

**STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**HEARING OFFICER'S REPORT AND RESPONSE TO PUBLIC  
COMMENTS FOR THE RENEWAL OF THE STATE GENERAL  
PERMITS FOR ANIMAL FEEDING OPERATIONS**

**PUBLIC MEETING  
FEBRUARY 19, 2019  
KENANSVILLE, NORTH CAROLINA**

**PUBLIC MEETING  
FEBRUARY 26, 2019  
STATESVILLE, NORTH CAROLINA**

## TABLE OF CONTENTS

	<b>Page</b>
I. Introduction	3
II. Public Hearings	4
III. Public Comments	4
IV. Hearing Officer's Recommendation	28

### ATTACHMENTS

- Attachment 1 – General Permits Issued in 2014
- Attachment 2 – Draft General Permits Sent Out to Public Notice
- Attachment 3 – Press Release and Fact Sheet for Public Hearings
- Attachment 4 – Public Comments
- Attachment 5 – Recommended General Permits

## I. INTRODUCTION

The following Animal Feeding Operations General Permits (collectively General Permits) were issued in 2014 and will expire on September 30, 2019:

- General Permit No. AWG100000 – Swine Operations
- General Permit No. AWG200000 – Cattle Operations
- General Permit No. AWG300000 – Poultry Operations with Liquid Waste.

These General Permits are required for animal waste management systems that have at least 100 confined cattle, 250 swine, or 30,000 poultry with a liquid waste management system. These General Permits also apply to animal waste management systems that the Director has determined should not be deemed permitted under 15A NCAC 02T .1303.

The animal waste management systems covered by these General Permits include the collection, transfer, treatment, storage, and land application of animal waste. These systems collect animal waste using a variety of methods, including flush systems, pit recharge systems, barn scraper systems, and scraped surface lots. The waste is transmitted via channels or pipes to lagoons or storage ponds where the waste is treated and stored. Animal waste is then land applied at no greater than agronomic rates using irrigation equipment or waste spreaders.

Copies of the General Permits issued in 2014 are included as Attachment 1.

In preparation of publicly noticing the Draft General Permits, the Division of Water Resources (Division or DWR) held both stakeholder and public meetings on November 27, 2018 to gather vital input based on initial general permit drafts (Stakeholder Draft General Permits). As a part of that process, the Division accepted public comments on the Stakeholder Draft General Permits until December 21, 2018. Many of the comments received as part of the public comment period referenced the stakeholder meeting and the Stakeholder Draft General Permits discussed at those meetings.

After considering the stakeholder and public input it received, the Division sent Draft General Permits out to public notice on January 30, 2019. For the Draft General Permits, the Division held public meetings in Kenansville, NC on February 19, 2019 and in Statesville, NC on February 26, 2019. The public comment period for the Draft General Permits closed on March 4, 2019. The Draft General Permits are included as Attachment 2 and the related press release and fact sheet are included as Attachment 3. Public comments are included, in their entirety, as Attachment 4.

After considering the public input received, the Hearing Officer recommends issuance of the General Permits with changes identified in this report. The recommended General Permits (Recommended General Permits) are included as Attachment 5.

## II. PUBLIC HEARINGS

Pursuant to G.S. §143-215.4(b)(1) and (2) and 15A NCAC 02T .0108, the Director of the Division determined that it would be in the public interest to conduct public hearings and request public comment on whether to issue, not issue, or modify the General Permits. Jeff Poupart, the Division's Water Quality Permitting Section Chief, served as hearing officer.

Approximately three hundred (300) people attended the public hearing held in Kenansville, NC on February 19, 2019. Fifty-one (51) people presented oral comments and eleven (11) people submitted written comments regarding the draft General Permits.

