	8	8	8	12	12	12	12	12	12
2013	11	11	11	12	12	12	12	12	12

NC DWR Modeling and Assessment Branch 10/22/2014

Table 2 - Annual Total Nitrogen Estimates for Station J1890000 (Falls Lake Dam)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	960,842	815,210	1,124,822	21,521,462,400
1991	631,455	538,654	735,562	13,990,406,400
1992	485,011	412,904	566,211	11,521,353,600
1993	1,077,199	924,103	1,248,632	25,092,720,000
1994	569,259	488,409	659,617	13,557,369,600
1995	815,555	695,378	950,665	21,164,284,800
1996	1,287,302	1,099,491	1,498,797	33,627,484,800
1997	662,450	571,854	763,349	16,400,448,000
1998	1,319,213	1,106,361	1,561,321	31,372,617,600
1999	937,481	787,432	1,107,836	25,060,924,800
2000	666,712	576,052	767,601	16,855,776,000
2001	426,036	367,698	490,947	11,322,115,200
2002	507,966	440,641	582,767	12,248,928,000
2003	1,401,263	1,194,476	1,633,682	35,764,675,200
2004	511,619	443,007	587,909	12,450,844,800
2005	496,154	431,574	567,673	11,285,308,800
2006	493,217	416,569	580,071	11,993,702,400
2007	572,858	499,759	653,759	12,329,107,200
2008	435,503	374,319	503,812	10,174,723,200
2009	1,081,397	930,910	1,249,301	21,457,699,200
2010	872,667	745,444	1,015,444	16,702,329,600
2011	198,364	173,503	225,769	4,298,832,000
2012	211,539	182,970	243,281	4,381,776,000
2013	952,666	794,083	1,133,959	18,258,825,600

NC DWR Modeling and Assessment Branch 10/22/2014

Table 3 - Annual Total Phosphorus Estimates for Station J1890000 (Falls Lake Dam)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	68,354	48,281	94,064	21,521,462,400
1991	43,837	30,747	60,754	13,990,406,400
1992	33,032	22,404	47,110	11,521,353,600
1993	84,880	60,723	115,518	25,092,720,000
1994	44,261	30,579	62,095	13,557,369,600
1995	60,386	40,772	86,300	21,164,284,800
1996	95,467	66,249	133,328	33,627,484,800
1997	51,633	35,715	72,325	16,400,448,000
1998	111,638	77,440	155,941	31,372,617,600
1999	68,091	45,055	98,960	25,060,924,800
2000	51,349	35,720	71,619	16,855,776,000
2001	34,049	23,939	47,078	11,322,115,200
2002	32,902	23,443	44,957	12,248,928,000
2003	112,542	78,100	157,186	35,764,675,200
2004	33,709	23,788	46,463	12,450,844,800
2005	34,589	24,542	47,447	11,285,308,800
2006	31,495	20,798	45,880	11,993,702,400
2007	37,675	26,976	51,260	12,329,107,200
2008	25,552	17,817	35,572	10,174,723,200
2009	65,671	46,088	90,878	21,457,699,200
2010	53,808	37,172	75,482	16,702,329,600
2011	10,385	7,774	13,595	4,298,832,000
2012	10,849	8,051	14,309	4,381,776,000
2013	52,922	36,341	74,681	18,258,825,600

NC DWR Modeling and Assessment Branch 10/22/2014

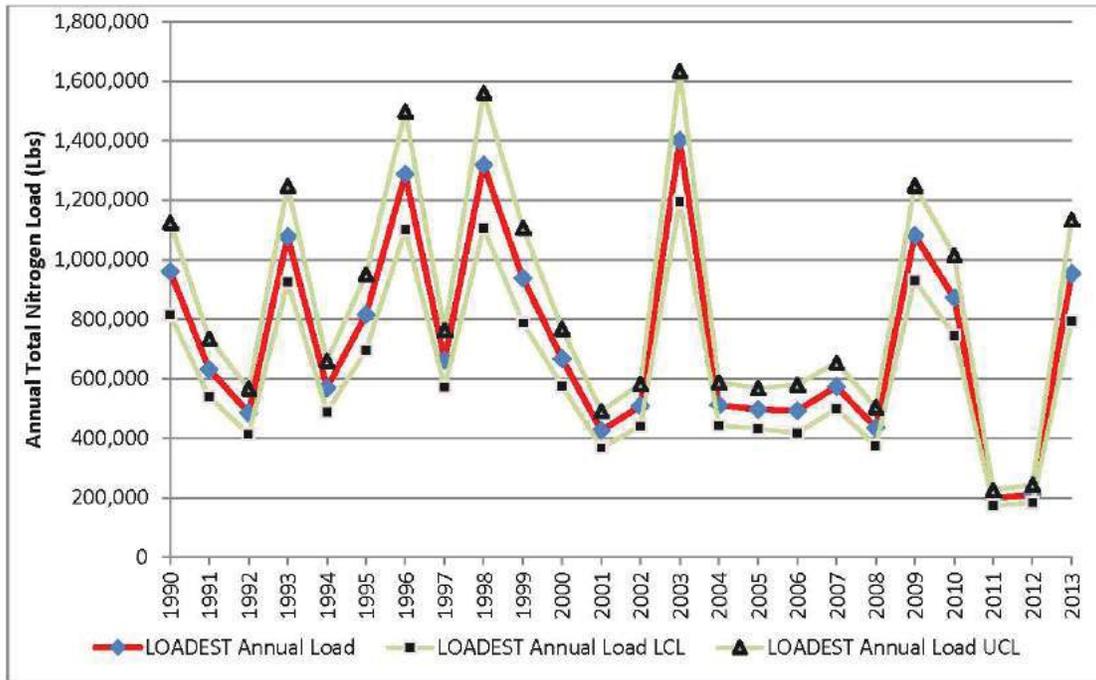


Figure 1 – Annual Total Nitrogen Loading at J1890000 (Falls Lake Dam)

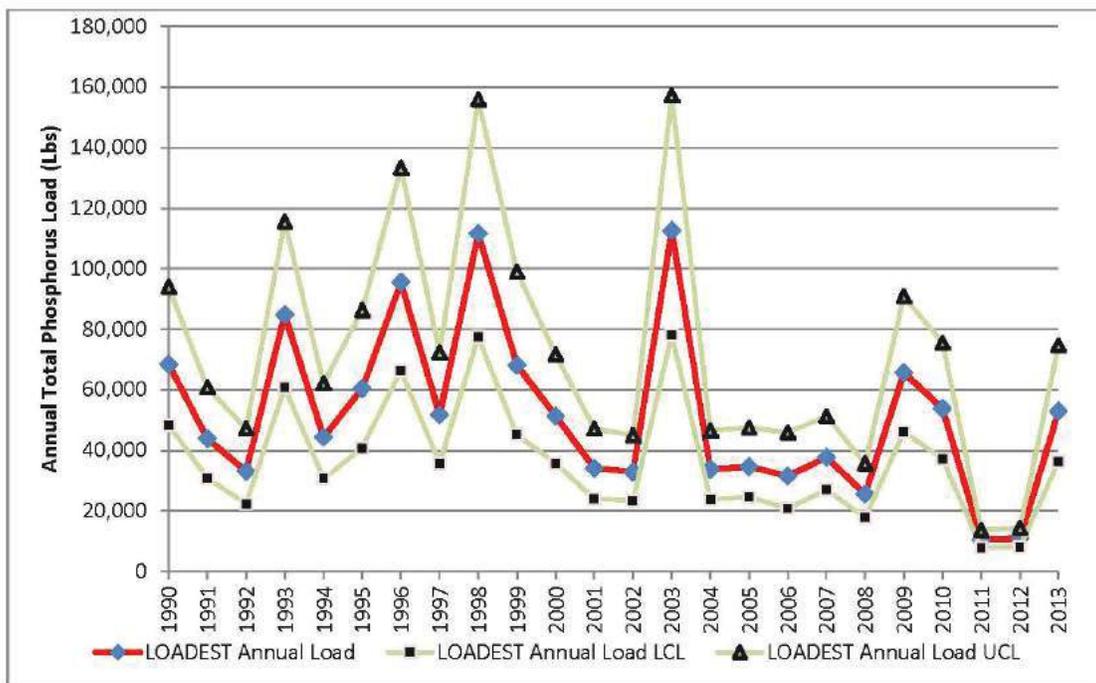


Figure 2 - Annual Total Phosphorus Loading at J1890000 (Falls Lake Dam)

NC DWR Modeling and Assessment Branch 10/22/2014

Table 4 - Annual Total Nitrogen Estimates for Station J8690000 (Trent River near Trenton)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	242,682	195,918	297,393	3,731,469,120
1991	386,096	315,995	467,269	5,767,459,200
1992	401,333	318,661	499,889	6,449,379,840
1993	303,153	253,376	359,949	4,970,066,688
1994	283,455	233,397	341,272	4,640,181,120
1995	379,371	315,362	452,462	6,012,066,240
1996	573,650	472,127	690,996	8,908,012,800
1997	226,407	191,727	265,586	3,621,983,040
1998	437,418	359,842	527,427	7,079,616,000
1999	680,981	540,357	848,683	11,006,029,440
2000	414,574	341,071	499,543	6,191,017,920
2001	180,544	151,860	212,980	2,604,450,240
2002	184,046	155,170	216,739	2,736,122,112
2003	832,744	682,177	1,007,101	11,527,228,800
2004	502,288	412,453	606,244	6,686,668,800
2005	466,156	378,963	568,373	6,185,220,480
2006	782,526	626,014	967,518	10,334,304,000
2007	193,125	162,668	227,625	2,491,253,280
2008	161,243	133,854	192,647	1,962,972,576
2009	358,268	300,112	424,364	4,162,000,320
2010	508,513	404,528	633,849	5,848,355,520
2011	362,201	295,339	440,375	3,689,207,424
2012	694,454	564,582	845,623	6,439,633,920
2013	515,353	421,080	624,545	4,668,978,240

NC DWR Modeling and Assessment Branch 10/22/2014

Table 5 - Annual Total Phosphorus Estimates for Station J8690000 (Trent River near Trenton)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	18,784	11,883	28,320	3,731,469,120
1991	37,160	24,259	54,608	5,767,459,200
1992	42,262	25,386	66,642	6,449,379,840
1993	24,328	16,602	34,491	4,970,066,688
1994	26,722	17,463	39,358	4,640,181,120
1995	38,591	25,995	55,264	6,012,066,240
1996	70,967	46,267	104,484	8,908,012,800
1997	21,575	15,042	30,043	3,621,983,040
1998	43,533	28,211	64,701	7,079,616,000
1999	91,360	54,837	144,329	11,006,029,440
2000	47,084	30,822	69,189	6,191,017,920
2001	18,694	12,869	26,281	2,604,450,240
2002	15,744	10,933	21,994	2,736,122,112
2003	92,236	60,215	135,586	11,527,228,800
2004	53,948	35,172	79,493	6,686,668,800
2005	45,435	28,586	69,151	6,185,220,480
2006	78,976	48,455	122,302	10,334,304,000
2007	12,852	8,889	18,021	2,491,253,280
2008	10,140	6,799	14,584	1,962,972,576
2009	23,009	15,761	32,480	4,162,000,320
2010	32,087	19,133	51,509	5,848,355,520
2011	22,321	14,250	33,647	3,689,207,424
2012	42,743	27,504	63,542	6,439,633,920
2013	24,851	16,155	36,620	4,668,978,240

NC DWR Modeling and Assessment Branch 10/22/2014

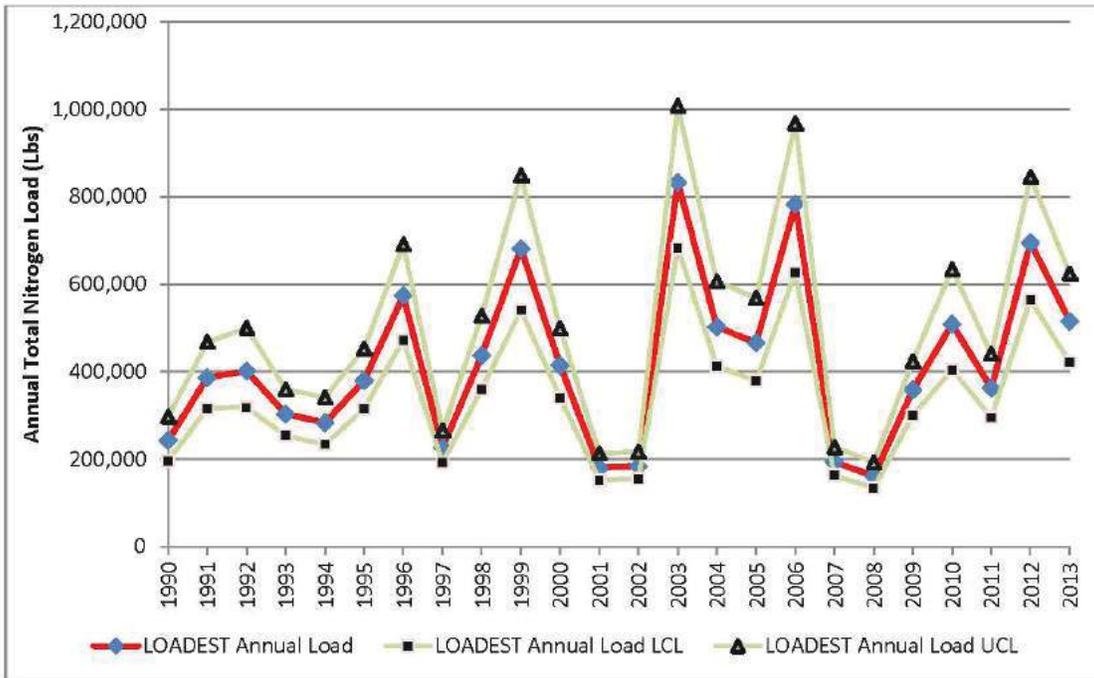


Figure 3 - Total Nitrogen Loading at Station J8690000 (Trent River near Trenton)

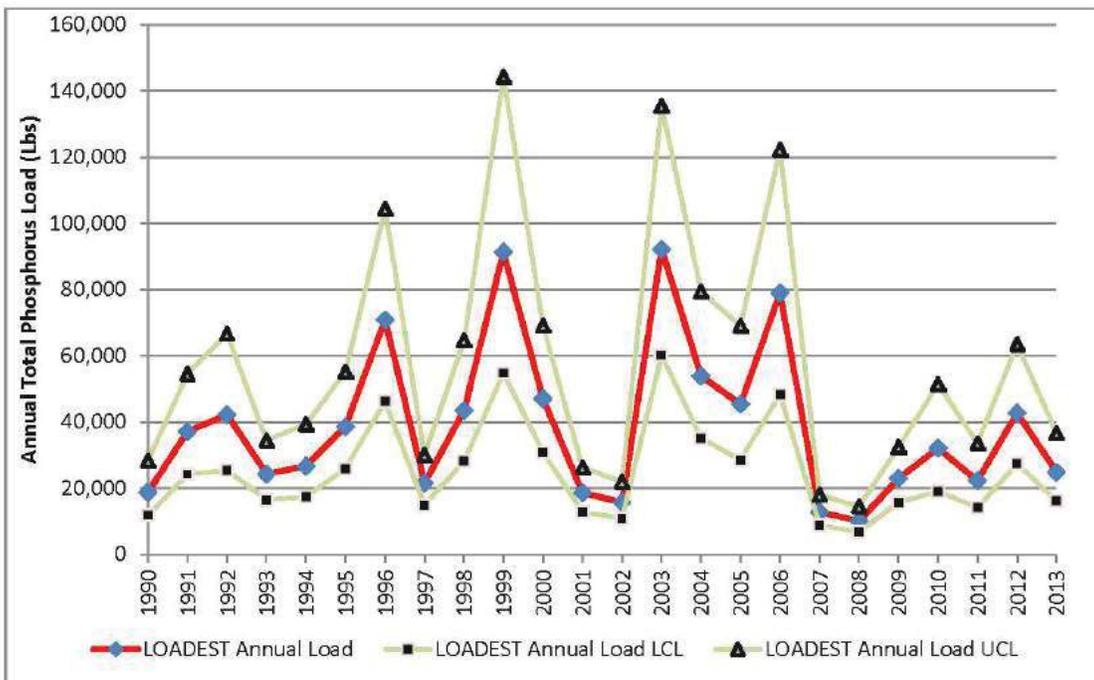


Figure 4 - Total Phosphorus Loading at Station J8690000 (Trent River near Trenton)

NC DWR Modeling and Assessment Branch 10/22/2014

Table 6 - Annual Total Nitrogen Estimates for Station J7850000 (Ft. Barnwell)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	10,990,714	9,574,438	12,556,603	109,293,742,492
1991	9,208,969	8,068,519	10,464,930	96,064,718,540
1992	10,184,030	8,948,943	11,541,203	116,199,371,863
1993	9,505,424	8,412,724	10,699,894	125,507,649,942
1994	6,560,178	5,800,428	7,390,993	85,094,577,745
1995	10,614,846	9,381,240	11,964,700	153,063,973,930
1996	12,216,198	10,844,680	13,712,057	188,006,763,454
1997	7,001,472	6,228,541	7,843,295	99,294,768,000
1998	10,218,356	9,078,195	11,461,414	181,320,076,800
1999	10,477,935	9,238,396	11,837,498	219,198,268,800
2000	7,395,025	6,559,388	8,307,162	116,339,760,000
2001	4,919,248	4,366,499	5,522,381	77,718,096,000
2002	5,242,957	4,640,240	5,901,644	81,622,684,800
2003	11,605,510	10,303,481	13,025,459	205,202,592,000
2004	7,256,240	6,443,222	8,142,841	113,779,987,200
2005	5,956,209	5,285,222	6,688,233	91,959,840,000
2006	7,645,278	6,755,344	8,619,129	126,007,660,800
2007	4,713,347	4,178,941	5,297,693	72,707,500,800
2008	5,751,119	5,083,203	6,482,205	83,691,446,400
2009	7,227,970	6,408,215	8,123,088	107,188,185,600
2010	7,845,458	6,906,325	8,876,592	120,751,344,000
2011	4,758,324	4,175,081	5,401,074	62,639,654,400
2012	5,883,871	5,177,965	6,658,900	72,758,044,800
2013	10,234,261	9,016,367	11,569,758	132,215,673,600

NC DWR Modeling and Assessment Branch 10/22/2014

Table 7 - Annual Total Phosphorus Estimates for Station J7850000 (Ft. Barnwell)

Year	LOADEST Annual Load	LOADEST Annual Load LCL	LOADEST Annual Load UCL	USGS Flow (cubic feet per year)
1990	1,394,065	1,138,769	1,689,391	109,293,742,492
1991	1,262,294	1,038,745	1,519,656	96,064,718,540
1992	1,356,295	1,117,321	1,631,297	116,199,371,863
1993	1,118,299	935,988	1,325,436	125,507,649,942
1994	755,542	630,723	897,900	85,094,577,745
1995	1,505,696	1,254,638	1,792,191	153,063,973,930
1996	1,724,401	1,444,476	2,042,607	188,006,763,454
1997	816,541	687,393	962,635	99,294,768,000
1998	1,245,079	1,047,402	1,468,979	181,320,076,800
1999	1,581,141	1,306,089	1,897,650	219,198,268,800
2000	936,899	783,904	1,111,006	116,339,760,000
2001	653,882	548,304	773,957	77,718,096,000
2002	568,152	475,134	673,937	81,622,684,800
2003	1,590,585	1,335,279	1,880,574	205,202,592,000
2004	943,374	791,371	1,115,846	113,779,987,200
2005	674,855	565,463	799,076	91,959,840,000
2006	1,003,121	832,494	1,198,263	126,007,660,800
2007	483,167	404,606	572,545	72,707,500,800
2008	650,803	542,729	774,017	83,691,446,400
2009	785,660	658,162	930,759	107,188,185,600
2010	870,134	718,106	1,045,164	120,751,344,000
2011	569,303	465,053	690,530	62,639,654,400
2012	710,322	588,150	850,332	72,758,044,800
2013	1,389,158	1,153,760	1,658,456	132,215,673,600

NC DWR Modeling and Assessment Branch 10/22/2014

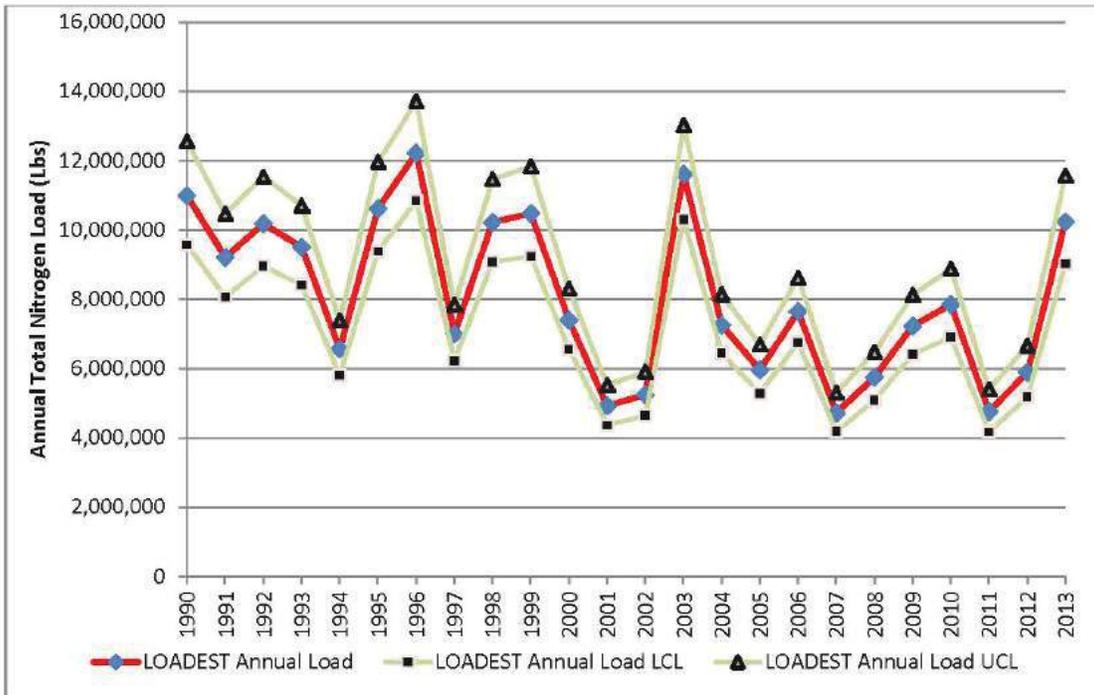


Figure 5 - Total Nitrogen Loading at Station J7850000 (Ft. Barnwell)

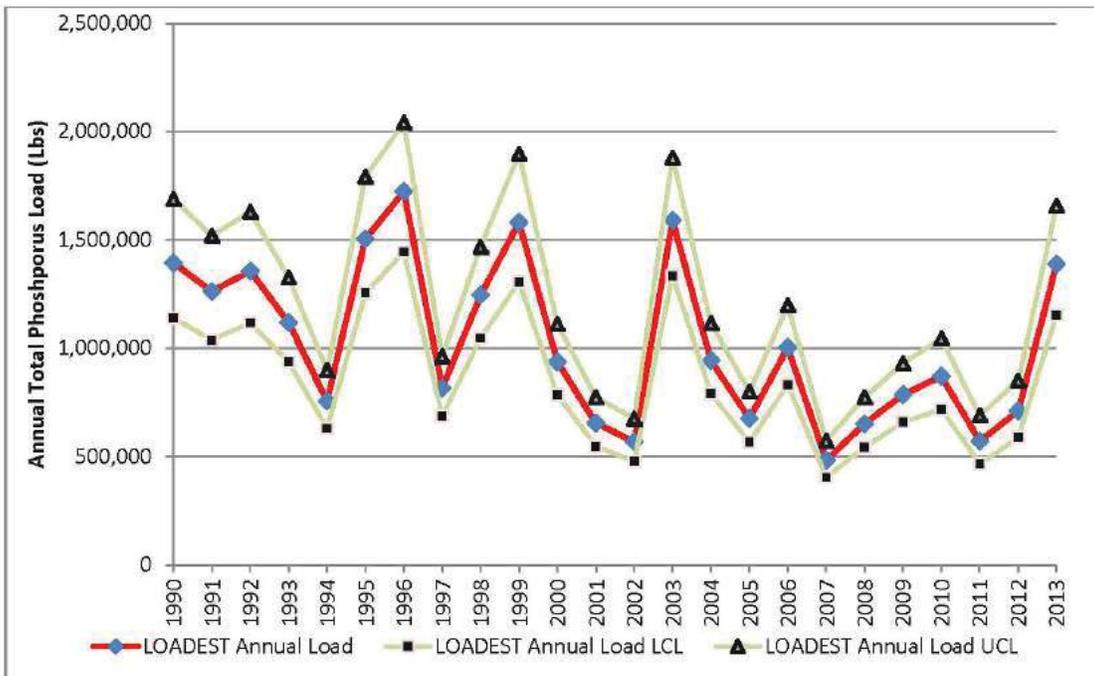
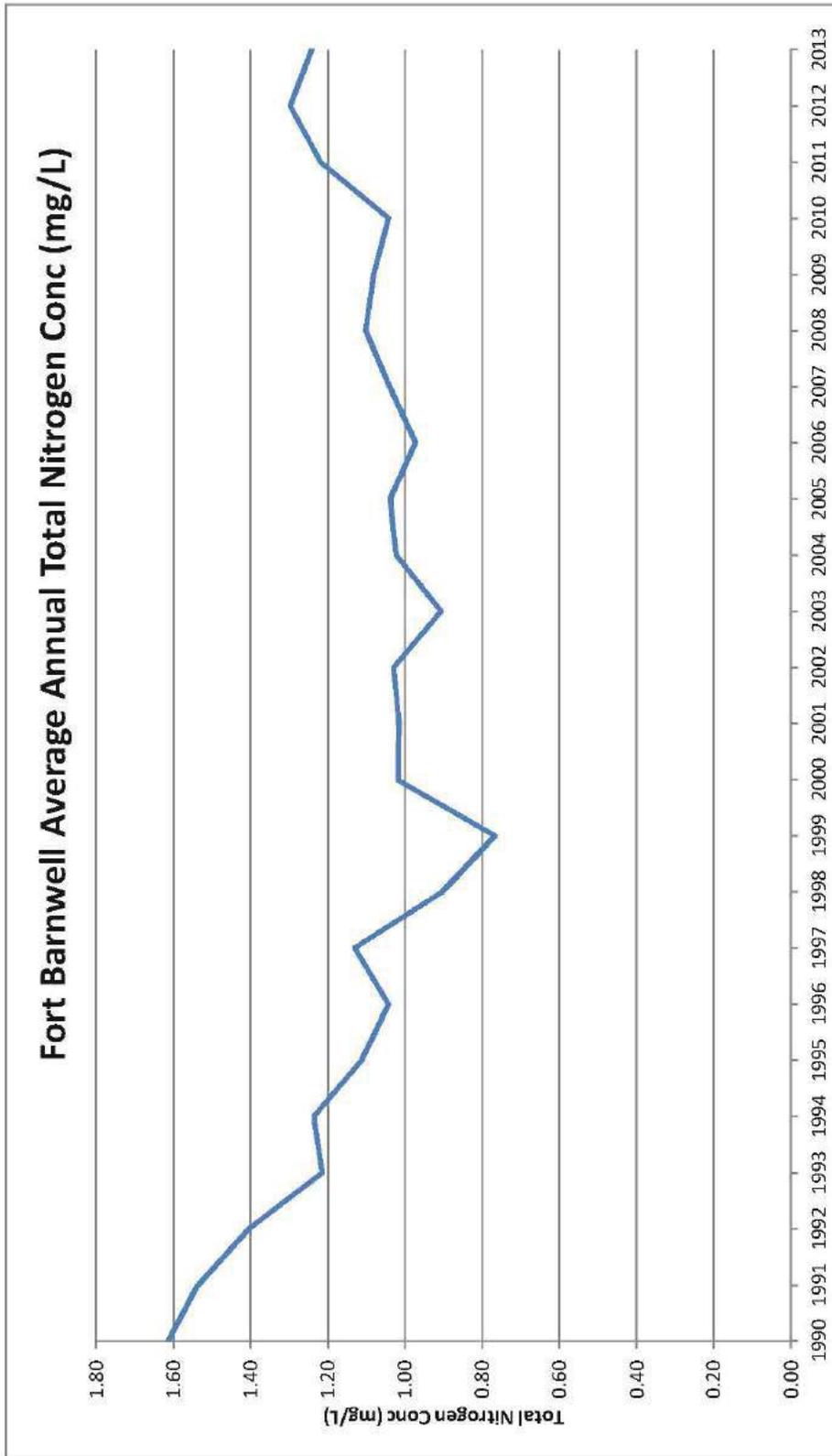
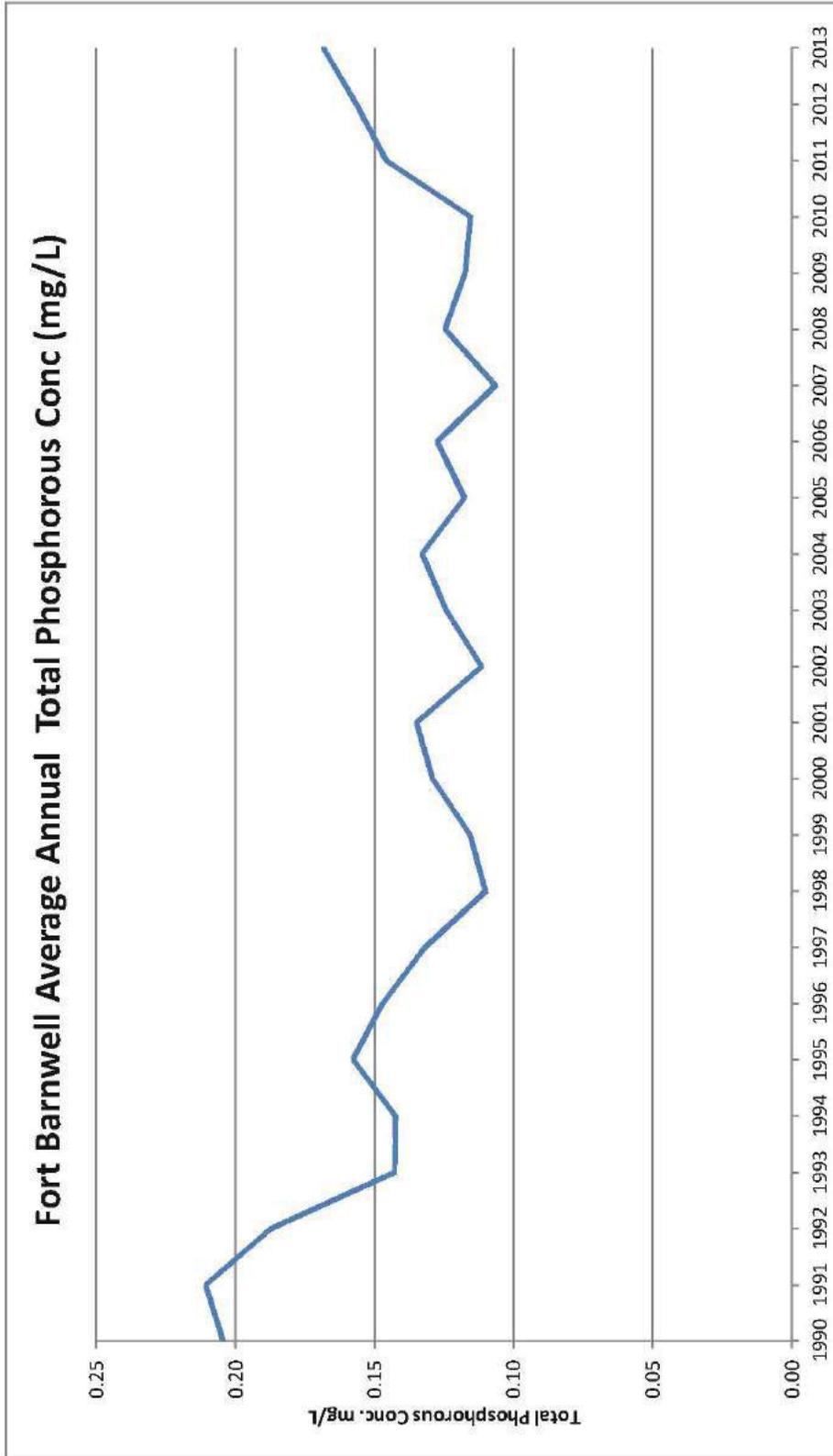


Figure 6 - Total Phosphorus Loading at Station J7850000 (Ft. Barnwell)





RESOLUTION BY THE
NEUSE RIVER COMPLIANCE ASSOCIATION
REGARDING PROPOSED SIGNIFICANT ADDITIONAL
NUTRIENT LOADING OF THE NEUSE ESTUARY

WHEREAS, N.C. General Statute § 143-215.1(b)(1) requires that the Environmental Management Commission, and by delegation the Director of the Division of Water Quality, act on permit applications “to prevent, so far as reasonably possible, considering relevant standards under State and federal laws, any significant increase in pollution of the waters of the State from any new or enlarged sources.”

WHEREAS, N.C. General Statute § 143-215.1(b)(2) requires that the Environmental Management Commission, and by delegation the Director of the Division of Water Quality, act on permit applications “so as to prevent violation of water quality standards attributable to the collective effects of permit decisions. Cumulative effects are impacts attributable to the collective effects of a number of projects and include the effects of additional projects similar to the requested permit in areas available for development in the vicinity. All permit decisions shall require that the practicable waste treatment and disposal alternative with the least adverse impact on the environment be utilized.”

WHEREAS, N.C. General Statute § 143-215.8B required that the Environmental Management Commission develop and implement a basinwide management plan in the Neuse River Basin. Because the Neuse River Basin was designated as nutrient sensitive waters, the EMC was required to establish nutrient reduction goals to “reduce the average annual mass load of nutrients that are delivered to surface waters within the basin from point and nonpoint sources.

WHEREAS, N.C. General Statute § 143B-282(d) required the EMC to incorporate the maximum daily loads for nutrients into “rules setting out the strategies necessary for assuring that water quality standards are met by any point or nonpoint source or by any category of point or nonpoint sources to is determined by the Commission to be contributing to water quality impairment.”

WHEREAS, N.C. General Statute §143-215.10C requires large animal operations to obtain permits from the Division of Water Quality. The operations can be permitted by general permits or individual permits. Confined poultry operations “required to be permitted under 40 Code of Federal Regulations §122, as amended at 73 Federal Register 70418 (November 20, 2008)” are required to be permitted before construction can commence. “The Commission, in its discretion, may require an animal waste management system be permitted under an individual permit if the Commission determines that an individual permit is necessary to protect water quality, public health, or the environment.”

WHEREAS, the Environmental Management Commission established the rules governing the Central Coastal Plain Capacity Use Area in 2002 which designation was

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 2 of 9

made to reduce substantially the groundwater withdrawals for the aquifers with the result that large sums have been spent by local governments towards meeting the rule requirement of a 75% reduction in groundwater withdrawals.

NOW, THEREFORE, the Neuse River Compliance Association, based on the best available information, make the following:

FINDINGS

- A. In the 2010 Neuse River Basinwide Water Quality Plan, the Environmental Management Commission made the following findings regarding the status of achieving water quality standards in the Neuse Estuary, an area of nutrient sensitive waters:
1. "Since full implementation of the nutrient reduction strategy, nitrogen loads from point sources have been reduced by 65 percent and the agriculture community has reduced their *estimated* nitrogen loss from cropland and pastureland by approximately 45 percent." [Summary] [Emphasis supplied.]
 2. "At this point the data do not seem to indicate any significant decrease in actual nitrogen loading to the estuary." [Summary]
 3. "Based on the results of the recent trend analysis (see Chapter 24), it is evident that it will take more than five years to discern a 30 percent decrease in load to the estuary." [Summary]
 4. "The major source of the added nutrients in this watershed [Subbasin 03-04-07 which includes Contentnea Creek and Toisnot Swamp] is from agricultural sources including concentrated animal operations and the land application of their waste. . . . There is a great need for agricultural and urban BMP installation throughout the Contentnea Creek watershed." [Chapter 7]
 5. "The water quality is heavily influenced by the many agricultural practices utilized in this watershed [Trent River]. There is considerable need for additional agricultural BMPs. A trend analysis indicated that there was a significant increase in total phosphorous (TP) concentration in the Trent River between 1990 and 2005. This trend suggests that there was an average increase of 1.6 percent in TP concentration per year during this time period." [Chapter 11]
 6. "DWQ recognizes the need to improve the assessment of the Trent River watershed in order to identify and reduce the excess nutrients that are likely responsible for the dense macrophytic algal growth within this watershed as well as contributing to the elevated productivity in the Neuse River Estuary." [Chapter 11]
 7. "Point source discharges as a whole met and surpassed their 30% nitrogen reduction target years in advance of the 2003 rule compliance deadline. Through 2006 they have reduced delivered N by as much as 65% below the 1995 baseline." [Chapter 24]
 8. "Two recent nutrient loading studies conducted by DWQ conclude that the goal of a 30% reduction in nutrient load to the Neuse Estuary has not yet been achieved." [Chapter 24]

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 3 of 9

9. "The estuary remains impaired and the total acreage of impairment has expanded." [Chapter 24]
 10. "Research indicates that atmospheric contributions accounts for approximately 24% of the total nitrogen load to the Neuse Estuary. Atmospheric N deposition has risen over the last twenty years, largely as volatilized ammonia (NH₃) from confined animal feeding operations (CAFOs) (Walker, et al. 2004)." [Chapter 24]
 11. "Groundwater may be a significant pathway of nutrient loading to the Neuse Estuary. Nutrients in groundwater can result from fertilization of vegetation as well as land application of treated wastewater and biosolids from municipal wastewater treatment plants and confined animal feeding operations (CAFOs) and may take as long as decades to appear in surface waters." [Chapter 24]
 12. "The second phase of the TMDL model results and estuary monitoring indicate that a 30 percent total nitrogen load reduction from the 1991-1995 baseline is currently sufficient. However, based on the overall range of results seen in the TMDL modeling, more than a 30 percent total nitrogen reduction may be needed in the future." [Chapter 24]
- B. In 2009, DWQ issued two permits under N.C. Gen. Stat. § 143-215.1 for a Sanderson Farms poultry processing facility and related facilities located in Lenoir County, at or near Kinston. WQ0034152 and WQ0034380. In 2011, DWQ issued NCG 060321, a stormwater certificate of compliance, to the feed processing facility operated by Sanderson Farms.
- C. The Kinston Sanderson Farms poultry processing facility is designed to process 62.5 million chickens per year. Based on the Nash County DEIS, Sanderson Farms will need approximately 83 supply farms, with four large chicken houses at each farm, to produce the total number of chickens to meet the production capacity of its processing facility.
- D. Sanderson Farms considers it economically feasible for supply farms to be located within an approximately 50-mile radius of its feed mill facility. Approximately 60% of the lands within 50 miles of the Kinston feed facility are located in the Neuse Basin, with a substantial amount of those lands located in the Contentnea Creek and Trent River sub-basins for the Neuse Basin.
- E. In a 2009 publication, Dr. Hans Paerl, Martin Lebo and Benjamin Peierls examined the impact that nutrient reduction measures had provided for achievement of the Neuse Estuary TMDL goals. For evaluation purposes, the authors examined the Neuse River system in 3 component parts, with two parts being the Contentnea Creek sub-basin and the Trent River sub-basin. Upstream from the confluence of the Neuse River and Contentnea Creek, the goals of the TMDL were being achieved. "Overall, there was no change in TN (Total Nitrogen) for Contentnea Creek despite an 8-9% decrease in the NO₃-N fraction from the post TMDL period." The TN and Total Phosphorous "fractions in the Trent River have increased in concentration over the past 10 years." See

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 4 of 9

“Evaluating Effectiveness of Management Actions Implemented to Reduce Nutrients in the Neuse River Basin Using a Stratified Approach” at pp 3, 24-27.

F. In a 2010 publication, Dr. Hans Paerl, Martin Lebo and Benjamin Peierls examined the progress in achieving nutrient reductions in the Neuse River. The researchers divided the Neuse Basin into four zones so as to better examine the progress by two primary forms of nitrogen which compose the Total Nitrogen used to set the goals for the TMDL for the Neuse Estuary. The following excerpts are from the report entitled *Evaluation of Progress in Achieving Nitrogen Reductions in the Neuse River Basin, North Carolina*, Lebo, Paerl & Pierels (2010):

1. “Decreases in nitrate+nitrite (NO₃-N) concentrations occurred throughout the basin and were largest below the Raleigh metropolitan area. Conversely, concentration of total Kjeldahl N (TKN) increased in many stations, particularly under high flow conditions.” (p 1).
2. In the Contentnea Creek subwatershed, “[t]hen, both TKN and NO₃-N fractions increased again in periods ending in 2003 to 2009. The recent increase in NO₃-N and TKN flow-normalized loadings is due to increases for the middle and high flow intervals (data not shown).” (p 13).
3. In the Trent River subwatershed, “[t]he NO₃-N and TKN fractions at Trenton varied considerably over the past 30 years; NO₃-N peaked in the late 1980s and in recent years while TKN peaked in the early 1980s and mid-2000s. Overall, the flow normalized TN load was relatively constant at the 1991-1995 level for the mid-1980’s through the early 2000s until increasing by 30% for periods ending in 2005 to 2009.” (p 14)
4. “The general pattern of constant or increasing TKN concentration throughout the basin indicates actions to date many not have collectively addressed N inputs under high flow conditions, such as N associated with land drainage and stormwater. ***This lack of instream improvement for high flow conditions contradicts estimated reductions of 45% in TN export from agricultural lands and implementation of urban stormwater plans in many areas of the basin (NCDWQ 2009).*** (p 20) [Emphasis supplied.]
5. “Further, applying the approach to different N fractions in the case example showed there was progress achieved in reducing NO₃-N inputs but not TKN, particularly during high flow conditions.” (p 22).

G. In the fall of 2010, Nash County filed a scoping document with the State of North Carolina for a second poultry processing facility that will impact the Neuse River Basin and the Neuse Estuary. The proposed Nash County Sanderson Farms poultry processing facility is designed to process ***an additional*** 62.5 million chickens per year. Sanderson Farms estimates that 106 supply farms, with a total of 568 houses, will be necessary to produce the total number of chickens to meet the production capacity of its processing facility. Approximately 45% of the

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 5 of 9

lands within 50 miles of the Nash facilities are located in the Neuse Basin, with a substantial amount of those lands located in the Contentnea Creek sub-basin.