Approximately sixty (60) people attended the public hearing held in Statesville on February 26, 2019. Twenty-five (25) people provided oral comments and three (3) submitted written comments regarding the draft General Permits. Summaries of the oral comments are found in Attachment 4. Audio recordings of the public hearings can be found at <https://deq.nc.gov/about/divisions/water-resources/water-quality-regional-operations/afo>

## III. SUMMARY OF AND RESPONSE TO PUBLIC COMMENTS

The Division received approximately 6640 public comments via email and another 36 via mail service. Most public comments related to the Swine General Permit. Some comments requested additional regulatory controls over the animal feeding operations, while other comments requested that the General Permits remain the same. Some comments focused on specific conditions, while other comments provided general feedback on permitting approaches and responsibilities.

Division staff summarized public comments, prepared staff responses to comments, and provided staff recommendations to the Hearing Officer. Changes that are recommended in the "Staff's Recommendation" below are changes between the Draft General Permits (Attachment 2) and the Recommended General Permits (Attachment 5).

All the written comments are available at: <https://deq.nc.gov/about/divisions/water-resources/water-quality-regional-operations/afo>

## PERMIT CONDITION COMMENTS

Permit condition numbers listed below reference the Swine General Permit. All condition numbers may not always align with the Wet Poultry and Cattle General Permits.

### Permit Description/Preamble

Comments: Commenters requested that the duration of this General Permit be reduced from five years to two years to allow for an Environmental Justice tool to be developed. Some commenters stated that a permit cycle less than five years would be unfair and burdensome.

Commenters requested clarification on the trigger(s) for an individual permit and on whether conditions in COCs are enforceable.

Commenters requested that an individual permit be required for any facility proposing to cover a lagoon or install a digester.

Commenters requested that the permit clearly state that statutory and regulatory references are for information only and do not constitute permit conditions.

**Response:** The five-year permit term complies with 15A NCAC 02T .0108(e). The Division may modify General Permits pursuant to 15A NCAC 02T .0110.

Comments regarding the Environmental Justice tool are address in the **GENERAL COMMENTS – Environmental Justice** section below.

Conditions and Limitations in a COC are incorporated as permit conditions into the General Permit and are enforceable.

Per S.L. 2007-523, an animal waste management system for which a permit was issued prior to September 1, 2007 may continue to operate under, and shall operate in compliance with, that permit, including any renewal of the permit. The installation of a lagoon cover constitutes a modification to an existing animal waste management system and requires approval from the Division prior to construction.

**Staff Recommendations:** *No change to 5-year permit term. Modify Authority Statement as follows:*

*References at the end of each condition are for information only but do not constitute permit conditions.*

#### **Condition I.1**

**Comments:** Commenters requested that the Division modify design standards to withstand current rainfall events and require all swine permittees to monitor surface water discharges like other permitted industries.

Commenters supported the proposed language in the third paragraph: "at the time of construction."

**Response:** Pursuant to G.S. §143-215.10C(b), the relevant design standard is based on the 25-year, 24-hour storm and the relevant NRCS Standard in place at the time of construction.

These General Permits are for non-discharge systems and Condition I.1 prohibits the discharge of waste to ditches, surface waters, or wetlands.

**Staff Recommendations:** *No change.*

#### **Condition I.4**

Comments: Commenters supported the modifications that distinguish between an “amendment,” a “revision,” and a “major change” to a Certified Animal Waste Management Plan (CAWMP). Commenters expressed concern about submitting Amendments to the Division within thirty days.

Response: An “amendment” allows minor modifications to the CAWMP without necessarily triggering complete revision of the entire plan. Staff believe that requiring Amendments to be submitted to the Division improves oversight and transparency.

Staff Recommendations: *No change.*

#### **Condition I.7**

Comments: Commenters requested language clarifying that new and expanded swine operations are not covered under the General Permit.

Response: The Staff believe that the existing permit language clearly states that new and expanded swine operations are not covered under the General Permit: “New Swine operations and expansion of existing swine operations are not eligible for coverage under this General Permit.”

Staff Recommendations: *No change.*

#### **Condition I.8**

Comments: Commenters recommended that the Division prohibit CAFOs and increased stocking in coastal lowlands.

Response: The Division does not have the authority to flatly prohibit CAFOs in “coastal wetlands.” Per G.S. § 143-215.10I, new swine farms or expansions of existing swine farms that utilize sprayfields are prohibited.