- H. The direct and indirect effects from the Kinston Sanderson facilities alone will result in the generation of additional nitrogen loading in eastern North Carolina of between 3.36 and 4.8 million pounds a year. Based on the assumption of equal distribution of the poultry growing facilities in the 50-mile radius, the additional nitrogen loading in the Neuse Basin will be between 2 and 2.9 million pounds of additional nitrogen loading. Based on the start up process for other Sanderson Farm Inc. facilities in its annual report, the Kinston processing plant should not yet be operating at full capacity so its cumulative effects have not begun for the Neuse Basin.
- I. The DWQ permits issued to the Kinston Sanderson facilities have resulted in, and will result in additional cumulative effects on the Neuse Estuary TMDL which must be considered in deciding whether to issue permits for a second, large new Sanderson poultry processing facility in Nash County and its associated chicken growing farms spread over an eight county area. The land application spray fields for the Nash proposed processing plant are in the Contentnea Creek sub-basin of the Neuse River Basin. In addition, the Neuse Basin, especially in its Contentnea Creek subbasin, will have secondary impacts from the approximately 100 supply farms necessary to provide poultry for processing.
- J. The cumulative effect of the additional plant in Nash County and the Kinston Plant together will result in the generation of additional nitrogen loading in eastern North Carolina of between 6.72 and 9.6 million pound a year. Based on the assumption of equal distribution of the poultry growing facilities in the 50 mile radius of the Nash facilities, the additional nitrogen loading in the Neuse Basin will be between 3.5 and 5 million pounds of additional nitrogen loading from land application of the litter.
- K. Based on the 1998 baseline data, the Neuse Estuary was being impacted by 22.4 million pounds of nitrogen loading per year from nonpoint sources, including agricultural loading. In the 2010 Neuse Basin Plan, agricultural reductions were estimated at 45% of the 1998 baseline for nonpoint sources or 10 million pounds. The agricultural reductions, unlike the point source reductions, are not independently verified so the total reductions by agriculture are uncertain in light of other indices showing trends of increased loading from areas in the Neuse Basin dominated by agriculture, for example the Trent River sub-basin.
- L. The poultry growing facilities will also release significant amounts of ammonia into the Neuse River Basin. The total amount of ammonia released by the 1,000 growing farms is estimated at 6.4 million pounds of ammonia per year. The released ammonia will have a substantial adverse impact on the achievement of the TMDL that applies to the Neuse Estuary.

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 6 of 9

- M. The proposed Nash processing facility is described by Sanderson Farms as relying for wastewater disposal on land application of its treated wastewater on disposal fields located in a Water Supply Watershed designated by the Environmental Management Commission to protect a drinking water supply used by the City of Wilson. The Water Supply Watershed is classified as a WS-III Water Supply Watershed and it is located in the Toisnot sub-basin of Contentnea Creek, a tributary to the Neuse River.
- N. The Nash processing facility will be located in the Tar-Pamlico River Basin. The wastewater from the processing facility is proposed to be transferred into the Neuse River Basin for land application and disposal.
- O. The new chicken farms required to supply the proposed Nash processing facility will use a collective average of 2.55 MGD of water, much of which is projected to be withdrawn from the aquifers protected by the Central Coastal Plain Capacity Use Area rules.
- P. The new chicken farms required to supply the Kinston processing facility will use an average of 2.55 MGD of water, much of which is projected to be withdrawn from the aquifers protected by the Central Coastal Plain Capacity Use Area rules.
- Q. In its "Draft Environmental Impact Statement¹," Nash County states that Sanderson Farms Inc. is recruiting farms in an 8 county area. The 8 counties identified in the DEIS produced 45,625,690 broiler chickens in 2007 from 132 large farms. The Nash facility will require enlarging the number of chickens raised in those counties by 65,000,000 and the total number of farms by 106 farms, thus more than doubling the impact of chicken farms on the environment in those counties.
- R. In its "Draft Environmental Impact Statement," Nash County states that Sanderson Farms Inc. also has or is adding farms in the area near the Kinston facility. Including the 8 counties identified for recruitment in the DEIS, the additional 65,000,000 chickens per year required to meet production by the Kinston facility means that an additional 130,000,000 chickens will be added to the 14 county region within a 50 mile radius of one or both processing facilities. The 14 counties produced 98,488,617 broiler chickens in 2007 from 266 large farms. The cumulative impact from both facilities will more than double the impact of chicken farms on the environment in those 14 counties.
- S. For both the Neuse and the Tar-Pamlico Basins, the second nutrient of significant concern is phosphorous. In the DEIS, Nash County does not consider or evaluate

¹ On May 2, 2010, the NRCA received notification that Nash County had withdrawn the DEIS from the State Clearinghouse comment process. Since it is the most comprehensive, albeit inadequate, examination of the proposed project, the NRCA relies on it in this Resolution.

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 7 of 9

the impact that additional phosphorous loading from the application of poultry litter as a fertilizer could have on the ability of the basins to recover from nutrient overloading and the achieve the chlorophyll-*a* water quality standard.

- T. At page 58 of the DEIS, Nash County acknowledged that there will be increased use of poultry litter in the Basins but denies this will result in any additional loading in the Basins. “While application of dry litter from poultry is likely to increase as a result of the project, its application in many cases – as noted by the Extension Director for Nash County – will be a substitute for other commercially available fertilizers. Therefore, the increase in dry litter as fertilizer will likely not equate to a net increase in fertilizer use as a whole in the region.”
- U. Research dating from 1994 has established that the mixture of nitrogen and phosphorous in poultry litter is unequal as relates to the uptake capacity of crops and needs of soils. The use of poultry litter typically results in more than 6 times the application of phosphorous as the crop needs. “Managing Agricultural Phosphorous for Protection of Surface Waters: Issues and Options,” Sharpley, et al., 23 Journal Environmental Quality 437-451, see p 444. In addition, phosphorous overloading occurs because land owners only test for nitrogen content in manure when it is used as a fertilizer and most soils are already overloaded with phosphorous from past applications of fertilizers. See page 442. A more recently published study reaches the same conclusions. “Hydrologic and Phosphorous Export Behavior of Small Streams in Commercial Poultry-Pasture Watershed,” Romeis, et al., Journal of American Water Resources Association, 2010.
- V. The highest risk of phosphorous migration from soils to the water bodies is during rainfall events. *Ibid*, p 441. The discharge of “agricultural stormwater and return flows from irrigated agriculture” is exempted from regulation as a point source under the Clean Water Act. 33 U.S. Code § 1362(14).
- W. The DEIS shows, and relies on, the criteria imposed by contract on poultry growers by Sanderson Farms, Inc. The criteria do not require testing of soils for the appropriate amount of phosphorous application in the poultry litter used as a fertilizer.

NOW, THEREFORE, the Neuse River Compliance Association, based on the available information and the foregoing findings, adopt the following:

RESOLUTIONS

1. Recent research on the success of the strategies adopted by the Environmental Management Commission show that while wastewater treatment plants are independently verified to have substantially exceeded the 30% reduction goal, the Neuse Estuary still needs more nitrogen reductions to achieve its overall goal of a

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 8 of 9

30% reduction in Total Nitrogen. In its recent revisions of the Neuse Basin Plan, the EMC found that the Neuse Estuary goal of a 30% reduction in nutrient loading has not been achieved and that significant new loading comes from two subbasins where there are large numbers of concentrated animal feeding operations which land apply their waste.

2. Since this analysis was completed by the EMC, DWQ has permitted a new large poultry processing facility in the Neuse Basin which is expected to result in the siting of many of its estimated 100 large chicken supply farms in the Neuse Basin, in particular in the two subwatersheds from which new TN loading has been identified as adversely impacting the goal of the TMDL. Any new facility which will result in increased TN production in the Neuse Basin of up to or more than 1 million pounds of TN per year will result in "significant increase[s] in pollution of the waters of the State from any new or enlarged sources" as the phrase is used in N.C. Gen. Stat. §143-215.1(b)(1). Accordingly, the Division of Water Quality must either deny any applications required for such facilities to be constructed or to operate unless it can avoid the potential for a significant increase in pollution for the Neuse Estuary which will impair or delay achievement of the nutrient reductions established by the TMDL.
3. Based on the amount of additional nutrient loading into the Neuse Basin and the findings in the 2010 Neuse Basin Plan, the Division of Water Quality is required by N.C. Gen. Stat. §143-215.1(b)(2) to consider the "collective impacts" of the multiple similar facilities in making its permit decisions on permit applications.
4. The proposed location of the spray fields for land application of treated wastewater from the proposed Nash County processing facility in a designated Water Supply Watershed is not "the practicable waste treatment and disposal alternative with the least adverse impact on the environment." In addition, the transfer of the wastewater from another river basin into a basin subject to a TMDL for nutrient overloading is not "the practicable waste treatment and disposal alternative with the least adverse impact on the environment." Accordingly, an application to transfer treated wastewater from another river basin into the Neuse River Basin or to apply treated wastewater to spray fields in any water supply watershed should be denied pursuant to N.C. Gen. Stat. §143-215.1(b)(2).
5. The cumulative amount of additional nitrogen and phosphorous to be generated in the Neuse Basin by any proposed new poultry processing facility in the Neuse Basin must be determined by combining that amount of loading with the recently permitted poultry processing facility in the Neuse Basin to determine whether the proposed facility will result in such substantial effects on the Neuse Estuary that water quality standards will be violated and thus require denial of any permit applications for the construction and operation of the proposed facility.

NRCA Resolution Regarding Large New Sources of Nitrogen
May 5, 2011
Page 9 of 9

6. The State of North Carolina should require a Environmental Impact Statement be prepared to accompany any additional applications for another large animal processing facility in the Neuse River Basin and that the EIS should include a full examination and explanation of the secondary and cumulative impacts the recently permitted poultry processing facility and the proposed new facility, including the farms supplying the animals for slaughter, will have on the nutrient sensitive and TMDL regulated river basins including the Neuse Estuary and Neuse River Basin as well an analysis of the impact on the Central Coastal Plains Capacity Use Area's recovery. If the Environmental Impact Statement is prepared by a federal agency pursuant to the National Environmental Policy Act, the State of North Carolina should comment and seek in the document a full examination and explanation of the secondary and cumulative impacts the recently permitted poultry processing facility and the proposed new facility, including the farms supplying the animals for slaughter, will have on the nutrient sensitive and TMDL regulated river basins including the Neuse Estuary and Neuse River Basin as well an analysis of the impact on the Central Coastal Plains Capacity Use Area's recovery.

This the 5th day of May, 2011.



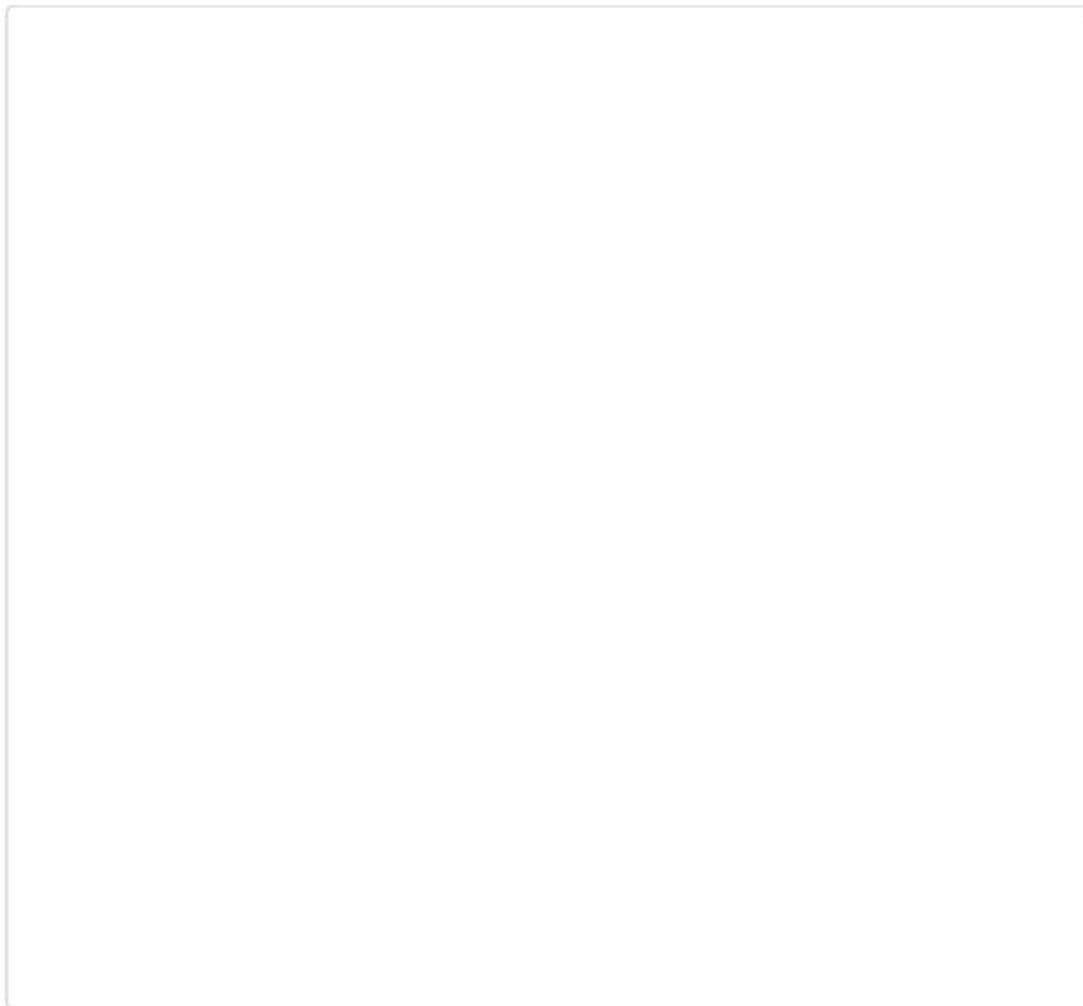
Daniel F. McLawhorn
Chair
Neuse River Compliance Association



Sanderson: No plan for local chicken barns

First Posted: 8:01 pm - September 24th, 2015

By Bob Shiles - bshiles@civitasmedia.com





Jaymie Baxley | The Robesonian | Excavators and dump trucks clear the site of Sanderson Farms \$115 million chicken processing plant near St. Pauls. The facility will process about 1.25 million chickens each week.

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ST. PAULS — The poultry company from Mississippi that is building a chicken processing plant in St. Pauls and a hatchery in Lumberton has no plans to build chicken barns in Robeson County, according to the company's director of development and engineering.

"At this time that's not planned," Bob "Pic" Billingsley told The Robesonian on Wednesday. "Our chicken houses will be in the four or five counties in close proximity to Lenoir County, where our feed mill is located."

Concerns about the proliferation of chicken barns was raised at a Sept. 17 public hearing held in St. Pauls to discuss Sanderson Farms' plans for its \$115 million chicken processing plant being built on N.C. 20 near Covington Farm Road, about four miles from St. Pauls. Sanderson Farms will also build a hatchery on N.C. 41, just east of Lumberton, that would cost about \$18 million. Sanderson has plans to hire about 1,100 to 1,200 employees.

The hearing, led by the North Carolina Division of Water Resources, was required for Sanderson Farms to get a permit to build a 1.4 million-gallon per day wastewater treatment plant and an irrigation system with 350 acres of spray fields at the site of the chicken plant.

Kemp Burdette, with Cape Fear River Watch, said during the hearing that it's estimated the plant will require more than 500 new chicken barns to provide the 1.25 million chickens that will be slaughtered weekly at the plant.

Billingsley said that there will be 60 to 70 farms near the Kinston feed mill that Sanderson will contract with to raise chickens.

"These farms together will support upward of 575 houses," he said.

According to Billingsley, it makes economic sense for the chicken barns to be located near the Kinston feed mill.

"Having to haul feed to our growers is one of our largest expenses," he said. "We haul multiple times to our growers during the growing process, but we haul only one time when hauling (chickens) to the processing plant.

"In an ideal world, it's best to locate chicken barns within 30 to 45 miles of a feed mill," Billingsley said. "... We always stay in as close of a proximity as possible to our feed mills. With a business like ours, to remain competitive, we have to manage every penny."

Christine Ellis, with the Winyah Rivers Foundation, called it "good news" for Robeson County and neighboring Cumberland County.

"With no new chicken barns, there won't be additional chicken waste impacting the Lumber River," Ellis said. "That's definitely good news."

Ellis, who raised environmental concerns at the Sept. 17 hearing, said Wednesday that she is still concerned about the potential for a lot of waste from the spray fields to seep into the Gum Branch and Black Branch swamps, both of which drain into the Big Marsh Swamp. Eventually, Ellis said, this waste will make its way into the Lumber River near Lumberton.

Ellis said that a full environmental impact study of the processing plant needs to be conducted. No detailed study has been done by the state, Robeson County or St. Pauls, she said.

"This should have been done before the project was approved," Ellis said. "But it's still not too late to get it done."

The state is accepting comments by mail through Oct. 2 related to the permit discussed at the public hearing on Sept. 17. After Oct. 2, the Division of Water Quality will have 30 days to decide whether it will approve, deny or revise the permit.

Written comments can be sent to Nathaniel Thornburg, North Carolina Division of Water Resources, Non-Discharge Permitting Unit, 1617 Mail Service Center, Raleigh, N.C., 27699-1617.

Information about the permit and a fact sheet on the project can be found at portal.ncdenr.org/web/wq/aps/lau.

Bob Shiles can be reached at 910-416-5165.

Thornburg, Nathaniel

From: Will Hendrick <whendrick@selcnc.org>
Sent: Friday, October 02, 2015 3:55 PM
To: Thornburg, Nathaniel
Cc: Blakely Hildebrand; 'Christine Ellis'; Larry Baldwin; 'Gray Jernigan'; 'Kemp Burdette'; Heather Deck; Matthew Starr; Travis Graves
Subject: Comments re: Draft WQ0037772
Attachments: SELC Comments re Draft WQ0037772 (Sanderson Farms Non-Discharge Permit).pdf; Exhibit Index - UPDATED PDF.PDF

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Nathaniel,

Attached please our comments, submitted on behalf of Waterkeeper Alliance, Winyah Rivers Foundation, Cape Fear River Watch, and Sound Rivers, in response to the draft permit (WQ0037772) that would authorize Sanderson Farms to construct and operate wastewater treatment and irrigation facilities in St. Pauls, North Carolina. Thank you in advance for your thoughtful consideration of our concerns and recommendations.

Also attached is an index of the Exhibits referenced in the comment letter (the Exhibit file size was too large to email, even after compression). I will send the Exhibits in separate emails.

Will Hendrick
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October 2, 2015

Via email

Nathaniel Thornburg
N.C. Department of Environmental Quality, Division of Water Resources
Water Quality Permitting Section – Non-Discharge Permitting Unit
1617 Mail Service Center
Raleigh, NC 27699
nathaniel.thornburg@ncdenr.gov

Re: Draft Non-discharge Permit No. WQ0037772 – Sanderson Farms, Inc.

Dear Mr. Thornburg:

The Southern Environmental Law Center provides these comments on behalf of Waterkeeper Alliance, Winyah Rivers Foundation, Cape Fear River Watch, and Sound Rivers regarding draft non-discharge permit No. WQ0037772 (“draft permit”), which would authorize Sanderson Farms, Inc. (“Sanderson”) to construct and operate wastewater treatment and irrigation facilities in St. Pauls, North Carolina. We appreciate the opportunity to provide comments.

In May 2015, Sanderson applied to the N.C. Department of Environment and Natural Resources - Division of Water Resources (“DWR”) for a permit to construct and operate a wastewater treatment and irrigation system to accommodate wastewater from a proposed poultry processing plant. Wastewater from daily processing operations would be only partially treated, before being sprayed on the surface of approximately 349 acres of fields, at an average rate of 1.4 million gallons per day.

We are concerned by the impact the permitted operations may have on the groundwater and surface water resources of St. Pauls. Many North Carolinians in St. Pauls and throughout Robeson County rely on groundwater wells for their drinking water.¹ The high rate of groundwater withdrawal and the waste disposal practices proposed by Sanderson threaten both the quantity and quality of this precious resource. Moreover, due to the proposed land application of wastewater and the associated risks, we are concerned about the threat posed to important surface waters nearby. The processing facility will be located adjacent to Black Branch Swamp and Gum Branch Swamp, which feed into Big Marsh Swamp. Proposed spray fields are located on either side of Big Marsh Swamp, which eventually flows into the Lumber

¹ See Exhibit A (illustrating the location of public water supply groundwater wells near the proposed facility and spray fields).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 2 of 19

River.² The Lumber River is designated as a federal Wild and Scenic River and as a State Natural and Scenic River downstream of its confluence with Big Marsh Swamp.³

For the reasons stated below, SELC objects to the draft permit as written and respectfully requests that DWR take the following actions before approving a non-discharge permit for Sanderson:

- Conduct a complete and thorough “cumulative effects” analysis of the water quality and quantity impacts of the Sanderson processing facility itself, similar permitted facilities in the Lumber River Basin, and all “deemed permitted” poultry operations associated with the Sanderson facility, then adjust the permit parameters so as to prevent violation of water quality standards;
- Amend the draft permit to require up-gradient and down-gradient groundwater and surface water monitoring of the parameters discussed below four times per year;
- Amend the draft permit to require pre-operation surface water monitoring to collect baseline data;
- Amend the draft permit to include effluent limits for five-day biochemical oxygen demand, total suspended solids, ammonia, fecal coliforms, plant available nitrogen, and phosphorus; and
- Amend the draft permit to lower the authorized flow rate.

I. Legal Background

In the Water and Air Resources Act, the N.C. General Assembly declared it the public policy of the State to conserve water and air resources and to “achieve and to maintain” an environment of “superior quality.”⁴ To that end, the legislature specified activities requiring permits; these permits were in turn expected to avoid, limit and mitigate the environmental harm caused by industrial and other activities. The North Carolina General Assembly established a water quality permitting scheme that, like federal law, distinguishes between facilities discharging directly into surface waters and facilities not discharging directly into surface waters.⁵ Permits are required for facilities that discharge directly into State waters, much the way that federal law requires permits for facilities that discharge into waters of the United States. Our legislature also required permits for activities that do not constitute discharges into State

² See *id.* (illustrating the location of the proposed processing facility and spray fields in relation to major water bodies nearby).

³ See Exhibit B (illustrating the location of the proposed processing facility and spray fields in relation to segments of the Lumber River that have been designated as a State Natural, Scenic, and Recreational River and a federal Wild and Scenic River).

⁴ N.C. Gen. Stat. § 143-211(a).

⁵ See *id.* § 143-215.1.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 3 of 19

waters but that may still affect water quality in the state.⁶ Such activities include, *inter alia*, “construct[ing] or operat[ing] any sewer system, treatment works, or disposal system within the State.”⁷ Of particular relevance, under State law, any facility planning to dispose of waste by land application must obtain a permit before beginning operations.⁸

DWR has the statutory authority to issue permits for the land application of waste at facilities not proposing to discharge into the surface waters of the state.⁹ However, the legislature did not grant DWR absolute discretion in issuing these permits. By law, DWR must exercise its permitting authority “so as to prevent . . . any significant increase in pollution of the waters of the state from any new . . . sources.”¹⁰ To do so, DWR must consider the applicant’s history of compliance with other environmental permitting requirements.¹¹ Further, DWR “shall act on permits so as to prevent violation of water quality standards due to the cumulative effects of permit decisions.”¹² To limit the cumulative environmental impact of permitted operations, “[a]ll permit decisions shall require that the practicable waste treatment and disposal alternative with the *least adverse impact* on the environment be utilized.”¹³

In other words, there are two distinct but related inquiries that DWR must conduct prior to issuing a non-discharge permit. The first inquiry focuses exclusively on the applicant and the direct environmental impact caused by the activity for which a permit is sought. The second focuses on the impact of other permitted activities as augmented by the applicant’s operations. This second inquiry requires consideration of the cumulative effect of similar and related permitted activities. Because the agency’s ultimate duty is to prevent water pollution, if the cumulative effects analysis predicts significant environmental impact, DWR should either deny the requested permit or limit the applicant’s direct environmental impact such that, on the whole, water quality in the area is protected.

As explained below, we are concerned by the way that DWR conducted the first inquiry; we see no evidence that the latter inquiry was conducted. As such, in the following sections, we outline the legal requirements that govern each aspect of the agency’s permitting decision and make suggestions for improvement to the draft permit under consideration.

II. The Draft Permit Inadequately Limits the Direct Impact of Sanderson’s Operations.

To begin, we believe the permit conditions are insufficient to prevent, or even appropriately document, water pollution caused by Sanderson’s wastewater treatment and

⁶ See *id.* § 143-215.1(a).

⁷ *Id.* at §§ 143-215.1(a)(2), (6), (12).

⁸ See *id.* § 143-215.1(d); see also *id.* § 143-215.1(a4) (delegating to DEQ the authority to regulate wastewater systems “designed to discharge effluent to land surface”).

⁹ See N.C. Gen. Stat. § 143-215.1(d).

¹⁰ *Id.* at (b)(1).

¹¹ See *id.* § 143-215.1(b)(4)2; 15A N.C. Admin. Code 02T .0120.

¹² N.C. Gen. Stat. § 143-215.1(b)(2).

¹³ *Id.* (emphasis added); see also 15A N.C. Admin. Code 02T.0105(f).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 4 of 19

irrigation system. To provide context for this concerns, we briefly outline the applicable legal requirements.

A. Requirements and Design Criteria for Non-discharge Permits

An applicant for a non-discharge permit must “provide adequate documentation to [DWR] to ensure that the proposed system will meet all design and performance criteria as required under [Subchapter 2T] and other applicable rules, be operated as a non-discharge system, and protect surface water and groundwater standards.”¹⁴ The required contents of an application for a wastewater irrigation system are stated in 15A N.C. Admin. Code 02T. 0504. Notably, the applicant must provide an extensive soils report documenting soil types, a soil profile, recommendations regarding hydraulic loading rates, and a soils analysis.¹⁵ In addition, “[f]or industrial processing facilities, a waste analysis extensive enough to allow a complete evaluation of the system’s capability to treat the waste and any potential impacts on the waters of the state shall be included” with the application.¹⁶ When reviewing a permit application, DWR is instructed to make a “site specific evaluation” of the impacts of the proposed activity on surface water and groundwater quality.¹⁷

A facility should not receive a non-discharge permit if its activities will result in:

- (1) the significant degradation of groundwaters which have existing quality that is better than the assigned standard, unless such degradation is found to be in the best interests of the citizens of North Carolina based upon the projected economic benefits of the facility and a determination that public health will be protected, or
- (2) a violation of a groundwater quality standard beyond a designated compliance boundary, or
- (3) the impairment of existing groundwater uses or increased risk to the health or safety of the public due to the operation of a waste disposal system.¹⁸

The full list of groundwater standards can be found at 15A N.C. Admin. Code 02L.0202. Subject to inapplicable exceptions, no permittee may operate a system that causes an exceedance of these standards.¹⁹ A permittee likewise may not violate surface water quality standards.²⁰

¹⁴ 15A N.C. Admin. Code 02T .0105(b).

¹⁵ *Id.* at 02T .0504(b).

¹⁶ *Id.* at 02T .0105(c)(7).

¹⁷ *Id.* at 02T.0107(d).

¹⁸ 15A N.C. Admin. Code 02L .0103(b)

¹⁹ *See id.* at 02L .0103(d) (“No person shall conduct or cause to be conducted, any activity which causes the concentration of any substance to exceed that specified in Rule .0202 of this Subchapter, except as authorized by the rules of this Subchapter.”).

²⁰ *See* 15A N.C. Admin. Code 02B .0211 for surface water quality standards for Class C waters.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 5 of 19

The design criteria for wastewater irrigations systems are provided in 15A N.C. Admin. Code 02T.0505. Of particular relevance is the requirement that “[a]ll wastes shall be applied at agronomic rates unless predictive calculations are provided that document State groundwater standards will be protected.”²¹ Also, “[d]isposal areas shall be designed to maintain a one-foot vertical separation between the seasonal high water table and the ground surface.”²² Moreover, the minimum degree of treatment for a new commercial facility “shall meet a monthly average of five-day Biochemical Oxygen Demand (BOD5) = 30 mg/L; Total Suspended Solids (TSS) = 30 mg/L; Ammonia (NH3) = 15 mg/L; and Fecal Coliforms = 200 colonies/100 ml.”²³

The law requires “that permits for all activities governed by G.S. 143-215.1 be written to protect the quality of groundwater established by applicable standards, at the compliance boundary.”²⁴ Groundwater regulations establish a compliance boundary 250 feet from the waste boundary, or 50 feet within the property boundary, whichever point is closer to the source.”²⁵ “The boundary shall form a vertical plane extending from the water table to the maximum depth of saturation.”²⁶ In addition, DWR may require groundwater and surface water monitoring “necessary to determine the source, quantity and quality of the waste and its effect upon the surface water, ground waters or wetlands.”²⁷

B. Sanderson’s History of Non-compliance with Environmental Laws Merits Additional Scrutiny of Proposed Operations.

In addition to requiring DWR to conduct a site-specific analysis, the law requires the agency to consider the specific applicant seeking permission to operate the proposed system. Particular care should be taken when drafting the permit under consideration due to Sanderson’s substantial history of noncompliance with permits issued to protect adjacent waters from its other poultry processing operations throughout the country. Past performance is a reliable indicator of future action, as both our legislature and the Environmental Management Commission recognized when they noted the importance of evaluating an applicant’s compliance history before making a permitting decision.²⁸

Sanderson has proven either incapable of or uninterested in environmental protection, as evidenced by an extensive record of noncompliance with permits issued to protect affected waters from poultry processing operations. Indeed, DWR has already been forced to cite Sanderson for a violation *at the very location* where the permit under consideration would

²¹ 15A N.C. Admin. Code 02T .0505(c).

²² *Id.* at 02T .0505(p).

²³ *Id.* at 02T .0505(b).

²⁴ 15A N.C. Admin. Code 02L .0107(k)(1).

²⁵ *Id.* at 02L .0107(a).

²⁶ *Id.* at 02L .0107(h).

²⁷ 15A N.C. Admin. Code 02T .0108(c).

²⁸ *See* N.C. Gen. Stat. § 143-215.1(b)(4)2; 15A N.C. Admin. Code 02T .0120.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 6 of 19

authorize operations.²⁹ Additional notices of violation issued by the Mississippi Department of Environmental Quality are attached as further evidence of the company’s non-compliance with environmental laws.³⁰

Sanderson has also failed to comply with permits issued to it under the National Pollutant Discharge Elimination System (“NPDES”). Data are available online for five of Sanderson’s poultry processing plants with NPDES permits; each of those five facilities has failed to comply with its permits in at least two of the last 12 quarters. Notably, Sanderson’s facility in Waco, Texas, has committed NPDES permit violations in eight of the last 12 quarters, and the facility in Bryan, Texas, has been noncompliant in all 12 quarters for which data are available.³¹ Given this history of noncompliance, we question the leniency afforded the company in the drafting of the non-discharge permit at issue. As explained below, we believe DWR should draft a more stringent permit to ensure that the disregard of water quality that Sanderson has shown elsewhere does not threaten North Carolina’s natural resources.

C. The Draft Permit Should Include Appropriate Effluent Limits.

The draft permit authorizes Sanderson to land-apply an unlimited concentration of pollutants onto designated spray fields. The list of “Limitations and Monitoring Requirements” in Attachment A is almost entirely devoid of actual limitations.³² At minimum, the permit should impose limits for BOD₅, Total Suspended Solids, Ammonia, and Fecal Coliform that are consistent with 15A N.C. Admin. Code 02T .0505(b).³³ We recommend incorporating the limits stated in 02T .0505(b)(1) into the column stating the maximum “monthly average” effluent limits.³⁴

In addition, even where limits are not explicitly required by rule, the permit should be drafted “to prevent, so far as reasonably possible, . . . any significant increase in pollution of the waters of the State.”³⁵ Of particular concern is the risk of nutrient pollution authorized under this permit. According to the EPA, “[n]utrient pollution resulting from excess nitrogen (N) and

²⁹ See Exhibit C (Notice of Violation issued to Sanderson Farms by N.C. Department of Environmental Quality (Sept. 25, 2015)).

³⁰ See Exhibit D (summary of Notices of Violation issued to Sanderson Farms’ Mississippi facilities).

³¹ See Exhibit B (compilation of U.S. EPA – Enforcement and Compliance History Online Database Reports for Sanderson Farms facilities located outside of North Carolina).

³² At various frequencies, the permittee would be required to monitor the concentration, level, or ratio of certain aspects of its effluent; however the permit does not place a limit on the allowable concentration, level, or ratio.

³³ See *Memorandum by Tetra Tech Re: Review of non-discharge permit application and draft permit for Sanderson Farms, Inc. chicken processing facility in Robeson County, North Carolina*, 3.3.2.11 (Sept. 24, 2015), Exhibit F [hereinafter *TT Report*]. By rule, the minimum degree of treatment for a new commercial facility “shall meet a monthly average of five-day Biochemical Oxygen Demand (BOD₅) = 30 mg/L; Total Suspended Solids (TSS) = 30 mg/L; Ammonia (NH₃) = 15 mg/L; and Fecal Coliforms = 200 colonies/100 ml.” 15A N.C. Admin. Code 02T .0505(b)(1).

³⁴ While the draft permit requires Sanderson to monitor each of the parameters addressed in 02T .0505(b)(1), it does not limit the concentration of any pollutants in Sanderson’s effluent.

³⁵ N.C. Gen. Stat. § 143-215.1(b)(1).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 7 of 19

phosphorus (P) is a leading cause of degradation of U.S. water quality.³⁶ Yet the permit includes no numeric limits on the amount of either nitrogen or phosphorus that may be land-applied. Instead of limiting nitrogen, the permit limits land application to the “agronomic rate,” a rate that is derived from the “nitrogen needs” of the cover crop.³⁷ However, that limit is impossible to enforce without specification. Notably, for Sanderson’s facility in Kinston, DWR explicitly recognized that, “since there will be no effluent limits,” it was necessary to add a plant available nitrogen (“PAN”) limit to Attachment B.³⁸ Based on the same logic, the draft permit under consideration should include a PAN limit based on the most restrictive soil types on site.

Yet, even a PAN limitation will not directly limit phosphorus application, and application of effluent at the “agronomic rate” often results in the over-application of phosphorus.³⁹ Accordingly, we are concerned by the absence of any limitation on the amount of phosphorus that may be land-applied under the draft permit.⁴⁰ At the planned irrigation rate of 54 in./yr,⁴¹ Sanderson proposes to apply 244 lbs. of total phosphorus per acre each year.⁴² Sanderson admits that the maximum phosphorus uptake predicted, based on the proposed cover crops, is well below the amount that will be applied.⁴³ Thus, the anticipated rate of phosphorus application significantly increases the likelihood of phosphorus runoff over the life of the permit, especially as the assimilative capacity of the soils decreases with time.⁴⁴

In sum, DWR should limit the risk of water pollution posed by Sanderson’s operations by including effluent limits that are either required by rule or otherwise necessary to protect groundwater and surface water resources.

D. The Draft Permit Authorizes Too Much Daily Flow.

While we urge DWR to include additional effluent limits to restrict the concentration of pollutants in Sanderson’s effluent, we are also concerned by the minimal protection afforded by

³⁶ U.S. EPA, *Preventing Eutrophication: Scientific Support for Dual Nutrient Criteria*, EPA-820-S-12-002, 1 (Dec. 2012), available at <http://water.epa.gov/scitech/swguidance/standards/criteria/nutrients/upload/NandPfactsheet.pdf>.

³⁷ 15A N.C. Admin. Code 02T .0103(1).

³⁸ Exhibit H (email from Nathaniel Thornburg, Division of Water Quality, Aquifer Protection Section, to Randy Sipe, Division of Water Quality, Aquifer Protection Section (Dec. 21, 2009)).

³⁹ A.M.S. McFarland, *Phosphorus Reductions in Runoff and Soils from Land-Applied Dairy Effluent Using Chemical Amendments: An Observation*, 16 *Tex. J. of Agric. & Nat. Resources* 47 (2003) (“Animal wastes are generally applied at a nitrogen (N) uptake rate for crops, leading to an over-application of phosphorus in relation to crop uptake.”).

⁴⁰ Relatedly, we note that the design phosphorus concentration is significantly less than that at Sanderson’s poultry processing plant in Kinston. Sanderson does not explain how it will achieve those lower concentrations when operations are initially commenced. Instead the applicant expresses an intent, but no clear plan, to use the results of phosphorus monitoring to mitigate phosphorus discharge.

⁴¹ Chas. N. Clark Assoc., *Design Calculations, Wastewater Treatment Facilities, Sanderson Farms, Inc., St. Pauls, North Carolina* 100 (Apr. 2015).

⁴² Nutter & Assoc., *Agronomic Report, Sanderson Farms Wastewater Irrigation System, St. Pauls, NC*, 5 (May 2015).

⁴³ *Id.* (“The design phosphorus loadings are above the [realistic yield expected] for each vegetative type.”)

⁴⁴ Hailin Zhang, *Evaluation of Sanderson Farms Wastewater Irrigation System Permit Application*, 3 (Sept. 21, 2015), Exhibit I.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 8 of 19

the *one* effluent limit currently in the draft permit.⁴⁵ As written, the permit limits the “Flow, in Conduit or thru Treatment Plant” to 1.4 million gallons per day (MGD).⁴⁶ We believe that authorizing the application of this much effluent to the 349 identified acres fails to protect groundwater and surface water resources in the vicinity of the spray fields. Because the loading rate should be derived from the “the most limiting factor of those considered (soil drainage, groundwater mounding analysis, nutrient limitation, or crop management activities),” we are concerned by potential inaccuracies in the evaluation of the likelihood of permitted operations to result in groundwater mounding.⁴⁷

By rule, Sanderson’s land treatment system must be “designed to maintain a one-foot vertical separation between the seasonal high water table and the ground surface.”⁴⁸ This regulation is necessary to “facilitate soil remediation effects of the applied waste.”⁴⁹ As explained by the EPA:

If water that infiltrates the soil and percolates vertically through the zone of aeration (also known as vadose zone or unsaturated zone) encounters a water table or an impermeable (or less permeable) layer, a groundwater “mound” will begin to grow. If the mound height continues to grow, it may encroach on the zone of aeration to the point where renovation capacity is affected. Further growth may result in intersection of the mound with the soil surface, which will reduce infiltration rates.⁵⁰

Special attention should be paid to the potential for groundwater mounding where, as at the proposed site for Sanderson’s processing plant, the underlying soil types are characterized by a shallow depth to the seasonal high water table.⁵¹

⁴⁵ We incorporate by reference the observations regarding the permitted flow rate made by Dr. Zhang and TetraTech. *See id.*; *TT Report*, *supra* note 33, §§ 3.2 & 3.3.

⁴⁶ WQ0037772 Version 1.0 app. A. The 1.4 MGD limit is equivalent to the average designed daily flow. *See* Chas. N. Clark Assoc., *Design Calculations, Wastewater Treatment Facilities, Sanderson Farms, Inc., St. Pauls, North Carolina* 105 (Apr. 2015).

⁴⁷ Memorandum from Ted L. Bush, Jr., Chief, Aquifer Protection Section, to the Aquifer Protection Section Central Office, *Water Balance Calculation Policy* 2 (Sept. 12, 2008) (hereinafter “*Water Balance Calculation Policy*”), available at http://portal.ncdenr.org/c/document_library/get_file?uuid=5f4eaf8b-1345-40b3-b768-d486b9a51ce6&groupId=38364.

⁴⁸ 15A N.C. Admin. Code 02T .0505(p).

⁴⁹ Memorandum from Ted L. Bush, Jr., Chief, Aquifer Protection Section, to the Aquifer Protection Section Central Office, *Groundwater Modeling Policy* 3 (May 31, 2007) (hereinafter “*Groundwater Modeling Policy*”), available at http://portal.ncdenr.org/c/document_library/get_file?uuid=06a29223-336a-40e4-93ff-41f95e6017ba&groupId=38364.

⁵⁰ U.S. EPA, *Process Design Manual: Land Treatment of Municipal Wastewater Effluents* § 3.6, EPA 625/R-06/016 U.S. (Sept. 2006).

⁵¹ For Lakeland series soils, the depth to the seasonal high water table is “below 60 inches”; for Norfolk series soils, the depth to the seasonal high water table is “typically between 30 and 60 inches”; and for the Wagram series, the depth to the seasonal high water table is “typically between 40 and 60 inches.” Nutter & Assoc., *Soil Evaluation, Sanderson Farms Wastewater Irrigation System, St. Pauls, NC*. 3.1 (May 1, 2015) (hereinafter “*Soil Evaluation*”).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 9 of 19

In order to meet the vertical separation requirements, applicants must conduct a groundwater mounding analysis. This analysis is a “direct outgrowth of the hydrogeologic investigation,” and most of the data utilized therein “should be acquired in the hydrogeologic investigation.”⁵² As such we are concerned by drastic inconsistencies in data provided in the Hydrogeologic Report and in data apparently utilized to conduct the groundwater mounding analysis. There is a stark contrast between the hydraulic conductivity rate derived from the hydrogeologic report (0.98 ft/day)⁵³ and the hydraulic conductivity values used in the groundwater mounding modeling (7.9 to 18.6 ft/day)⁵⁴ submitted by Sanderson.⁵⁵ The magnitude of groundwater mounding is inversely proportional to hydraulic conductivity, so overestimating the latter leads to underestimating the former.⁵⁶ Because Sanderson’s groundwater mounding analysis appears to rely on a hydraulic conductivity rate inconsistent with that derived from its own hydrogeologic investigation, the applicant’s calculations merit additional scrutiny.⁵⁷

Moreover, given these concerns about groundwater mounding, we urge DWR to “require that an evaluation be made to determine the potential impact of the waste disposal activity,” as provided in the Division’s groundwater modeling policy.⁵⁸ Specifically, we request that DWR require Sanderson to conduct groundwater pollutant fate and transport modeling to demonstrate how, despite the high density of irrigation and aggressive application rates, the land treatment system will protect adjacent groundwater and surface water resources.⁵⁹

⁵² *Groundwater Modeling Policy*, *supra* note 49, at 5.

⁵³ Nutter & Assoc., *Hydrogeologic Report, Sanderson Farms Wastewater Irrigation System, St. Pauls, NC*, 2.4 (May 4, 2015) (“Transmissivity is the product of hydraulic conductivity (K, ft/day) and aquifer saturated thickness (b, feet), or: $T = Kb$ ”) (hereinafter “*Hydrogeologic Report*”). According to the report, the saturated thickness of the surficial aquifer is 8.94 feet and the transmissivity is 8.8 ft²/day. This yields a hydraulic conductivity of 0.98 ft/day ($8.8/8.94=0.98$). Notably, even this basic calculation was wrong in the hydrogeologic report, underscoring the need for DWR to look closely at other calculations on which the applicant relies. *See id.* (“The average transmissivity determined from these two tests is 8.8 ft²/day, equivalent to a hydraulic conductivity of 0.99 ft/day”). The hydrogeologic report recommended use of a hydraulic conductivity rate of 0.99 ft/day in the groundwater mounding analysis. *Id.* (“A transmissivity value of 8.8 ft²/day is based on aquifer test data from the two observation wells closest to the pumping well; the equivalent hydraulic conductivity is 0.99 ft/day. The average specific yield for the two tests is .1106. These values of transmissivity, hydraulic conductivity, and specific yield will be used in a groundwater mounding analysis for the wastewater irrigation site.”).

⁵⁴ *Id.* app. H.

⁵⁵ *See TT Report*, *supra* note 33, § 3.2.1 (citing inconsistent values referenced in the Hydrogeologic Report and Groundwater Mounding Analysis).

⁵⁶ *Id.*

⁵⁷ Indeed, closer inspection may reveal that Sanderson also utilized other flawed data in its groundwater mounding analysis. While the Hydrogeologic Report states that the sandy clay loam to coarse sand aquifer media have a specific yield of 0.11, the reported porosity for these media ranges from 0.39 to .44. Sanderson may have conflated the two values and accordingly underestimated the risk of groundwater mounding posed by the designed land treatment system. *See TT Report*, *supra* note 33, § 3.2.1 (opining that use of porosity data in groundwater mounding analysis invalidates results).

⁵⁸ *Groundwater Modeling Policy*, *supra* note 49, at 3.