Staff Recommendations: *No change.*

#### **Condition I.9**

Comments: Some commenters requested that PLAT be run on all fields regardless of the soil P index. Other commenters challenged the Division’s authority to regulate phosphorus application. Many commenters recommended a wide range of P-index values as the threshold to require PLAT.

Some commenters suggested that the phosphorus accumulation occurred over many years with legacy tobacco cultivation being a more significant contributor to a high soil P-index.

Some commenters also questioned the availability of technical specialist to perform PLAT within the timeframes specified in the Draft General Permits. Other commenters expressed concern with replacement of RUSLE with the new tool.

Some commenters requested that the General Permits give permittees 12 months to run PLAT for fields with soil test results above the threshold to trigger PLAT.

Response: Under G.S. §143-215.1(b)(4)(a), DEQ has the authority “to grant a permit with such conditions attached as the Commission believes necessary to achieve the purposes of this Article.”

Soil test results with a high P-index demonstrate a need for further evaluation for protection of surface and groundwater. An analysis of over 40,000 soils samples from 2018 shows that a P-index value of 400 represents the 95th percentile of highest P-index values (the highest 5% of samples). This data coupled with PLAT results from animal feeding operations covered by NPDES permits from 2003-2007, indicate that a P-index value of 400 is likely to be found in soils where additional phosphorus loading should be limited to protect surface and groundwater. The PLAT analysis is the NC standard for making this determination and, due to potentially elevated phosphorus levels in surface and groundwater, DEQ is specifying PLAT requirements for certain land application sites under its authority in G.S. §143-215.1(b)(4)(a).

The replacement of RUSLE within the PLAT tool for erosion estimates will not occur in the near future. Until the replacement for RUSLE is ready, PLAT will continue to be run using RUSLE.

Timeline for implementation may present practical concerns for some permittees. Permittees with fields having a current P-index value of 400 will now have approximately 15 months from the time the General Permits go into effect to complete PLAT. The Division will allow permittees to request extensions of up to three months that may be granted on a case-by-case basis.

Staff Recommendations: Condition I.9 should be rewritten as follows:

*Any land application field with a soil analysis P-index of 400 or higher must be evaluated for compliance with NC NRCS Standard 590 “Nutrient Management” as it relates to phosphorus using the NC Phosphorus Loss Assessment Tool (PLAT). PLAT must be completed within twelve (12) months of receiving the high P-index soil analysis results or January 1, 2021 whichever is later. The Permittee may make one or more requests for extensions of up to three months each. Extension requests shall be submitted to the Division in writing and justify why the extension is needed. PLAT results must be documented on forms supplied by or approved by the Division and must be submitted to the Division’s Central Office within thirty (30) days of completion. Per NC NRCS Standard 590, PLAT results are valid for five (5) years. – [15A NCAC 02T .0108(c)]*

*All fields with a “HIGH” PLAT rating shall have land application rates that do not exceed the established crop removal rate for phosphorus. There shall be no waste application on fields with a “VERY HIGH” PLAT rating. – [15A NCAC 02T .0108(b), see also NRCS Standard 590]*

**Condition I.12**

Comments: Some commenters requested additional setbacks and increases to existing setbacks, including a request to increase setbacks from drinking water wells.

Some commenters expressed concern regarding requirements to modify waste plans for existing land application sites due to construction of new residential development.

Response: 15A NCAC 02T .1304(b)(5) prohibits the land application of waste within 100 feet of a well other than a monitoring well.

Setback requirements for animal waste application fields are established at the time the field is put into use. New homes being constructed adjacent to established, documented waste application fields would not require modifications to existing buffers for those fields. New water supply well construction must consider existing potential sources before well construction. 15A NCAC 02C .0107(a)(2) requires a minimum 100 feet horizontal separation between a well and an existing animal feedlots or manure piles.

Staff Recommendations: *No change.*

**Condition II.4**

Comments: Some commenters supported the new language clarifying that agronomic rates for land application must account for “all nutrient sources,” rather than only nutrients from the swine waste being applied.

Response: Staff agree with your comments.

Staff Recommendations: *No change.*

**Condition II.5**

Comments: Some commenters requested stronger language regarding ponding and removal of vague terminology. Others supported the existing permit language.

Response: Staff believe that the permit condition is clear as written and is consistent with State law.

Staff Recommendations: *No change.*

**Condition II.7**

Comments: Some commenters supported allowing sludge application to conventionally tilled bare soil to be incorporated within two days or before the next rainfall. Other commenters asked for stronger limitations on ponding.

Response: Two days are allowed due to practical considerations such as tractability and soil compaction when attempting to incorporate sludge into bare soil that has a high moisture content.

Condition II.5 already addresses restrictions on ponding and runoff.

Staff Recommendations: *No change.*



### **Condition II.8**

Comments: Commenters requested clarification on why "animal waste of the type" was replaced by "swine waste," and on "whether other forms of livestock be allowed to graze on the spray fields."

Response: It was not the intent to restrict the ability of the permittee to allow grazing. The condition is intended to ensure that other materials or wastes other than permitted animal waste are not introduced into the waste management system. However, staff agrees that the existing permit condition language is clearer.

*Staff Recommendations: Revert to prior language to clarify.*

### **Condition II.10**

Comments: Commenters supported daily documentation for animal mortality and requested improved transparency by requiring permittees to submit records on mortality. Other commenters suggested additional restrictions on burial.

Some commenters stated that the 24-hour disposal requirement exceeds the Division's authority.

Commenters requested clarification on groundwater monitoring requirements at mortality burial sites.

Response: Mortality management is primarily within the purview of the North Carolina Department of Agriculture and Consumer Services Veterinary Division. The State Veterinarian approves disposal methods and conditions. Staff agrees that a statement regarding the State Veterinarian's approval of disposal method should be added.

The Division has the authority to require groundwater monitoring of a mortality burial site. The Division will exercise these authorities as necessary, per condition III.10.

The Mortality Management Checklist is a part of the CAWMP and is a public record.

*Staff Recommendations: No change regarding monitoring.*

*Add the following statement to address the authority of the State Veterinarian to approve disposal methods and associated timeline.*

*"Proposed methods for disposal of mortality that extends beyond twenty-four (24) hours must be approved by the State Veterinarian."*

### **Condition II.12**

Comments: Some commenters expressed concern that maintaining vegetation to the stop pump level is impractical and recommended that the language from the Cattle and Wet Poultry permit drafts be used.

Some commenters supported language changes to remove monitoring of pH on lagoon embankments.

Response: The intent is for vegetation to be maintained on the outer slope, top of embankment, and on the interior slope to at least the freeboard compliance level (also referred to as “start pump” or “redline.”) Staff agree that the condition language should be made clearer.

Staff Recommendations: *No changes regarding monitoring of pH. The requirement to maintain vegetation will dictate the need for soil sampling as needed.*

*Condition II.12 should be rewritten as follows:*

*A protective vegetative cover shall be established and maintained on all earthen lagoon/storage pond embankments (outside toe of embankment to maximum operating level/compliance level on embankment interior), berms, pipe runs, and storm water diversions with the goal of preventing erosion. Trees, shrubs, and other woody vegetation shall not be allowed to grow on the lagoon/storage pond embankments. All trees shall be removed in accordance with good engineering practices. Lagoon/storage pond areas shall be accessible, and vegetation shall be kept mowed. – [15A NCAC 02T .1304(b)]*

### **Condition II.13**

Comments: Some commenters recommended that the General Permits require a schedule for sludge removal from lagoons.

Response: Condition III.22 addresses sludge management, including sludge surveys and removal/management plans. Condition III.22 is based on NC NRCS Conservation Practice Standard No. 359 – Waste Treatment Lagoon.

Staff Recommendations: *No change.*

### **Condition II.17**

Comments: Some commenters requested that the affirmative defense language be added back into the General Permits. Some commenters supported, while others opposed, including language from the rules for Operators-In-Charge (OICs).

Response: Staff believe that affirmative defense language is unnecessary because the Division is already required to consider similar factors when assessing a civil penalty. See G.S. §143B-282.1.