⁵⁹ *See TT Report*, *supra* note 33, at § 3.3.2.7.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 10 of 19

E. The Draft Permit Does Not Require Sufficient Monitoring of Surface and Groundwater Parameters.

Because we are concerned about the potential for Sanderson’s operations to impact surface water and groundwater quality, we urge DWR to require additional monitoring to document and enable appropriate response to, resulting water pollution. As written, the draft permit requires groundwater monitoring, including monitoring for ammonia, and monitoring of the effluent from the wastewater treatment facility. These minimal requirements do not adequately protect surface water and groundwater at and near the proposed facility. Notably, no surface water monitoring requirements are included in the draft permit; sufficient groundwater *and* surface water monitoring must be required to ensure adequate protection of water quality.⁶⁰ DWR has the authority to require monitoring “necessary to ensure groundwater and surface water protection.”⁶¹ We request the following modifications to the draft permit with regard to groundwater and surface water monitoring:

- Require baseline groundwater testing of all parameters included in the draft permit before operations begin;
- Require up-gradient groundwater quality monitoring of all parameters included in the draft permit before operations begin and for the life of the permit;
- Amend the groundwater monitoring requirements to require testing four times annually;
- Require surface water quality monitoring for the following parameters: total nitrogen, total phosphorus, fecal coliform, ammonia, dissolved oxygen (“DO”), pH, chlorophyll-a and nitrate;
- Require establishment of surface water monitoring location upstream of the Sanderson facility on Big Marsh Swamp before operations begin and for the life of the permit; and
- Require surface water monitoring at all sampling sites four times annually, concurrently with groundwater monitoring.

The draft permit requires Sanderson to monitor groundwater at seven monitoring wells at locations to be determined for total organic carbon, chloride, fecal coliform, ammonia-nitrogen, nitrate-nitrogen, pH, phosphorus, and total dissolved solids.⁶² We approve of the list of parameters for which monitoring must be conducted, but believe that monitoring should be conducted more frequently. Monitoring is required only three times each year after operations

⁶⁰ Sanderson is required to monitor surface water quality pursuant to the non-discharge permit for its Kinston facility. *See* WQ0034380 Attachment A (requiring surface water monitoring for the concentration of fecal coliform, ammonia nitrogen, nitrate nitrogen, total nitrogen, pH, and total phosphorus).

⁶¹ 15A N.C. Admin. Code 02T .0108(c).

⁶² Draft Permit, Attachment C. The draft permit fails to disclose the location of the groundwater monitoring wells. This information should be released by DWR before operations begin.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 11 of 19

have begun. We recommend increasing the frequency of groundwater monitoring from three times to four times annually, and specifically recommend monitoring in January, which is the most limiting month with respect to wastewater irrigation.⁶³ We also recommend installing an additional monitoring well in the up-gradient direction of groundwater flow, which will serve as a background quality well.⁶⁴

Concurrently with groundwater monitoring, DWR should require surface water monitoring of the following parameters four times annually: total nitrogen, total phosphorus, fecal coliform, ammonia, DO, pH, chlorophyll-a, and nitrate nitrogen.⁶⁵ In addition, DWR should establish a background-quality monitoring site upstream of the Sanderson facility on Big Marsh Swamp. According to Sanderson’s soils report, “[n]on-jurisdictional agricultural ditches are prevalent across the property,”⁶⁶ and “[s]ome of the ditches intersect the water table and are used to control surface drainage and/or lower the water table in low lying areas or bays.”⁶⁷ As noted by Sanderson, “[t]he surficial aquifer is the shallowest aquifer in the Coastal Plain, is largely unconfined, and is therefore the most susceptible to pollution from sources such as . . . agricultural runoff.”⁶⁸ Runoff and ponding are commonplace as part of wastewater irrigation systems because of insufficient storage and/or excessive loading rates.⁶⁹

DWR should also require surface water monitoring on-site and up-gradient of the proposed spray fields to provide additional protection of water bodies in and around the processing facility.⁷⁰ Big Marsh Swamp flows through the proposed facility’s site and ultimately flows into the Lumber River.⁷¹ In addition, drainage at the site is provided by Black Branch, Gum Branch, unnamed tributaries to Big Marsh Swamp, and several interconnected wetland

⁶³ See *Soil Evaluation*, *supra* note 51, at 8 (“Based on the hydrologic budget presented in the water balance (NAI, 2015b) the most limiting month with respect to wastewater irrigation is January. The maximum allowable irrigation in the month is 5.47 inches, or 1.23 inches/week. Utilizing the most limiting month as a capacity for year round operation ensures a conservative loading.”).

⁶⁴ See, N.C. Div. of Water Quality, *Land Application Self-Monitoring Program* 1, http://portal.nodenr.org/c/document_library/get_file?uuid=e8052681-01e8-4681-9bc7-46f7cfb440d3&groupId=38364 (last visited Oct. 1, 2015) (“A single monitoring well is also installed in the up-gradient direction of groundwater flow that serves as a background quality well.”).

⁶⁵ See Exhibit H (email correspondence between Randy Sipe, DWR, and Nathaniel Thornburg, DWR (Dec. 2009)).

⁶⁶ *Soil Evaluation*, *supra* note 51, at 2.1. See also U.S. Geological Survey, *Surface-Water Quality in Agricultural Watersheds of the North Carolina Coastal Plain Associated with Concentrated Animal Feeding Operations* (2015), Exhibit M, at 5 [hereinafter *USGS CAFO Report*] (“These drainage improvements lower the water table beneath agricultural fields, which increases the amount of land available for cultivation; however, the process of redirecting shallow groundwater beneath agricultural fields through tile drains and ditches can increase nutrient transport, particularly nitrate, in drainage water existing the fields to receiving streams. . . . elevated nitrate concentrations in shallow groundwater beneath agricultural fields have commonly been observed in the Coastal Plain, especially at fields receiving land applications of animal-waste manures.”)

⁶⁷ *Soil Evaluation*, *supra* note 51, at 2.4.

⁶⁸ *Hydrogeologic Report*, *supra* note 53, at 2.1.2 (May 4, 2015).

⁶⁹ *Water Balance Calculation Policy*, *supra* note 47, at 1.

⁷⁰ Surface water monitoring is required for Sanderson’s non-discharge facility in Kinston, NC for fecal coliform, ammonia, nitrate, total nitrogen, pH, and total phosphorus. See Exhibit J.

⁷¹ See Exhibits A and B illustrating the proximity of water bodies to the proposed processing plant and spray fields.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 12 of 19

slough systems.⁷² All of the water bodies adjacent to proposed spray fields are classified as Class C swamp waters,⁷² so the pH in these water bodies may be allowed to reach as low as 4.3 if the low pH is a result of natural conditions.⁷³ In addition, dissolved oxygen levels in these water bodies is permitted to be lower if the lower measurement is a result of natural conditions.⁷⁴ Baseline surface water monitoring to assess the pH and DO levels in these water bodies is important in order to evaluate whether any change in pH and/or DO levels is caused by natural conditions or anthropogenic causes.

III. **The Draft Permit Should Be Revised to Reflect the Required Analysis of Cumulative Effects.**

DWR should not make permitting decisions in a vacuum, but rather in recognition of the vulnerability of natural resources to the combined impact of permitted activities. However, as explained below, the draft permit evidences no consideration of the water quality impacts caused by existing permitted operations or threatened by future permitted operations. Yet, as explained below, this consideration is explicitly required by law.

A. **Legal Requirement for Consideration of Cumulative Effects**

Under North Carolina law, DWR shall consider the “cumulative effects of permit decisions” when acting on “all permits,” including non-discharge permits, “so as to prevent violation of water quality standards.”⁷⁵ “Cumulative effects” are “impacts attributable to the *collective effects* of a number of projects and include the effects of additional projects similar to the requested permit in areas available for development in the vicinity.”⁷⁶ So DWR’s evaluation of a non-discharge permit application must not be conducted in isolation: it must consider not only other projects *already permitted* in the area, but even *potential, future* projects that that may contribute to aggregate impacts.

DWR must also consider the water quality impacts of activities that are related to the subject permit and “deemed permitted” by regulation. The agency retains substantial discretion

⁷² Sanderson, Form WWIS 11-13 § VII.8 (Apr. 30, 2015).

⁷³ See 15A N.C. Admin. Code 02B .0211(14). “The clustering of concentrated animal operations in certain geographic regions, particularly in basins of slow flowing [swamp streams], puts these water bodies particularly at risk.” Michael Mallin, *Impacts of Industrial Animal Production on Rivers and Estuaries*, AMERICAN SCIENTIST (2000), Exhibit L, at 3. Evidence of significant increase in oxygen demand was found in swamp streams that receive high levels of nutrient runoff. *Id.*

⁷⁴ *Id.* at 02B .0211(6).

⁷⁵ N.C. Gen. Stat. § 143-215.1(b)(2).

⁷⁶ *Id.* (emphasis added). “Cumulative effects” in the context of the North Carolina Environmental Policy Act has been defined as “environmental impacts resulting from incremental effects of an activity when added to other past, present, and reasonably foreseeable future activities regardless of what entities undertake such other actions. Cumulative impacts are the reasonably foreseeable impacts from individually minor but collectively significant activities.” 15A N.C. Admin. Code 01C .0103.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 13 of 19

in determining which activities are “deemed permitted” by regulation.⁷⁷ In light of this oversight responsibility, and because DWR must decide whether a particular activity qualifies to be “deemed permitted” by regulation, the broad language of the statute requires the agency to consider the effects of these “permit decisions” when issuing additional permits. Facilities “deemed permitted” by agency rules are “permit decisions” within the meaning of N.C. Gen. Stat. § 143-215.1(b)(2) and the water quality impacts of such decisions must be included in a “cumulative effects” analysis.⁷⁸

Of particular relevance, many dry litter poultry facilities are deemed permitted. Under North Carolina law, any operator of a dry litter poultry facility must obtain an individual or general permit for the facility if the facility qualifies as a concentrated animal feeding operation (“CAFO”) under federal regulations.⁷⁹ The EMC is responsible for developing a permit scheme, including individual and general permits, to govern animal operation and waste management systems for dry litter poultry facilities.⁸⁰ Pursuant to rules promulgated by the EMC, animal operations, including dry litter poultry facilities, which are not regulated under the federal CAFO regulations and meet other minimal specifications outlined in the statute, are “deemed permitted.”⁸¹

In sum, DWR must consider the “cumulative effects” of the water quality impacts of the subject permit, similar permitted activities in the receiving river basin, potential future projects in nearby areas “available for development,” and “deemed permitted” activities related to the subject permit. The draft permit evidences no consideration of these cumulative effects.

B. The Draft Permit Fails to Account for the Cumulative Effects of Permitted Activity.

In the context of this permitting decision, the “cumulative effects” analysis must include two key pieces of information. First, DWR must evaluate the water quality impacts of the

⁷⁷ See 15A N.C. Admin. Code 02T .1303(d) (granting DWR the discretion to deny a facility “deemed permitted” status).

⁷⁸ See Attorney General Advisory Opinion: Water Quality Permitting; G.S. 143-215.1 (Apr. 24, 1996), <http://www.ncdoj.gov/About-DOJ/Legal-Services/Legal-Opinions/Opinions/Water-Quality-Permitting.aspx> (finding that the Environmental Management Commission was authorized to request information from hog processing facilities regarding the cumulative effects of issuing a water quality permit in order to fully evaluate the cumulative effects of the facility).

⁷⁹ N.C. Gen. Stat. §143-215.10C(a) (citing the regulations found in 40 C.F.R. § 122 et seq. that apply to CAFOs). If an animal feeding operation does require a permit under the federal CAFO regulations, the facility must apply for an individual NPDES permit from the DEQ. See 15A N.C. Admin. Code 02T .1305.

⁸⁰ N.C. Gen. Stat. § 143-215.10C(a).

⁸¹ 15A N.C. Admin. Code 02T.1303(a) (2014); see also 15A N.C. Admin. Code 02T .0113 (2014) (listing other disposal systems that are deemed permitted and do not require coverage under an individual or general permit for operation). Activities deemed permitted under state regulations remain permitted unless and until DWR finds that the permitted activity or a specific operation conducting a permitted activity should no longer be deemed permitted. See 15A N.C. Admin. Code 02T .0113(d).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 14 of 19

Sanderson processing facility itself. These impacts are discussed in detail above.⁸² Second, DWR must consider the cumulative impacts of other permitted facilities operating in the vicinity of the Sanderson facility and how, in combination with Sanderson’s operations, these impacts affect water quality. As part of the analysis of past permitting decisions, DWR must consider the “cumulative effects” of the water quality impacts stemming from the poultry growing operations that will supply Sanderson’s St. Paul’s facility with the estimated 1.25 million chickens per week, including both new farms and existing farms.

Two large animal processing facilities are located in the vicinity of the proposed Sanderson facility: Mountaire Farms (non-discharge permit No. WQ0000484), located in Lumber Bridge, North Carolina, and Smithfield Packing Company (NPDES permit No. NC0078344), located in Tar Heel, North Carolina. The Mountaire Farms poultry processing facility processes 2.5 million broilers per week, twice the number expected at the Sanderson facility in St. Pauls, and discharges its wastewater onto open fields near the plant.⁸³ Notably, the Mountaire Farms plant is located approximately seven miles upstream of the proposed Sanderson processing facility on Big Marsh Swamp. Surface water run-off and groundwater contamination generated from the Mountaire Farms facility affects Big Marsh Swamp and ultimately the Lumber River. The Smithfield Packing Company facility is the largest processing plant in the world,⁸⁴ processing up to 36,000 hogs per day.⁸⁵ Nutrient-rich effluent from the Smithfield plant is discharged directly into surface waters in the Cape Fear River Basin each day.

Critically, when drafting a non-discharge permit for Sanderson, DWR must evaluate and consider the water-quality impact of the hundreds of chicken confinement barns supplying Sanderson’s plant. The chicken growing operations pose a much more substantial threat to water quality and the environment of eastern North Carolina than the actual processing facility itself. Sanderson plans to process 1.25 million broilers per week at its facility, which will require contracting with dozens of growers in and around Robeson County.⁸⁶ The poultry farms

⁸² Notably, land application of wastewater from animal processing facilities contributes more nutrients to the soil than any other type of non-discharge permit issued by DWR. See DWR, *A Summary of Treated Wastewater Land Application in 2010* 4 (Nov. 2013) (“Despite only making up a quarter of the total volume, animal processing facilities may be contributing a much larger percentage of the nutrients being applied through these permits due to the high concentration of nutrients in their effluent.”), available at <http://portal.ncdenr.org/web/wq/ps/gwp/groundwater-study-publications>, Exhibit G. In fact, the Lumber River Basin receives more than 500,000 gallons per square mile of land-applied treated wastewater—more than any other area in eastern North Carolina. *Id.* at 9. Robeson County is among the counties in the state receiving the most land-applied treated wastewater; in 2010, 1.6 billion gallons of wastewater were applied to land in Robeson County. *Id.* at Appendix D.

⁸³ See Gary Thorton, *Mountaire Farms is 100 years old and still growing*, WATTAGNET.COM (Aug. 7, 2014), <http://www.wattagnet.com/articles/22029-mountaire-farms-is-100-years-old-and-still-growing>.

⁸⁴ Meredith Davis, *Smithfield’s Tar Heel pork packing plant closed due to ammonia leak*, REUTERS (June 17, 2014), <http://www.reuters.com/article/2014/06/17/smithfield-foods-tarheel-idUSL2N00Y1D120140617>.

⁸⁵ N. C. DENR, *Fact Sheet for NPDES Permit Development: NPDES Permit No. NC0078344* (2007).

⁸⁶ *Sanderson Farms, Inc. Announces Site for New Poultry Complex in North Carolina & Company Comments on Recent Reports Regarding Avian Influenza*, SANDERSON FARMS, March 13, 2015, <http://www.sandersonfarms.com/press-releases/sanderson-farms-inc-announces-site-for-new-poultry-complex-in-north-carolina-company-comments-on-recent-reports-regarding-avian-influenza/>.

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 15 of 19

supplying Sanderson’s facility are or will be “deemed permitted” by regulation under 15A N.C. Admin. Code 02T.1303 (2015). Yet it is clear that DWR did not consider the environmental impact of these growing operations. Indeed, Sanderson’s permit application provided no specific information about the specific number of chicken farms with which it plans to contract, nor about their location.

The water quality impacts of industrialized poultry production are well-documented. Animal operations are a significant source of nitrogen pollution, both into the atmosphere and into soils.⁸⁷ The decomposition of manure, feed, and bedding material (which constitute dry litter) can produce ammonia nitrogen and nitrogen oxides, which ultimately redeposit in land and water as pollution.⁸⁸ Over 90 percent of ammonia emissions are attributable to animal agriculture in North Carolina.⁸⁹ Land application of poultry litter, ostensibly used as fertilizer, increases both soluble and particulate bound nutrients in soils and leads to excessive levels of nutrient pollution, including nitrogen and phosphorus, in the environment.

Over-application of animal manures to land can lead to nutrient surpluses that exceed the assimilative capacity of the soils and watershed to absorb excess nutrients and thus have a detrimental impact on water quality in the watershed.⁹⁰ Nutrient pollution poses a high risk to groundwater and surface water in eastern North Carolina. Soluble nutrients enter groundwater during base flow and enter surface waters through overland flow and interflow during storms, while particulate bound nutrients make their way to streams through overland flow.⁹¹

Moreover, the use of poultry litter as fertilizer leads to over-application of phosphorus on agricultural fields, as the ratio of nitrogen to phosphorus in poultry litter is much lower than is required by many common grasses.⁹² If fertilizer in the form of poultry litter is applied to meet soil nitrogen requirements, amounts of phosphorus up to five times more than what a typical crop requires may be applied, and runoff of excess phosphorus is likely to occur.⁹³ In fact, poultry growing operations account for the vast majority of excessive nitrogen and phosphorus on livestock farms.⁹⁴

⁸⁷ SELC incorporates by reference Section 3.4 of the *TT Report*, *supra* note 33.

⁸⁸ See *TT Report*, *supra* note 33, § 3.4.1; see also Michael Mallin, *supra* note 73, at 4.

⁸⁹ *TT Report*, *supra* note 33, § 3.4.1.

⁹⁰ See *USGS CAFO Report*, *supra* note 66, at 2; see also Mallin, *supra* note 73, at 3 (“The quantities of waste generated by [concentrated animal operations] are enormous, and disposal is a continuing challenge . . . poultry litter . . . [is a] highly concentrated source[] of nutrients such as phosphorus and nitrogen.”)

⁹¹ *TT Report*, *supra* note 33, § 3.4.1.

⁹² *Id.*; see also *USGS CAFO Report*, *supra* note 66, at 4 (discussing the over-application of phosphorus resulting from land application of swine waste manure to fields); Mallin, *supra* note 73, at 4 (indicating that some nitrogen and phosphorus are taken up by crop plants, but that by 1993 three counties in North Carolina “already generated more nitrogen and 18 counties more phosphorus in animal manure than could be utilized for the entire local crop production”). Given the explosive growth of poultry farming in eastern North Carolina in the last decade, it is reasonable to expect that crop plants’ nutrient assimilative capacity in these same areas is exceeded by land applied manure.

⁹³ *TT Report*, *supra* note 33, § 3.4.1.

⁹⁴ *Id.* at 11 (referencing Gollehon et al, 2001).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 16 of 19

In statements to the public, Sanderson has announced that it will contract with between 60 and 70 poultry farmers in a 35- to 40-mile radius of Sanderson’s feed mill in Kinston.⁹⁵ In total, 575 chicken houses will supply the St. Pauls processing facility.⁹⁶ These estimates are comparable to the 568 chicken houses that were planned for Sanderson’s proposed Nash County facility in 2011.⁹⁷ The poultry houses supplying Sanderson’s St. Pauls facility will produce over 126,680 tons of waste each year.⁹⁸

Stockpiled chicken litter contains approximately 36 pounds of total nitrogen and 55 pounds of phosphorus per ton of manure.⁹⁹ This amounts to approximately 4.6 million pounds of nitrogen and 7 million pounds of phosphorus *per year* generated from the poultry farms contracting with Sanderson in the Neuse and Cape Fear River Basins.¹⁰⁰ Substantial research indicates that excess nutrients generated by livestock farms enter groundwater, run off into surface waters, and are deposited from the atmosphere into nearby waterways.¹⁰¹ Conservatively assuming 10- to 25-percent export of nitrogen load and 4 to 9 percent of phosphorus load, receiving waters in the Cape Fear and Neuse River Basins will receive 460,000 to 1.2 million pounds of excess nitrogen pollution, and 280,000 to 630,000 pounds of excess phosphorus pollution, from Sanderson’s poultry operations.¹⁰² As a point of comparison, total annual nitrogen loading close to the Neuse Estuary is estimated between nine million and 11.6 million pounds and the total annual phosphorus loading is estimated between 1.2 and 1.7 million pounds.¹⁰³

Nutrient pollution caused by agricultural operations has long plagued the rivers and streams of eastern North Carolina, including those in the Cape Fear and Neuse River Basins.¹⁰⁴ Officials in North Carolina expressed concern about pollution caused by the waste from farm animals even prior to the 1972 amendment of the federal Clean Water Act.¹⁰⁵ In the years since, nutrient pollution has continued to degrade the quality of waters in the Cape Fear and Neuse

⁹⁵ Bob Shiles, *Sanderson: No plans for local chicken barns*, THE ROBESONIAN (Sept. 24, 2015), <http://robesonian.com/news/80210/sanderson-no-plan-for-local-chicken-barns>.

⁹⁶ *Id.*

⁹⁷ See *TT Report*, *supra* note 33, § 3.4.

⁹⁸ *TT Report*, *supra* note 33, § 3.4.3.

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ See, e.g., *USGS CAFO Report*, *supra* note 66, at 5.

¹⁰² *TT Report*, *supra* note 33, § 3.4.3.

¹⁰³ See *Total Nitrogen Loading Estimates at Ambient Stations J1890000, J8690000, AND J7850000 (Falls Lake Dam, Trent River near Trenton, and Fort Barnwell)*, N.C. DWR – Modeling and Assessment Branch (Oct. 22, 2014).

¹⁰⁴ “In 1937, the Natural Resources Committee report for the Roanoke-Chowan-Tar-Neuse-Cape Fear-Yadkin-Pee Dee basins found that ‘the same factors that have caused problems of water supply have produced serious pollution conditions in all parts of the basins of this area.’” David H. Howells, *Quest for Clean Streams in North Carolina: An Historical Account of Stream Pollution Control in North Carolina*, Report No. 258, WATER RESOURCES RESEARCH INSTITUTE OF THE UNIVERSITY OF NORTH CAROLINA (Nov. 1990)(hereinafter “WRRI 258”); see also *USGS CAFO Report*, *supra* note 66, at 2.

¹⁰⁵ WRRI 258, *supra* note 104, at 12 (documenting concerns expressed to the Pollution Control Committee in 1971).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 17 of 19

River Basins.¹⁰⁶ The Middle Cape Fear River is one of the many identified Clean Water Act 303(d) impaired water bodies in the Cape Fear River Basin; the Department is currently developing a Total Maximum Daily Load (“TMDL”) for nutrients for this section of the Cape Fear River.¹⁰⁷

DEQ is already in the process of updating its Nutrient Criteria Development Plan to address the growing concern with nutrient pollution in the State’s waters.¹⁰⁸ The Plan identifies the central Cape Fear River as an area with a “history of high nutrients” and targets this portion of the river as a top priority for the development of nutrient management criteria.¹⁰⁹ Further, numerous streams in the Cape Fear River Basin are classified as “nutrient sensitive waters,” indicating that the waters require nutrient management due to the growth of micro- and macroscopic vegetation.¹¹⁰ Manure accounts for the vast majority of total nitrogen inputs to the Cape Fear River Basin, contributing over 80 million kilograms of total nitrogen annually.¹¹¹

Similarly, excessive nutrient loading from nonpoint source runoff is the “primary stressor” the Neuse River Basin.¹¹² A TMDL was established for Total Nitrogen for the Neuse River Estuary in 1999 in an effort to limit excessive growth of chlorophyll-a in the estuary.¹¹³ Since that time, municipal and industrial dischargers in the Basin have spent more than \$300 million on technology improvements to reduce nitrogen discharged from their waste treatment facilities by 70 percent, yet data indicate little to no reduction in total nutrient loading in the Neuse Estuary.¹¹⁴ Non-point source pollution, including new animal operations, is largely

¹⁰⁶ See N.C. ENVIRONMENTAL MANAGEMENT COMMISSION, *North Carolina Water Pollution Control Plan* (July 1975) (“[L]ower sections of the Cape Fear . . . are believed on the verge of exhibiting symptoms of eutrophication”).

¹⁰⁷ See N.C. DENR – DIVISION OF WATER QUALITY, *North Carolina TMDLs*, http://portal.ncdenr.org/web/wq/ps/mtu/tmdl/tmdls#Tmdl_under_development (last visited Oct. 1, 2015).

¹⁰⁸ DWR, *North Carolina Nutrient Criteria Development Plan 2-3* (June 20, 2014), available at http://portal.ncdenr.org/c/document_library/get_file?uuid=9919ada6-f690-470f-a758-14034ef1e0c7&groupId=38364. The impairment of waters downstream of the proposed discharge is particularly relevant, as “effluent limitations or management practices for direct or indirect discharges of waste” must be developed “such that the water quality standards and best usage of receiving waters and all downstream waters will not be impaired.” 15A N.C. Admin. Code 02B .0203.

¹⁰⁹ See *North Carolina Nutrient Criteria Development Plan*, *supra* note 108, at 12.

¹¹⁰ See N.C. DENR – DIVISION OF WATER QUALITY, *Surface Water Classifications*, <http://portal.ncdenr.org/web/wq/ps/csu/classifications> (last visited Oct. 1, 2015).

¹¹¹ See *SPARROW Model Estimates of Nitrogen Delivered to Streams and Coastal Areas in Cape Fear Estuary, Long Bay, and New River Estuary*, U.S. GEOLOGICAL SURVEY, 2002,

http://water.usgs.gov/nawqa/pubs/nitrogen_loads/TN-CapeFear.pdf. Fertilizer contributes the second highest amount of total nitrogen to the Basin, amounting to approximately 25 million kilograms annually. *Id.*

¹¹² *Neuse River Basinwide Water Quality Plan*, N.C. DIV. OF WATER RES., 2009, Summary – 4 <http://portal.ncdenr.org/web/wq/ps/bpu/basin/neuse/2009>. The Plan identifies numerous research needs, including the need to quantify nutrient loading from run off from poultry facilities and land application facilities. See *id.* at 10. Notably, the lower Neuse Basin is also classified as Nutrient Sensitive Waters.

¹¹³ See N.C. DENR, *Phase II of the Total Maximum Daily Load for Total Nitrogen to the Neuse River Estuary, North Carolina 3* (Dec. 2001), available at http://portal.ncdenr.org/c/document_library/get_file?uuid=48bc46d8-c344-4f07-a656-7a211157c985&groupId=38364.

¹¹⁴ See Letter from Glenn Dunn, Poyner Spruill, representing Neuse River Compliance Association, to John Skvarla and Donald van der Vaart, DENR, 2 (Jan. 14, 2015).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 18 of 19

responsible for increases in nitrogen in the Neuse River Basin and counteracts the substantial investment of permitted dischargers in the basin.¹¹⁵ The proposed chicken processing plant and the new farms from which chickens will be sourced will undoubtedly affect nutrient levels in the Cape Fear River and Neuse River Basins, increasing the likelihood of toxic algal blooms and fish kills, risking drinking water supplies, and threatening public health.¹¹⁶

Nutrients are only one of many types of pollution stemming from livestock operations in eastern North Carolina. High levels of potassium, copper, and zinc are common in soil that received long-term application of poultry litter.¹¹⁷ Nitrate-nitrite and zinc levels exceeding groundwater and surface water standards are common.¹¹⁸ High levels of arsenic may also degrade surface and groundwater at land application sites. Moreover, poultry litter contains estrogen, veterinarian pharmaceuticals, pathogens, and anti-biotic resistant bacteria, which have been found to impact surface water and groundwater quality and pose a substantial risk to public health.¹¹⁹

Making matters worse is a weak regulatory scheme that “deem[s] permitted” most, if not all, of the poultry houses supplying Sanderson’s facility, and the fact that what regulations do apply to these facilities are rarely enforced by DEQ. These facilities are “deemed permitted,” and therefore do not require a permit from DEQ or the N.C. Department of Agriculture and Consumer Services.¹²⁰ DEQ regulations place minimal restrictions on the animal waste management practices at the facilities and shield from the public information regarding where, when, and how much poultry litter is applied.¹²¹ Researchers estimate that approximately 2,000 dry litter facilities operate in the coastal plain of North Carolina.¹²² Recent changes to state law shroud these farms in secrecy—records regarding the location, size, and waste management practices are kept confidential until and unless a citizen complaint is filed and a violation issued to the operator of the facility.¹²³ Citizens and environmental advocates have repeatedly filed complaints with DEQ, but to no avail.¹²⁴

¹¹⁵ *See id.*

¹¹⁶ *See USGS CAFO Report, supra* note 66, at 2. *See also* Mallin, *supra* note 7388, at 4 (“There is also a direct human health aspect to high nitrogen levels in groundwater. The U.S. Environmental Protection Agency’s drinking-water standard for well water is 10 mg/L of nitrate or less, a limit designed to prevent an infant blood disorder known as ‘blue baby syndrome,’ or methemoglobinemia. In the body nitrate is reduced to nitrite, which converts hemoglobin to methemoglobin, making red blood cells unable to carry oxygen.”).

¹¹⁷ *TT Report, supra* note 33, § 3.4.1.

¹¹⁸ *Id.*

¹¹⁹ *Id.*

¹²⁰ *See* N.C. Gen. Stat. § 143-215.10C; 15A N.C. Admin. Code 02T .1303.

¹²¹ *See* 15A N.C. Admin. Code 02T .1303.

¹²² *See USGS CAFO Report, supra* note 66, at 2 (The number of dry-litter poultry AFOs in the Coastal Plain is likely similar to the number of swine [Animal Feeding Operations].”) (citing oral communication with Keith Larick, DWR, June 2013).

¹²³ N.C. Gen. Stat. § 143-215.1D.

¹²⁴ *See* Travis Graves, *Commentary: What Happens There, Doesn’t Stay There*, SUN JOURNAL (Sept. 12, 2015), available at <http://www.newbernsj.com/article/20150912/OPINION/150919594>, Exhibit N (stating that the author has “documented and reported fifteen violations of poultry waste storage regulations to DENR this year alone, and they haven’t once enforced the law.”).

Nathaniel Thornburg
Division of Water Resources
Comments on Draft Permit WQ0037772
Page 19 of 19

Before issuing a final permit to Sanderson, DWR must gather and consider information regarding the cumulative effects of its decision to issue Sanderson a non-discharge permit for a wastewater irrigation system.

IV. **Conclusion**

For the reasons stated above, we object to the draft permit as written and respectfully request DWR incorporate the recommendations included herein. Please do not hesitate to contact us with any questions. Thank you for your consideration of these comments.

Sincerely,



Blakely E. Hildebrand
Associate Attorney



Will Hendrick
Associate Attorney

BEH/DWH/lap

Enclosures

cc: Gray Jernigan, Staff Attorney, Waterkeeper Alliance
Christine Ellis, River Advocate, Winyah River Foundation
Kemp Burdette, Cape Fear Riverkeeper, Cape Fear River Watch
Heather Jacobs Deck, Tar-Pamlico Riverkeeper, Sound Rivers
Travis Graves, Lower Neuse Riverkeeper, Sound Rivers
Matthew Star, Upper Neuse Riverkeeper Sound Rivers

EXHIBIT INDEX

Exhibit	Description
A	Map of drinking water wells in and around proposed site and sprayfield boundaries
B	Maps reflecting the State Natural, Scenic, and Recreational River Designation for Lumber River; Federal Wild and Scenic River Designation for Lumber River
C	Notice of Violation issued to Sanderson Farms by N.C. Department of Environmental Quality (Sept. 25, 2015)
D	Summary of Notices of Violation issued to Sanderson Farms’ Mississippi facilities
E	Compilation of U.S. Environmental Protection Agency – Enforcement and Compliance History Online Database Reports for Sanderson Farms facilities located outside of North Carolina
F	Tetra Tech Report: Review of non-discharge permit application and draft permit for Sanderson Farms, Inc. chicken processing facility in Robeson County, North Carolina (Sept. 29, 2015)
G	Michael Tutwiler (DENR-DWR), <i>A Summary of Treated Wastewater Land Application in 2010</i> (Nov. 2013)
H	Email Exchange – Randy Sipe, N.C. Division of Water Quality, Aquifer Protection Section & Nathaniel Thornburg, N.C. Division of Water Quality, Aquifer Protection Section (December 2009)
I	Dr. Hailin Zhang Report: Evaluation of Sanderson Farms Wastewater Irrigation System Permit Application (Sept. 21, 2015)
J	Permit No. WQ0034380 issued to Sanderson Farms facility in Kinston, N.C.
K	Map of wetlands in and around proposed site and sprayfield boundaries
L	Michael Mallin, <i>Impacts of Industrial Animal Production on Rivers and Estuaries</i> (2000)
M	<i>Surface-Water Quality in Agricultural Watersheds of the North Carolina Coastal Plain Associated with Concentrated Animal Feeding Operations</i> , U.S. Geological Survey (2015)
N	Travis Graves, <i>What happens there, doesn’t stay there</i> , New Bern Sun Journal (Sept. 12, 2015)
O	Kemp Burdette, <i>Don’t play chicken with river</i> , Wilmington Star News (Sept. 16, 2015)
P	Christine Ellis, <i>How will Sanderson Farms affect St. Pauls?</i> , Fayetteville Observer (Sept. 13, 2015)
Q	<i>Custom Soil Resource Report for Cumberland County, North Carolina, and Robeson County, North Carolina</i> , U.S. Department of Agriculture – Natural Resources Conservation Service (2015)

Thornburg, Nathaniel

From: Will Hendrick <whendrick@selcnc.org>
Sent: Friday, October 02, 2015 4:02 PM
To: Thornburg, Nathaniel
Subject: SELC Exhibits A-G
Attachments: SELC Exhibits A-G.zip.zip_renamed

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Important

Exhibits A-G are attached (the file had to be compressed because it includes maps that are too large to send otherwise). Please let me know if you have any difficulty accessing the file.

Will Hendrick
Associate Attorney
Southern Environmental Law Center
601 W. Rosemary Street, Suite 220
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(919) 967-1450
whendrick@selcnc.org

This electronic message and any attached files are confidential and are intended solely for the use of the addressee(s) named above. This communication may contain material protected by attorney-client, work product or other privileges.

EXHIBIT A

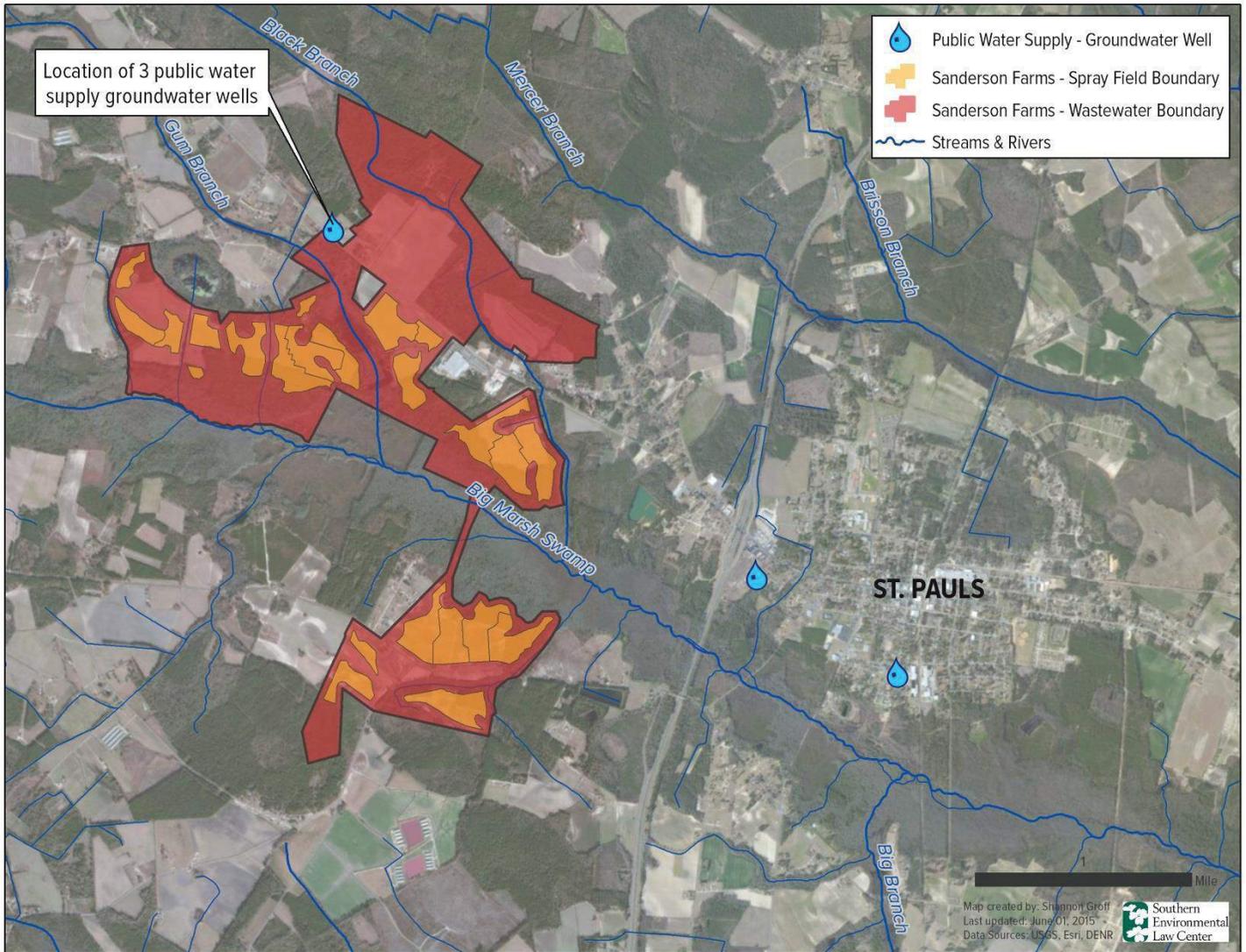
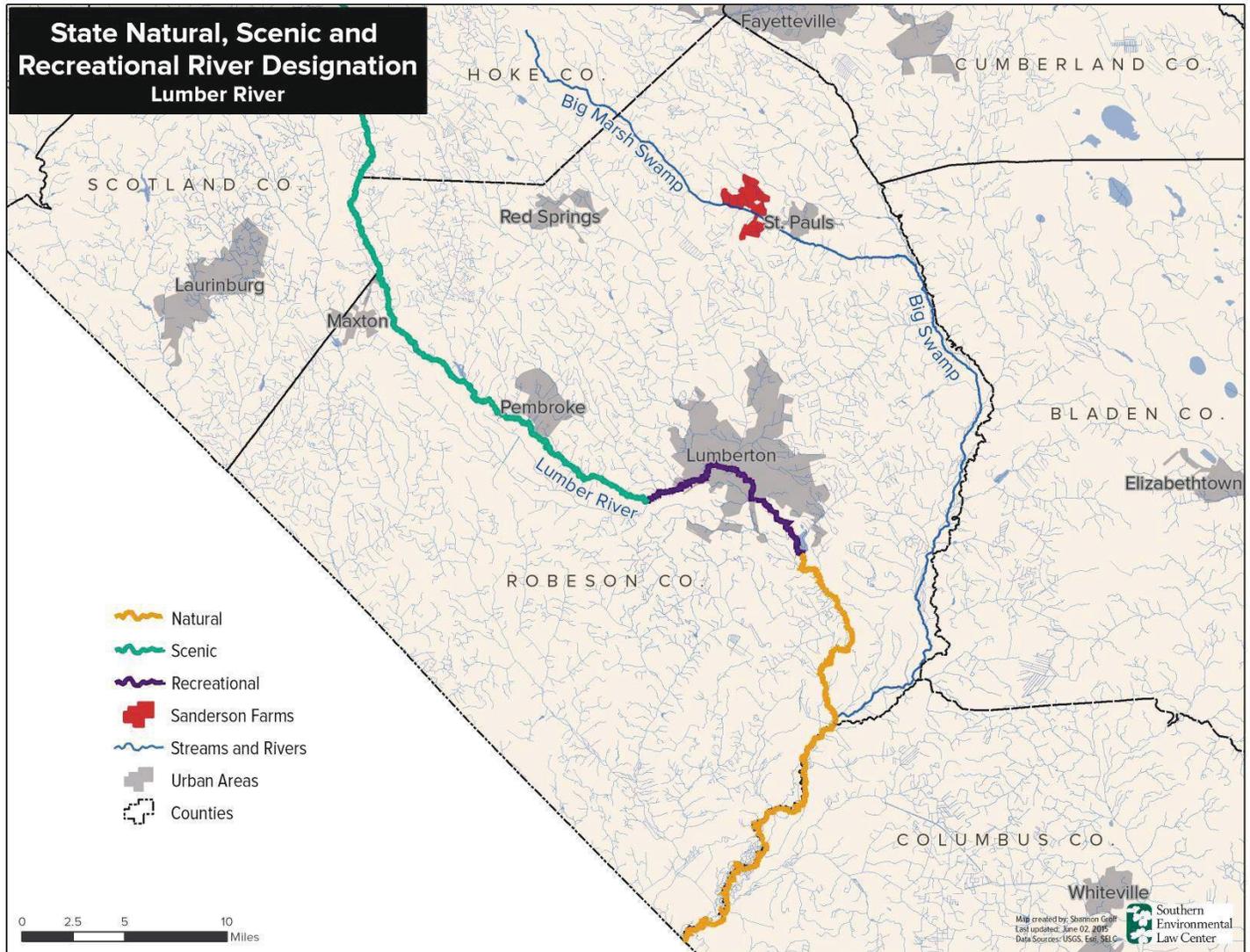


EXHIBIT B



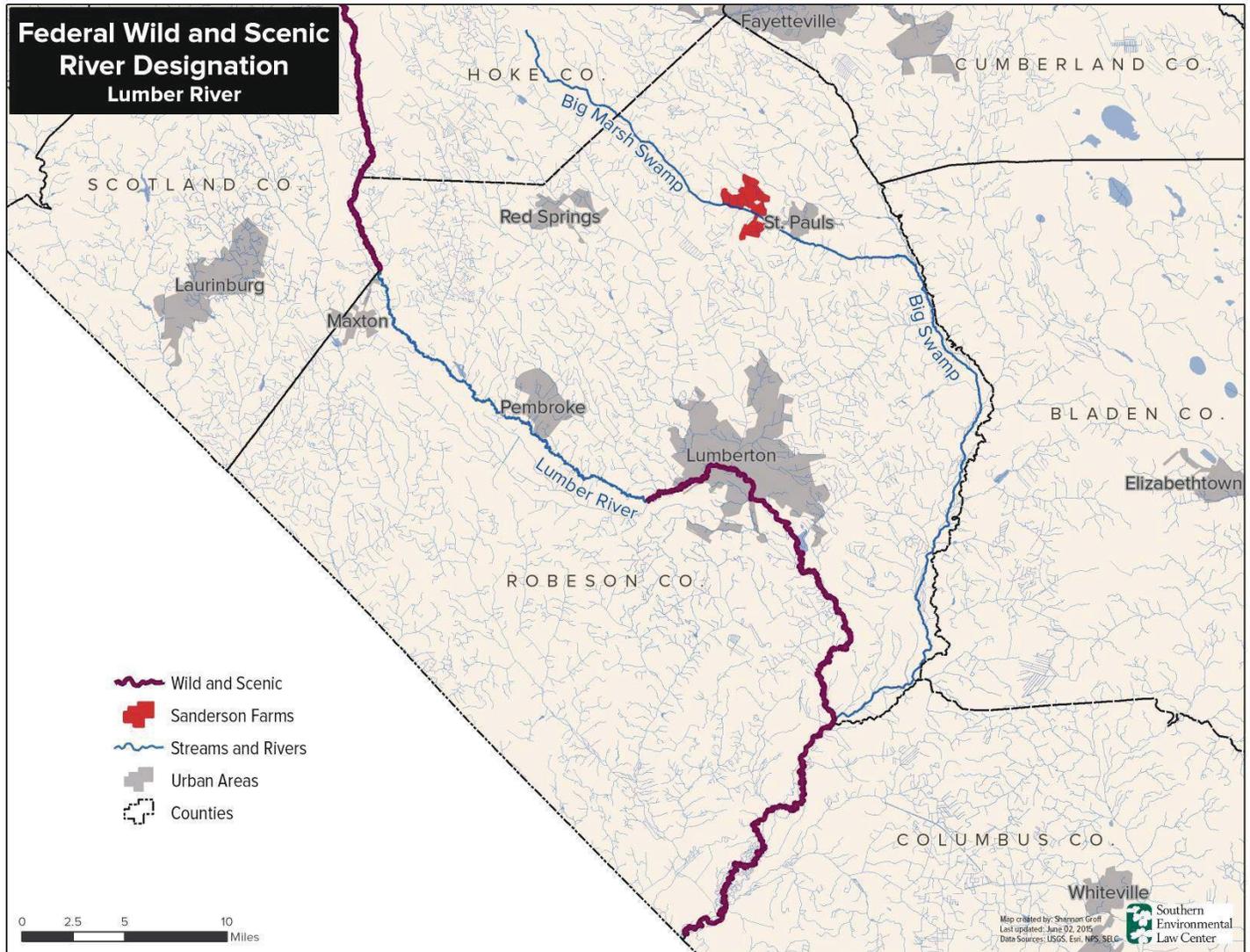


EXHIBIT C

North Carolina Department of Environmental Quality

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

September 25, 2015

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
7012 3050 0001 9398 4811

Bob Billingsley – Director of Development
Sanderson Farms, Inc. (Processing Division)
Post Office Box 988
Laurel, Mississippi 39941-4109