Staff believe that including OIC requirements in the General Permits promotes compliance by improving transparency and knowledge about the OIC requirements set forth in 15A NCAC 8F .0203(b).

Staff Recommendations: *No change.*

### **Condition II.18**

Comments: Some commenters requested that automatic technology, including flow meters, be required for all permittees. Other commenters oppose permit language such as “flow estimation techniques that do not adequately quantify volumes...” and “or other flow monitoring equipment approved...”.

Other commenters noted that the language pertaining to installation of flow meters/totalizers doesn’t apply to dairy industry because dairy waste is applied with a honey wagon.

Response: Staff believes that the permit language is necessary to address a range of circumstances. The permit language allows the Division to consider/approve the most appropriate method/equipment for site specific conditions.

Staff Recommendations: *No change based on comments.*

*Add following statement to address maintenance. "The Permittee shall maintain such devices according to the manufacturer's instructions and warranties."*

### **Condition II.19**

Comments: Some commenters supported spray restrictions where wind drift can occur.

Response: Staff agree with your comments.

Staff Recommendations: *No change.*

### **Condition II.20**

Comments: Some commenters recommended that the General Permits require automated technology to prevent spraying during windy conditions. Some commenters suggested specific devices and thresholds. Some commenters indicated that Smithfield Foods agreed to install such technology on its wholly owned hog operations more than a decade ago.

Other commenters noted that the use of specialized equipment to reduce drift is unnecessary because drift beyond the application field is a violation. These commenters further that if condition is retained, it should be required on a case-by-case basis.

Commenters noted that the installation of newer irrigation equipment does not apply to dairy farms because they use low pressure land application techniques. These comments noted that if the wording needs to be retained in the final version, the new equipment requirement should be on a case by case basis, but not based on third party allegations.

Response: Staff believe that the proposed language is appropriate. Condition II.19 prohibits land application "in wind conditions that cause or might reasonably be expected to cause the waste to reach surface waters, wetlands, or cross property lines, or field boundaries." The Division may require additional measures to ensure compliance per Condition II.20.

Operational decisions made by individual owners to implement protective measures that exceed those required by statute, rule, and/or permit are encouraged.

Staff believes that the permit language is necessary to address a range of circumstances and should remain in all three General Permits.

Staff Recommendations: *No change.*

**Condition II.23**

Comments: Some commenters requested that the Division rescind the proposed expansion of the National Weather Service application window to ensure that waste is not sprayed during the early onset of precipitation events and require that waste will be fully incorporated into soil at least 24 hours in advance of the onset of the storm event.

Other commenters requested that the General Permits reflect the new notification protocol implemented by the National Hurricane Center in 2018 and supported providing the statement of intent in the permit.

Response: This Condition was revised to clarify the original intent, which was to have application of waste cease approximately 24-hours prior to the onset of a hurricane or tropical storm. The National Weather Service now issues Hurricane/Tropical Storm Warnings or Flash Flood Watches associated with Hurricanes/Tropical Storms at least 36 hours prior to the storm event. The 12-hour window after issuance of said watches/warnings provides operators time to receive notification and cease waste application while allowing at least 24-hours for the waste to incorporate into the soil.

Staff Recommendations: *No change.*

**Condition II.24**

Comments: Some comments supported use of automatic technology (rain breakers) to prevent spraying waste during rain events.

Other commenters opposed rainbreakers based on technical concerns. For example, some commenters expressed concern that rain breakers would inadvertently prevent spraying during heavy fog/dew and others expressed concern about water hammer resulting in damage to pipes.

Some commenters noted that installation of rain breakers on irrigation equipment would not apply to dairy operations as they use honey wagons.

Some commenters requested that automatic rain breakers be required on case-by-case basis.

Some commenters recommended that the permit allow for any person under the supervision of the OIC to be onsite during land application. Condition II.17 allows a person under the supervision of the OIC or backup OIC to be onsite during land application, and this would make the two conditions consistent.

Commenters requested a timeline to implement the requirement.

Response: Staff supports the requirement for either a rain-breaker device or having an operator onsite at all times during land application of waste.

Permittees may select to have an operator onsite during waste application events if they are concerned about impacts of rain-breaker equipment on the waste application system.

Staff believe that honey wagons are adequately addressed in this Condition.

The timeline for implementation is 12 months, per the General Permits.

Staff believe that this Condition should be updated to be consistent with Condition II.17 to allow someone under the direct supervision of the OIC or Back-up OIC to be onsite to satisfy this Condition as well.

Staff Recommendations: Condition II.24 should be re-written as follows:

*The Permittee shall:*

- a. install, operate, and maintain devices on all irrigation pumps/equipment designed to automatically stop irrigation activities during precipitation; or*
- b. commit to provide for the presence of the OIC, a designated backup OIC, or a person under the supervision of an OIC or Back-up OIC at all times during the land application of waste so that in case of a precipitation event, the irrigation activities will be stopped immediately. This commitment must be submitted in writing to the Division on a form supplied by, or approved by, the Division. – [G.S. §90A-47]*

*Installation of devices or submission of alternate documentation shall be completed within twelve (12) months of the issuance of the Certificate of Coverage for this General Permit. The Permittee shall maintain such devices according to the manufacturer's instructions and warranties. This Condition does not apply to manure spreaders or other equipment pulled by manned vehicles. – [15A NCAC 02T .0108(b)]*

#### **Condition II.26**

Comments: Some Commenters recommended that the calibration requirement be changed to once per year rather than once every two years.

Other commenters recommended the calibration requirement remain at once every two years.

Response: The current calibration frequency is consistent with 15A NCAC 02T .1304(b)(9).

Staff Recommendations: No change.

**Condition II.27**

Comments: Some commenters supported the language in the Draft General Permits that allows for appropriate technical specialists, in addition to professional engineers, to certify lagoon repair work.

Response: Staff agree with your comments.

Staff Recommendations: No change.

**Condition II.28**

Comments: Some commenters requested reduction of the amount of time permittees have to remove crops after harvest. They stated that 24 months is far too long to adequately protect against decomposition and the return of nutrients into the soil.

Other commenters supported the 24-month time period for crop removal.

Response: Staff recommends clarifying language to distinguish the 24-months for hay removal and storage from other crops.

Staff Recommendations: Condition II.28 should be re-written as follows:

*Crops for which animal waste is land applied must be harvested, removed from the land application site, and properly managed and utilized unless other management practices are approved in the CAWMP. Hay harvested from land application fields shall be removed within twenty-four (24) months of cutting unless other management practices are approved in the CAWMP. – [15A NCAC 02T .0108(b) and .1304(b)]*

**Condition II.29**

Comments: Some commenters opposed lowering lagoon levels below the designed stop pump elevation. They expressed concern that spraying during a drought does not account for the nutrient needs of the crop and can lead to overapplication, and recommended that Permittees seek permission prior to lowering lagoon levels

Other commenters requested that the condition be revised to clearly establish the conditions and restrictions, rather than cross referencing to the NRCS Standard No. 359.

Response: NC NRCS Standard No. 359 addresses the conditions under which temporary lowering of lagoon levels is allowed. However, staff believe that including the conditions and requirements from NC NRCS Standard No. 359 in the General Permits would provide clarity, transparency, and improved compliance.

Staff Recommendations: *Permit Condition II.29 should be re-written as follows:*

*In accordance with NRCS North Carolina Conservation Practice Standard No. 359 “Waste Treatment Lagoon”, an operator may temporarily lower lagoon levels to provide irrigation water during drought periods and to provide additional temporary storage for excessive rainfall during the hurricane season and in preparation for the following winter months. All conditions of NRCS NC Standard No. 359 must be satisfied prior to lowering lagoon levels below designed stop pump levels. NRCS NC Standard No. 359 requires the following:*