Subject: **Notice of Violation/With Intent to Enforce**
NOV-2015-CV-0007
Sanderson Farms – St. Pauls Facility
Permit No. WQ0037772 (DRAFT emailed 26 August 2015 to Sanderson Farms)
Robeson County

Dear Mr. Billingsley:

You are hereby notified that the Fayetteville Regional Office of the Division of Water Resources is considering taking enforcement action for a violation of North Carolina General Statute 143-215.6A (2), failing to secure a permit required by North Carolina General Statute 143-215.1(a) (2) and codified under 15A NCAC 02F .0104 ACTIVITIES WHICH REQUIRE A PERMIT before starting construction at the Sanderson Farms Incorporated – St. Pauls facility. Sanderson Farms has been emailed a DRAFT permit on 26 August 2015 for a wastewater treatment and irrigation system for the subject facility. Documentation of the violation of General Statutes and WASTE NOT DISCHARGED TO SURFACE WATERS rule are provided below by the Division of Water Resources:

Violation 1: Starting Construction without a valid permit:

A public hearing was held for the DRAFT permit (WQ0037772) on the evening of 17 September 2015 in the Town of St. Pauls, Robeson County, North Carolina. Several commentors stated that construction had started at the Sanderson Farms – St. Pauls facility prior to the issuance of a final permit to Sanderson Farms Incorporated. On 18 September 2015, Division of Water Resources (DWR) personnel visited the site and documented (photographs) excavation activities taking place in the vicinity of the proposed wastewater treatment infrastructure (holding lagoon, waste sludge lagoon and anaerobic lagoon) consistent with the site plan application prepared by Chas. N. Clark Associates (CNC). An equipment operator, with Allen Grading Company, was questioned about the area of excavation that was being undertaken. The operator produced a set of site plans from a Allen Grading company vehicle and indicated that the soil being excavated was from the holding lagoon. Upon further discussion, the operator stated that the floor of the holding lagoon was at “rough grade”.

Bob Billingsley
Page 2
September 25, 2015

Required Corrective Action for Violation 1:

Upon receipt of this Notice of Violation (either by US Mail or email) cease any and all construction/grading activities related to the proposed wastewater infrastructure (holding lagoon, anaerobic lagoon, waste sludge lagoon, clarifier, aeration basin, anoxic basin, etc.) at the Sanderson Farms – St. Pauls facility.

If additional fill soils are needed to continue grading activities on the production facility foundation; seek other sources of borrow from on-site locations (i.e. proposed stormwater basins, dedicated borrow areas or off-site sources near the Sanderson Farms – St. Pauls facility).

Please be advised that construction of the proposed wastewater treatment facilities without a valid permit is a violation of North Carolina General Statute 143-215.1 and may subject Sanderson Farms Incorporated to appropriate enforcement action(s) in accordance with North Carolina General Statute 143-215.6A. Civil penalties of up to \$25,000 per day per violation may be assessed for failure to secure a valid permit required by North Carolina General Statute 143-215.1 prior to starting construction of any wastewater treatment facilities.

If you have an explanation for the violation or documentation that you wish to present to the Division of Water Resources; please respond in writing to the Fayetteville Regional office within **ten (10)** days after receipt of this Notice. Your information will be reviewed and considered when making a determination of whether to proceed with an enforcement action and administrative penalty.

Please note that this Notice does not prevent the Division of Water Resources from taking additional enforcement action(s) for this violation if not corrected or for any future violations

If you have any questions concerning this matter, please do not hesitate to contact me at (910) 433-3326 or Jim Barber at (910) 433-3340.

Sincerely,



Belinda S. Henson
Regional Supervisor
Division of Water Resources
Water Quality Regional Operations Section

cc: Non-Discharge Central Office File
Non- FRO File
Nathaniel Thornburg, NDPU Supervisor (electronic copy)

EXHIBIT D

The following is a summary of Notices of Violation (NOVs) submitted by the Mississippi Department of Environmental Quality (MDEQ), denoting violations of the discharge permits issued to Sanderson Farms, Inc., for operation of chicken processing facilities located in Hazelhurst, McComb, and Collins, MS.

Hazelhurst, MS Facility- MS0044725

3/5/10- Violation of the permit limits on monthly average of **total nitrogen**. Permit limit (103 mg/l) was **exceeded by 15%**, as the reported value for the month of January 2010 was 118 mg/l.

6/2/10- Violation of permit limits on daily maximum and monthly average concentration of **total suspended solids**. The permit limit for monthly average concentration (20 mg/l) was **exceeded by 5%**, as the reported value for the month of February 2010 was 21 mg/L. Also, the permit limit for daily maximum concentration (30 mg/l) was **exceeded by 40%** when the reported value for an unspecified date in February 2010 was 42 mg/l.

2/8/11- Noting that "the **wrong BOD value was recorded** on the previously submitted discharge monitoring report" for November 2010. That DMR resulted in NOV (letter dated 1/25/11), which was rescinded upon receipt by MDEQ of corrected report.

8/18/11- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 52%**, as the reported value for the monitoring period running from 7/1/11 to 7/31/11 was 609 colonies/100ml.

9/23/11- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 1717%**, as the reported value for the monitoring period running from 8/1/2011 to 8/31/11 was 7280 colonies/100ml. (Note: the listed percentage exceedance is that stated in the NOV. In actuality, 7280 is 1820% of 400).

8/7/12- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 332%**, as the reported value for the monitoring period running from 6/1/12 to 6/30/12 was 7280 colonies/100ml. (Note: the listed percentage exceedance is that stated in the NOV. In actuality, 7280 is 1820% of 400).

2/25/13- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 16%**, as the reported value for the monitoring period running from 10/1/12 to 10/31/12 was 463 colonies/100ml.

McComb, MS Facility- MS0045021

8/25/09- Violation of permit limits on the daily maximum concentration of **total suspended solids**. The permit limit for daily maximum concentration (30 mg/l) was **exceeded by 7%**, as the reported value for an unspecified date in February 2009 was 32 mg/l.

2/25/13- Violation of permit limits on the monthly average concentration of **total suspended solids**. The permit limit for monthly average concentration (20 mg/l) was **exceeded by 5%**, as the reported value for an unspecified date in December 2012 was 21 mg/l.

5/1/14- Violation of permit limits on the daily maximum concentration and monthly average concentration of **ammonia**. The permit limit for daily maximum concentration (8mg/l) was **exceeded by 13%**, as the reported value for an unspecified date in June 2013 was 9 mg/l. The permit limit for monthly average concentration (4 mg/l) was **exceeded by 75%**, as the reported value for the month of June 2013 was 7 mg/l.

5/1/14- Violation of permit limits on the daily maximum concentration concentration of **ammonia**. The permit limit for daily maximum concentration (8mg/l) was **exceeded by 50%**, as the reported value for an unspecified date in June 2013 was 12 mg/l. (Note: NOV lists reported value as permit value).

Collins, MS Facility- MS0002089

8/25/09- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 300%**, as the reported value for the monitoring period running from 8/1/08 to 8/31/08 was 1600 colonies/100ml.

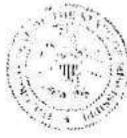
12/4/09- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 25%**, as the reported value for the monitoring period running from 10/1/09 to 10/31/09 was 500 colonies/100ml.

6/23/10- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 300%**, as the reported value for the monitoring period running from 5/1/10 to 5/31/10 was 1600 colonies/100ml.

10/26/10- Violation of permit limits on the daily maximum concentration of **fecal coliform**. Permit limit (400 colonies/100ml) was **exceeded by 300%**, as the reported value for the monitoring period running from 8/1/10 to 8/31/10 was 1600 colonies/100ml.

3/24/11- Violation of permit limits on daily maximum and monthly average concentration of **total suspended solids**. The permit limit for monthly average concentration (20 mg/l) was **exceeded by 45%**, as the reported value for the month of February 2011 was 29 mg/L. Also, the permit limit for daily maximum concentration (30 mg/l) was **exceeded by 193%** when the reported value for an unspecified date in February 2010 was 88 mg/l. Violation of permit limits on daily maximum concentration and monthly average concentration of **ammonia**. The permit limit for daily maximum concentration (8 mg/l) was **exceeded by 525%**, as reported values for an unspecified date in February 2011 were 50 mg/l. The permit limit for monthly average concentration (4 mg/l) was **exceeded by 550%**, as the reported value for the month of February 2011 was 26 mg/l.

5/1/14- Violation of permit limits on monthly average concentration of **total nitrogen**. The permit limit for monthly average concentration (147 mg/l) was **exceeded by 16%**, as the reported value for the month of August 2013 was 171 mg/l.



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

March 5, 2010

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
Copiah County
Water - NPDES Permit No. MS0044725

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for January 2010, the following violation was noted:

Outfall [001A]:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
January 2010	(Concentration) Nitrogen, Total Monthly Avg.	103 MG/L	118 MG/L	15 %

We are in receipt of your February 10, 2010 response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

Brad Ratcliff
Agricultural Branch
Environmental Compliance and Enforcement Division

Agency Interest No. 1092
ENF20100001



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 2, 2010

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 765
Hazlehurst, Mississippi 39083

Re: Notice of Violation
Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
Copiah County
Water - NPDES Permit No. MS0044725

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for February 2010, the following violations were noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
February 2010	Total Suspended Solids Monthly Avg. Concentration	20 MG/L	21 MG/L	5 %
February 2010	Total Suspended Solids Daily Max. Concentration	30 MG/L	42 MG/L	40 %

We are in receipt of your February 26, 2010 response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

Agency Interest No. 1092
ENF20100002

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Ratcliff".

Brad Ratcliff
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

February 8, 2011

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, MS 394410988

Dear Ms. Flick:

Re: No Further Action Determined

- ✓ Sanderson Farms Inc, Hazlehurst Processing Division
- ✓ Hazlehurst, Mississippi
- ✓ Copiah County
- ✓ Water - NPDES Permit No. MS0044725

The Mississippi Department of Environmental Quality has received and reviewed the revised discharge monitoring report for November 2010 submitted on January 28, 2011. Based on our review of your response, it appears that the wrong BOD value was recorded on the previously submitted discharge monitoring report. Therefore the NOV is rescinded and no further action will be taken.

Be advised that the Department will continue reviewing DMR data on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties.

If you have any questions or comments regarding this matter, please contact me at (601) 961-5050.

Sincerely,

A handwritten signature in black ink that reads "Azzam Abumirshid".

Azzam Abumirshid, P.E., Chief
Agricultural Branch
Environmental Compliance and Enforcement Division

Agency Interest No. 1092
ENF20110001

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none">Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.Print your name and address on the reverse so that we can return the card to you.Attach this card to the back of the mailpiece, or on the front if space permits.	<p>Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) _____ C. Date of Delivery _____</p>
<p>1. Article Addressed to:</p> <p>Ms. Brenda Flick Sanderson Farms Inc Hazlehurst Processing Division P.O. Box 988 Laurel, MS 39440</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7009 1410 0000 2468 7683</p>

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

UNITED STATES POSTAL SERVICE

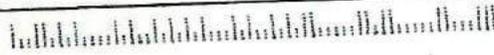
27 JAN 2011 PM 1 17



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

Attention: *Azzam Alkumrshid*
Mississippi Department of Environmental Quality
Environmental Compliance & Enforcement Division
Office of Pollution Control
P. O. Box 2261
Jackson, Mississippi 39225





STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

January 25, 2011

CERTIFIED MAIL 7009 1410 0000 2468 7683

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, Mississippi 39440

Re: Notice of Violation
Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
Copiah County
Water - NPDES Permit No. MS0044725

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for November 2010, the following violation was noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
11-1-2010 – 11-30-2010	BOD5	26 mg/l daily max.	34 mg/l	31%

Please respond in writing by February 15, 2011, of the probable cause of this violation and any remedial actions taken to assure future compliance with permit requirements. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5050.

Sincerely,

Azzam Abumirshid, P.E., Chief

Agricultural Branch

Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1092
ENF20110001

OFFICE OF POLLUTION CONTROL

POST OFFICE BOX 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us

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STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 18, 2011

CERTIFIED MAIL 7009 1410 0000 2467 8605

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, Mississippi 39440

- Re: Notice of Violation and No further Action
- ✓ Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
 - ✓ Copiah County
 - ✓ Water - NPDES Permit No. MS0044725

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for July 2011, the following violation was noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
07-01-2011 – 07-31-2011	Fecal coliform, daily max.	400 colonies/100ml	609 colonies/100ml	52%

We are in receipt of your July 25, 2011, response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5050.

Sincerely,

Azzam Abumirshid
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1092
ENF20110002

7009 1410 0000 2467 8605

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none">■ Complete items 1, 2, and 3. Also complete Postnet if Restricted Delivery is desired.■ Print your name and address on the reverse so that we can return the card to you.■ Attach this card to the back of the mailpiece, or on the front if space permits.	<p>A. Signature <input type="checkbox"/> Agent <input type="checkbox"/> Address</p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
1. Article Addressed to: Ms. Brenda Flick Sanderson Farms Inc, Hazlehurst Processing Division P.O. Box 988 Laurel, MS 39440	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
2. Article Number (Transfer from service label)	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes
7009 1410 0000 2467 8605	

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-11



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

September 23, 2011

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, Mississippi 39440

- Re: Notice of Violation
- ✓ Sanderson Farms Inc, Hazlehurst Processing Division
 - ✓ Hazlehurst, Mississippi
 - ✓ Copiah County
 - ✓ Water - NPDES Permit No. MS0044725

Dear Flick:

After careful review of your Discharge Monitoring Reports for July 2011, the following violation was noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
08-01-2011 – 08-31-02011	Fecal coliform, daily max.	400 colonies/100ml	7280 colonies/100ml	1717%

We are in receipt of your September 22, 2011, response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

Azzam Abumirshid
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1092
ENF20110003



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 7, 2012

Ms. Brenda Flick
Sanderson Farms Inc, Hazlehurst Processing Division
PO Box 988
Laurel, Mississippi 39440

Re: Notice of Violation
Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
Copiah County
Water - NPDES Permit No. MS0044725

Dear Ms Flick:

After careful review of your Discharge Monitoring Reports for June 2012, the following violations were noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
6/1/2012 – 6/30/2012	Fecal coliform, daily max.	400 colonies/100ml	7280 colonies/100ml	332%

We are in receipt of your June 13, 2012, response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

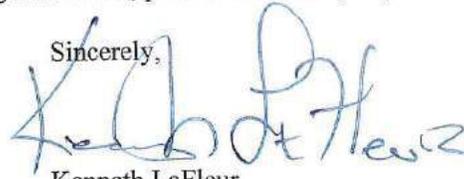
Be advised that the Department will continue reviewing DMR data on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision not to further pursue enforcement actions for the violation(s) observed on the referenced DMR does not forfeit our right to include these violation(s) in any future enforcement actions, should such an occurrence arise.

Agency Interest No. 1092
ENF20120001

OFFICE OF POLLUTION CONTROL

Brenda Flick
August 7, 2012
Page 2

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,


Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

February 25, 2013

CERTIFIED MAIL: 7008 3230 0001 9672 1438

Ms. Brenda Flick
Sanderson Farms Inc,
Hazlehurst Processing Division
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, Hazlehurst Processing Division
Hazlehurst, Mississippi
Copiah County
Water - NPDES Permit No. MS0044725

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for October 2012, the following violations were noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
10/1/2012 – 10/31/12	Fecal Coliform	400 col/100 ml Daily Max	463 col/100 ml Daily Max	16%

We received your response explaining the violations listed above on October 15, 2012. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

Be advised that the Department will continue reviewing DMR data on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision not to further pursue enforcement actions for the violation(s) observed on the referenced DMR does not forfeit our right to include these violation(s) in any future enforcement actions, should such an occurrence arise.

Agency Interest No. 1092
ENF20130001

OFFICE OF POLLUTION CONTROL

Brenda Flick
February 25, 2013
Page 2

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kenneth LaFleur', written over a horizontal line.

Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 25, 2009

Ms. Brenda Flick
Sanderson Farms Inc, McComb Processing
PO Box 988
Laurel, MS 39441-0988

Re: Notice of Violation
Sanderson Farms Inc, McComb Processing
~~McComb, Mississippi~~
Pike County
Water - NPDES Permit No. MS0045021

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for February 2009, the following violations were noted:

Outfall 001A:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
02/01/2008- 02/28/2009	Solids, Total Suspended	30 mg/L DAILY MX	32 mg/L DAILY MX	7%

Please respond in writing by September 11, 2009 of the probable cause of these violations and any remedial actions taken to assure future compliance with permit requirements. Further non-compliance may result in enforcement and penalties.

Agency Interest No. 915
ENF20090001

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Ratcliff", with a long horizontal flourish extending to the right.

Brad Ratcliff
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

February 25, 2013

CERTIFIED MAIL: 7011 1570 0002 1131 0710

Ms. Brenda Flick
Sanderson Farms Inc,
McComb Processing
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, McComb Processing
Summit, Mississippi
Pike County
Water - NPDES Permit No. MS0045021

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for [Enter Monitoring Period(s)], the following violations were noted:

Outfall [Enter Outfall Number]:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
12/1/12 – 12/31/12	Solids, total suspended	20 mg/l Monthly Avg	21 mg/l Monthly Avg	5%

We are in receipt of your January 10, 2013, response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

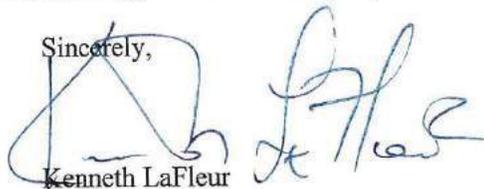
Be advised that the Department will continue reviewing DMR data on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision not to further pursue enforcement actions for the violation(s) observed on the referenced DMR does not forfeit our right to include these violation(s) in any future enforcement actions, should such an occurrence arise.

Agency Interest No. 915
ENF20130001

Brenda Flick\
February 25, 2013
Page 2

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,

A handwritten signature in blue ink, appearing to read 'K. LaFleur', is written over a circular stamp or seal that is partially obscured.

Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

May 1, 2014

CERTIFIED MAIL: 7011 1570 0002 1131 0888

Ms. Brenda Flick
Sanderson Farms Inc, McComb Processing
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, McComb Processing
Summit, Mississippi
Pike County
Water - NPDES Permit No. MS0045021

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for [Enter Monitoring Period(s)], the following violations were noted:

Outfall 001-A:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
6/1/2013 – 6/30/2013	Nitrogen, ammonia total	8 mg/l Daily Mx	9 mg/l Daily Mx	13 %
6/1/2013 – 6/30/2013	Nitrogen, ammonia total	4 mg/l Mo Avg	7 mg/l Daily Mx	75 %

We are in receipt of your July 3 2013, response explaining the violations listed above. Please keep us advised of your progress toward compliance. MDEQ does not intend to pursue additional enforcement actions for this violation at this time. Be advised that the Department will continue inspecting this facility on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision

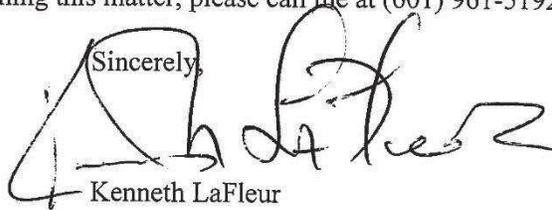
Agency Interest No. 1091
ENF20140001

Brenda Flick
May 1, 2014
Page 2

not to further pursue enforcement actions for the violation noted during this recent review of your facility's DMR does not forfeit our right to include this violation in any future enforcement actions, should such an occurrence arise. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kenneth LaFleur', written over a horizontal line.

Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB

BIKE CITY / MS0045021 / SANDERSON FARMS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none">Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.Print your name and address on the reverse so that we can return the card to you.Attach this card to the back of the mailpiece, or on the front if space permits.	<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Address</p> <p>B. Received by (Printed Name) C. Date of Delivery</p> <p>Jerry Millsap</p>
<p>1. Article Addressed to:</p> <p>Ms. Brenda Flick Sanderson Farms Inc PO Box 988 Laurel, MS 394410988</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:</p> <p>MAY - 5 2014</p> <p>3. Service Type</p> <p><input type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label)</p>	<p>7011 1570 0002 1131 0888</p>
<p>PS Form 3811, February 2004 RAL Domestic Return Receipt 102595-02-M-</p>	



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

May 1, 2014

CERTIFIED MAIL: 7011 1570 0002 1131 0871

Ms. Brenda Flick
Sanderson Farms Inc, McComb Processing
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, McComb Processing
Summit, Mississippi
Pike County
Water - NPDES Permit No. MS0045021

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for January, 2014, the following violations were noted:

Outfall 001-A:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
1/1/2014 – 1/31/2014	Nitrogen, ammonia total	12 mg/l Daily Mx	8 mg/l Daily Mx	50 %

We are in receipt of your April 2, 2014, response explaining the violations listed above. Please keep us advised of your progress toward compliance. MDEQ does not intend to pursue additional enforcement actions for this violation at this time. Be advised that the Department will continue inspecting this facility on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision

Agency Interest No. 1091
ENF20140001

7011 1570 0002 1131 0871

PIKE CITY / MISSOURI / SANDERSON FARMS

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Brenda Flick
Sanderson Farms Inc
PO Box 988
Laurel, MS 394410988

2. Article Number
(Transfer from service label)

7011 1570 0002 1131 0871

COMPLETE THIS SECTION ON DELIVERY

A. Signature
 Signature Agent
 Address

B. Received by (Printed Name)
JERRY MILLSON

C. Date of Delivery

D. Is delivery address different from item 1? Yes
If YES, enter delivery address below: No

MAY 5 2011

3. Service Type
 Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

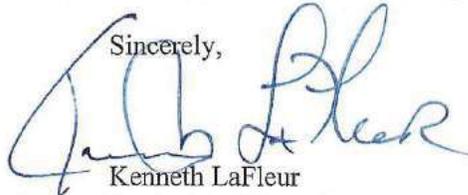
4. Restricted Delivery? (Extra Fee) Yes

Brenda Flick
May 1, 2014
Page 2

not to further pursue enforcement actions for the violation noted during this recent review of your facility's DMR does not forfeit our right to include this violation in any future enforcement actions, should such an occurrence arise. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kenneth LaFleur', written over a large, stylized initial 'K'.

Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

August 25, 2009

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 988
Laurel, MS 39441-0988

Re: Notice of Violation
Sanderson Farms Inc, Collins Processing Facility
Collins, Mississippi
Covington County
Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for August 2008, the following violations were noted:

Outfall 001A:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
08/01/2008- 08/31/2008	Coliform, Fecal	400/100 mL DA GEO	1600/100 mL DA GEO	300%

Please respond in writing by September 11, 2009 of the probable cause of these violations and any remedial actions taken to assure future compliance with permit requirements. Further non-compliance may result in enforcement and penalties.

Agency Interest No. 1094
ENF20090001

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

A handwritten signature in black ink, appearing to read "Brad Ratcliff", with a horizontal line extending to the right.

Brad Ratcliff
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID



FILE

STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

December 4, 2009

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, Collins Processing Facility
Collins, Mississippi
Covington County
Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for October 2009, the following violation was noted:

Outfall [001A]:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
October 2009	(Concentration) Coliform, Fecal DA GEO	400 #/100 ML	500 #/100 ML	25 %

Please respond in writing by Friday, December 18, 2009 of the probable cause of this violation and any remedial actions taken to assure future compliance with permit requirements. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

Brad Ratcliff
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1094
ENF20090002



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

June 23, 2010

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 988
Laurel, Mississippi 39441

Re: Notice of Violation
✓ Sanderson Farms Inc, Collins Processing Facility
✓ Collins, Mississippi
✓ Covington County
✓ Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for May 2010, the following violation was noted:

Outfall [001]:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
May 1, 2010 – May 31, 2010	Fecal Coliform	400#/100 ml	1600/100 ml	300%

We have received your May 17, 2010, response explaining the violations listed above. Please keep us advised of your progress toward compliance. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

Azzam Abumurshid
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1094
ENF20100001



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

*file
Covington County
SANDERSON FARMS,
Collins Processing Facility
NPDES - MS0002089*

October 26, 2010

CERTIFIED MAIL 7004 1350 0001 1491 7465

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 988
Laurel, Mississippi 39441

Re: Notice of Violation
Sanderson Farms Inc, Collins Processing Facility
Collins, Mississippi
Covington County
Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for August 2010, the following violation was noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
August 1, 2010 – August 31, 2010	Fecal Coliform	400#/100 ml	1600/100 ml	300%

Please respond in writing by November 17, 2010, of the probable cause of these violations and any remedial actions taken to assure future compliance with permit requirements. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5771.

Sincerely,

Azzam Abumirshid
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID

Agency Interest No. 1094
ENF20060001

7004 1350 0001 1491 7465

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none">■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.■ Print your name and address on the reverse so that we can return the card to you.■ Attach this card to the back of the mailpiece, or on the front if space permits.	<p>Signature <u>[Signature]</u> <input type="checkbox"/> Agent <input type="checkbox"/> Address</p>
<p>1. Article Addressed to: Ms. Brenda Flick Sanderson Farms Inc, Collins Processing Facility PO Box 988 Laurel, Mississippi 39441</p>	<p>B. Received by (Printed Name) <u>[Signature]</u> C. Date of Delivery <u>10-28-11</u></p>
<p>2. Article Number (Transfer from service label)</p>	<p>D. Is delivery address different from Item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p>
	<p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p>
	<p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>

7004 1350 0001 1491 7465

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-11



STATE OF MISSISSIPPI
HALEY BARBOUR
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

March 24, 2011

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 1329
Collins, Mississippi 39428

- ✓ Re: Notice of Violation and No further Action
- ✓ Sanderson Farms Inc, Collins Processing Facility
- ✓ Collins, Mississippi
- ✓ Covington County
- ✓ Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for February 2011, the following violations were noted:

Outfall 001:

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
02-01-2011 – 02-28-2011	TSS, Daily Max.	30.0 mg/l	88.0 mg/l	193%
02-01-2011 – 02-28-2011	TSS, MO. Avg.	20.0 mg/l	29.0 mg/l	45%
02-01-2011 – 02-28-2011	Ammonia-Nitrogen, Daily Max.	8.0 mg/l	50.0 mg/l	525%
02-01-2011 – 02-28-2011	Ammonia-Nitrogen, MO. Avg.	4.0 mg/l	26.0 mg/l	550%

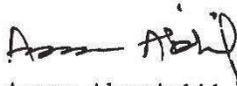
We are in receipt of your March 24, 2011, response explaining the violations listed above. No further action will be taken. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5050.

Agency Interest No. 1094
ENF20110001

If you have any questions concerning this matter, please call me at (601) 961-5050.

Sincerely,

A handwritten signature in black ink, appearing to read "Azzam Abumirshid".

Azzam Abumirshid
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: DID



FILE COPY

STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
TRUDY D. FISHER, EXECUTIVE DIRECTOR

May 1, 2014

CERTIFIED MAIL: 7011 1570 0002 1131 0895

Ms. Brenda Flick
Sanderson Farms Inc, Collins Processing Facility
PO Box 988
Laurel, MS 394410988

Re: Notice of Violation
Sanderson Farms Inc, Collins Processing Facility
Collins, Mississippi
Covington County
Water - NPDES Permit No. MS0002089

Dear Ms. Flick:

After careful review of your Discharge Monitoring Reports for August 2013, the following violations were noted:

Outfall 001-A

Monitoring Period	Parameter	Permit Requirement	Reported Value	Deviation
8/1/2013 – 8/31/2013	Nitrogen, total	147 mg/l MO AVG	171 mg/l MO AVG	16%

We are in receipt of your September 4 2013, response explaining the violations listed above. Please keep us advised of your progress toward compliance. MDEQ does not intend to pursue additional enforcement actions for this violation at this time. Be advised that the Department will continue inspecting this facility on a routine basis and future non-compliance may result in formal enforcement actions which may include monetary penalties. The Department's decision

Agency Interest No. 1094
ENF20130001

Brenda Flick
May 1, 2014
Page 2

not to further pursue enforcement actions for the violation noted during this recent review of your facility's DMR does not forfeit our right to include this violation in any future enforcement actions, should such an occurrence arise. Further non-compliance may result in enforcement and penalties.

If you have any questions concerning this matter, please call me at (601) 961-5192.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kenneth LaFleur', written over a faint circular stamp.

Kenneth LaFleur
Agricultural Branch
Environmental Compliance and Enforcement Division

cc: ECED DAB

(7011) 1570 0002 1131 0895 / MS D0022DB9 / SAIPRSD.1

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<p>7011 1570 0002 1131 0895</p> <ul style="list-style-type: none">Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.Print your name and address on the reverse so that we can return the card to you.Attach this card to the back of the mailpiece, or on the front if space permits.	1. Article Addressed to:		A. Signature <input checked="" type="checkbox"/> <i>J. Millsap</i> <input type="checkbox"/> Agent <input type="checkbox"/> Address
	Ms. Brenda Flick Sanderson Farms Inc, Collins Processing Facility PO Box 988 Laurel, MS 394410988		B. Received by (Printed Name) C. Date of Delivery <i>Jerry Millsap</i>
2. Article Number (Transfer from service label)		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
7011 1570 0002 1131 0895		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
PS Form 3811, February 2004		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
KAL		MAY - 5 2014	
Domestic Return Receipt		102595-02-M-	

EXHIBIT E

[Menu](#)



Detailed Facility Report

Facility Summary

SANDERSON FARMS, INC.
700 GA HWY 133, MOULTRIE, GA 31768 ⓘ

Facility Information (FRS)

FRS ID: 110023013969
EPA Region: 04
Latitude: 31.220856
Longitude: -83.790001
Locational Data Source: FRS
Industry: Food Manufacturing
Indian Country: N

Regulatory Interests

Clean Air Act: Operating Minor (GA0000001307100064), (100000192686)
Clean Water Act: Minor, Permit Terminated (GAU010333), Minor, Permit Effective (GAJ010333)
Resource Conservation and Recovery Act: No Information
Safe Drinking Water Act: No Information

Also Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 31788SNDRS77GAH

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Current Compliance Status	Qtrs in NC (of 12)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
CAA			No Violation	0	0					
CWA		12/02/2004	Noncompliance	2	0					

Related Reports:  CWA Effluent Charts  CWA Pollutant Loading Report  Air Pollutant Report

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110023013969					N	31.220856	83.790001
AIR	CAA	GA0000001307100064	Minor Emissions	Operating	CAANSPTS, CAASIP		N		
RMP	CAA	100000192686		ACTIVE					
ICP	CWA	GAU010333	Minor: Individual State Issued Permit (Non-NPDES)	Terminated		11/30/2009	N	31.103383	83.666348
ICP	CWA	GAJ010333	Minor: Individual State Issued Permit (Non-NPDES)	Effective		04/30/2019	N	31.15819	83.745869
TRI	EP313	31788SNDRS77GAH						31.220856	83.790001

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110023013969	SANDERSON FARMS, INC.	700 GA HWY 133, MOULTRIE, GA 31768
AIR	CAA	GA0000001307100064	SANDERSON FARMS, INC.	700 GEORGIA HWY 133 S, MOULTRIE, GA 31768
RMP	CAA	100000192686	SANDERSON FARMS, INC.	700 GA HWY 133, MOULTRIE, GA 31768
ICP	CWA	GAU010333	SANDERSON FARMS, INC.	GEORGIA HIGHWAY 133, MOULTRIE, GA 31788
ICP	CWA	GAJ010333	SANDERSON FARMS, INC.	700 GA HIGHWAY 133 S, MOULTRIE, GA 31788
TRI	EP313	31788SNDRS77GAH	SANDERSON FARMS INC	770 GA HWY 133 S, MOULTRIE, GA 31788

Facility SIC Codes

System	Identifier	SIC Code	SIC Desc
TRI	31788SNDRS77GAH	2015	Poultry Slaughtering And Processing
AIR	GA0000001307100064	2015	Poultry Slaughtering And Processing
ICP	GAJ010333	2015	Poultry Slaughtering And Processing
ICP	GAU010333	2015	Poultry Slaughtering And Processing

Facility NAICS Codes

System	Identifier	NAICS Code	NAICS Desc
RMP	100000192686	311615	Poultry Processing
TRI	31788SNDRS77GAH	311615	Poultry Processing
AIR	GA0000001307100064	999999	

Facility Tribe Information

Tribal Name	EPA Tribal ID	Distance to Tribe (miles)
No data records returned		

Enforcement and Compliance

Compliance Monitoring History (5 years)

Statute	Source ID	System	Inspection Type	Lead Agency	Date	Finding
CAA	GA0000001307100064	AIR	PCE Off-Site	State	07/07/2014	

Entries in italics are not considered inspections in official counts.

Compliance Summary Data

Statute	Source ID	Current SNC/HPV	Description	Current As Of	Qtrs in NC (of 12)
CAA	GA0000001307100064	No		09/26/2015	0
CWA	GAU010333			06/30/2015	0
CWA	GAJ010333			06/30/2015	1

Three Year Compliance Status by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	
CAA (Source ID: GA0000001307100064)		10/01-12/31 2012	01/01-03/31 2013	04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014	07/01-09/30 2014	10/01-12/31 2014	01/01-03/31 2015	04/01-06/30 2015	07/01-09/30 2015	
	Facility-Level Status	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	
	HPV History													
Violation Type		Programs Pollutants												
Historic Violations														
Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
CWA (Source ID: GAU010333)		07/01-09/30 2012	10/01-12/31 2012	01/01-03/31 2013	04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014	07/01-09/30 2014	10/01-12/31 2014	01/01-03/31 2015	04/01-06/30 2015	07/01-09/30 2015
	Facility-Level Status	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	Und
	SNC/RNC History													
CWA (Source ID: GAJ010333)		07/01-09/30 2012	10/01-12/31 2012	01/01-03/31 2013	04/01-06/30 2013	07/01-09/30 2013	10/01-12/31 2013	01/01-03/31 2014	04/01-06/30 2014	07/01-09/30 2014	10/01-12/31 2014	01/01-03/31 2015	04/01-06/30 2015	07/01-09/30 2015
	Facility-Level Status	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	No Viol	In Viol	Und
	SNC/RNC History												V (NonRNCV)	

*Quarter 13 is draft/unofficial and has not been fully quality assured. Read more

Informal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date
No data records returned				

Formal Enforcement Actions (5 Years)

Statute	Source ID	Type of Action	Lead Agency	Date	Penalty	Penalty Description
No data records returned						

ICIS Case History (5 years)

Primary Law/Section	Case No.	Case Type	Lead Agency	Case Name	Issued/Filed Date	Settlement Date	Federal Penalty	State/Local Penalty	SEP Cost	Comp Action Cost
No data records returned										

Environmental Conditions

Water Quality

Permit ID	Combined Sewer System?	Number of CSO Outfalls	Watershed (HUC 8)	Watershed Name (HUC 8)	Watershed (HUC 12)	Watershed Name (HUC 12)	Receiving Waters	Impaired Waters	Impaired Class	Causes of Impairment(s) by Group(s)	Watershed with ESA-listed Aquatic Species?
GAU010333			03110203	WITHLACOOCHEE	031102030503	Little Creek-Okapilco Creek		No			Yes

Waterbody Designated Uses

REACH Code	Waterbody Name	Exceptional Use	Recreational Use	Aquatic Life Use	Shellfish Use	Beach Closure Within Last Year	Beach Closure Within Last Two Years
03110203000878		No	No	No	No	No	No

Air Quality

Non-Attainment Area?	Pollutant(s)
No	Ozone
No	Lead
No	Particulate Matter

Pollutants

TRI History of Reported Chemicals Released in Pounds per Year at Site i

TRI Pollution Prevention Report

TRI Facility ID	Year	Total Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs	Underground Injections	Releases to Land	Total On-site Releases	Total Off-site Releases
31788SNDRS77GAH2006				0		8,570	8,570	
31788SNDRS77GAH2007				0		25,790	25,790	
31788SNDRS77GAH2008				0		36,390	36,390	
31788SNDRS77GAH2009				0		58,400	58,400	
31788SNDRS77GAH2010				0		38,160	38,160	
31788SNDRS77GAH2011				0		40,950	40,950	
31788SNDRS77GAH2012	3,550			0		11,168	14,718	
31788SNDRS77GAH2013	19,880			0		15,200	35,080	
31788SNDRS77GAH2014	8,745			0		19,095	27,840	

TRI Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2006	2007	2008	2009	2010	2011	2012	2013	2014
AMMONIA								20,800	6,770
HYDROGEN SULFIDE							3,550	2,880	2,745
NITRATE COMPOUNDS	8,570	25,790	36,390	58,400	38,160	40,950	11,168	11,400	18,325

Demographic Profile

Demographic Profile of Surrounding Area (3 Miles)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 US Census and American Community Survey data, and are accurate to the extent that the facility latitude and longitude listed below are correct. The latitude and longitude are obtained from the EPA Locational Reference Table (LRT) when available.

Radius of Area:	3	Land Area:	98%	Households in Area:	4,683
Center latitude:	31.16	Water Area:	2%	Housing Units in Area:	5,214
Center Longitude:	-83.743611	Population Density:	454/sq.mi.	Households on Public Assistance:	99
Total Persons:	12,530	Percent Minority:	48%	Persons Below Poverty Level:	6,570
Race Breakdown		Persons (%)		Age Breakdown	
White:	7,437 (59.35%)	Child 5 years and younger:	1,022 (8.16%)		
African-American:	3,307 (26.39%)	Minors 17 years and younger:	3,271 (26.11%)		
Hispanic-Origin:	2,566 (20.48%)	Adults 18 years and older:	9,260 (73.9%)		
Asian/Pacific Islander:	93 (.74%)	Seniors 65 years and older:	1,850 (14.76%)		
American Indian:	56 (.45%)				
Other/Multiracial:	1,637 (13.06%)				
Education Level (Persons 25 & older)		Persons (%)		Income Breakdown	
Less than 9th Grade:	663 (8.96%)	Less than \$15,000:	994 (23.83%)		
9th through 12th Grade:	1,335 (18.05%)	\$15,000 - \$25,000:	927 (22.22%)		
High School Diploma:	3,161 (42.73%)	\$25,000 - \$50,000:	1,046 (25.07%)		
Some College/2-yr:	1,517 (20.51%)	\$50,000 - \$75,000:	611 (14.65%)		
B.S./B.A. or More:	721 (9.75%)	Greater than \$75,000:	594 (14.24%)		

[Menu](#)



Detailed Facility Report

Facility Summary

SANDERSON FARMS INC
2535 SANDERSON DRIVE, LAUREL, MS 39440 ⓘ

Facility Information (FRS)

FRS ID: 110016833630
EPA Region: 04
Latitude: 31.666944
Longitude: -89.160833
Locational Data Source: RMP
Industry: Food Manufacturing
Indian Country: N

Regulatory Interests

Clean Air Act: Operating Synthetic Minor (MS0000002806700072), (100000088503)
Clean Water Act: Minor, Permit Effective (MSP090697)
Resource Conservation and Recovery Act: Inactive () Other (MSD981759608)
Safe Drinking Water Act: No Information

Also Reports

Air Emissions Inventory (EIS): No Information
Greenhouse Gas Emissions (eGGRT): No Information
Toxic Releases (TRI): 39440SNDRS631SA

Enforcement and Compliance Summary

Statute	Insp (5 Years)	Date of Last Inspection	Current Compliance Status	Qtrs in NC (of 12)	Qtrs in Significant Violation	Informal Enforcement Actions (5 years)	Formal Enforcement Actions (5 years)	Penalties from Formal Enforcement Actions (5 years)	EPA Cases (5 years)	Penalties from EPA Cases (5 years)
CAA	1	09/13/2011	No Violation	0	0					
CWA		03/11/1998	No Violation	0	0					
RCRA			No Violation	0	0					

Related Reports:  CWA Effluent Charts  CWA Pollutant Loading Report  Air Pollutant Report

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110016833630					N	31.666944	-89.160833
AIR	CAA	MS0000002806700072	Synthetic Minor Emissions	Operating	CAASIP		N		
RMP	CAA	100000088503		ACTIVE					
ICP	CWA	MSP090697	Minor: Individual IU Permit (Non-NPDES)	Effective		07/31/2019	N	31.666472	-89.161611
TRI	EP313	39440SNDRS631SA						31.666944	-89.160833
RCR	RCRA	MSD981759608	Other	Inactive ()			N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address
FRS		110016833630	SANDERSON FARMS INC	2535 SANDERSON DRIVE, LAUREL, MS 39440
AIR	CAA	MS0000002806700072	SANDERSON FARMS, INC, LAUREL PROCESSING	2535 SANDERSON DRIVE, LAUREL, MS 39441
RMP	CAA	100000088503	SANDERSON FARMS, INC.	2535 SANDERSON DRIVE, LAUREL, MS 39441
ICP	CWA	MSP090697	SANDERSON FARMS INC	2535 SANDERSON DRIVE, LAUREL, MS 39440
TRI	EP313	39440SNDRS631SA	SANDERSON FARMS INC	2535 SANDERSON DR, LAUREL, MS 39440
RCR	RCRA	MSD981759608	SANDERSON FARMS, INC.	SANDERSON DRIVE, LAUREL, MS 39441

Facility SIC Codes

System	Identifier	SIC Code	SIC Desc
TRI	39440SNDRS631SA	2015	Poultry Slaughtering And Processing
TRI	39440SNDRS631SA	2048	Prepared Feeds
TRI	39440SNDRS631SA	2813	Industrial Gases
AIR	MS0000002806700072	2015	Poultry Slaughtering And Processing
ICP	MSP090697	2015	Poultry Slaughtering And Processing

Facility NAICS Codes

System	Identifier	NAICS Code	NAICS Desc
RMP	100000088503	311615	Poultry Processing
TRI	39440SNDRS631SA	311000	
TRI	39440SNDRS631SA	311615	Poultry Processing
AIR	MS0000002806700072	311615	Poultry Processing
ICP	MSP090697	311615	Poultry Processing

Facility Tribe Information

Tribal Name	EPA Tribal ID	Distance to Tribe (miles)
Mississippi Choctaw Reservation	162	11.42