- a. Lagoon levels may be lowered a maximum of 8 inches below the facility’s stop pump mark during the period of June 15 through October 31*
- b. This option shall be limited to lagoons having a minimum of 4 feet of liquid above the sludge layer. The measurement shall be taken from the stop pump level, at the pump intake, prior to pumping below the stop pump level.*
- c. All applications must be in conformance with the CAWMP developed for the operation, including adherence to the planned nutrient application rates.*
- d. From November 1 through June 14, pumping from the lagoon will not be permitted when the lagoon level is at or below the stop pump elevation.*
- e. The following information concerning the pump down conditions shall be recorded and maintained on site:*
  - i. Date the lagoon was first pumped below the stop pump level;*
  - ii. Depth of liquid between the stop pump level and the sludge layer prior to pumping below the stop pump mark. Measured from the stop pump level near the pump intake location but off the inside slope of the embankment;*
  - iii. Date pump down was completed; and*
  - iv. Depth of pump down below the stop pump level. Measured weekly until the lagoon returns to the stop pump level.*

*– [15A NCAC 02T .1304(b)]*

**Condition III.1**

Comments: Some commenters supported the removal of the Operator Manual condition.

Response: Staff agree with your comments.

Staff Recommendations: *No change.*

**Condition III.2**

Comments: Some commenters supported improved monitoring of freeboard levels and waste levels of lagoons. Other commenters opposed requirements that increase costs – such as costs for surveying and automated freeboard monitors.

Some commenters requested that survey and certification of waste level markers be required only if the inspector notes an obvious inaccuracy.

Some commenters supported requiring automated technology for all permittees, while other commenters requested that the devices be required only for cases of freeboard violations.

Some commenters requested language to clarify that devices can be required as deemed necessary by the Director, while other commenters suggest DEQ make the determination.

Some commenters requested that the Division add requirements for monitoring reports for pre-rainfall event and post rainfall event lagoon levels.

Response: Staff believe that the condition is clear regarding the requirements for routine monitoring, waste-level gauge maintenance, and circumstances which may lead to use of automated waste level recording devices.

Lagoon levels must be documented at least weekly and after every rainfall event of 1-inch or greater. No additional requirement is needed for pre-/post-rainfall.

Staff Recommendations: *No change.*

### **Condition III.3**

Comments: Some commenters requested that automated rain gauges be imposed on a case-by-case basis, while others requested that they be required for all permittees.

Some commenters requested that the condition be clarified as to when an automated rain gauge may be required.

Response: Staff believe that the permit condition language adequately addresses circumstances that may require the use of automated rain gauges, which shall be determined by the Division on a case-by-case basis.

Staff Recommendations: *No change.*

### **Condition III.6**

Comments: Some commenters requested that monitoring reports include spray-field soil/nutrient levels.

Response: Staff believe that this permit requirement is consistent with G.S. §143-215.10C(e)(8), which requires soils tests to be conducted at least once every three years for all fields receiving animal wastes.

Staff Recommendations: *No change.*

### **Condition III.8**

Comments: Some commenters supported the existing permit language that requires monthly stocking records instead of proposed weekly recording.

Some commenters stated that mortality and stocking records may be confidential business records and that they are not subject to disclosure under the Public Records Act.

Response: Staff believe that weekly stocking records are appropriate for all animal types and that keeping weekly records is no additional burden based on current mortality disposal requirements.



The Division is committed to complying with the Public Records Act, including G.S. §132-1.2 but is not in a position to state, categorically, that all mortality and stocking records are confidential business records and not subject to disclosure under the Public Records Act.

*Staff Recommendations: No change.*

### **Condition III.9**

Comments: Some commenters requested that waste lagoon be sampled within 24 hours of knowledge of discharge and that the permittee collect the samples and promptly submit them for analysis, so the agency can evaluate the impacts of the discharge on receiving waters.

Some commenters objected to the decision to remove Section III.9.f.

Response: Staff believe that sampling of surface water to evaluate impacts resulting from unpermitted discharges should be conducted by the Division. Staff are trained on established quality assurance protocols to assure that the data will be usable for future enforcement actions. The condition does require submittal of the most recent waste analysis as required by condition III.5 to characterize the source of the discharge.

*Staff Recommendations: No change.*

### **Conditions III.10 - 14**

Comments: A substantial number of comments were submitted regarding groundwater monitoring requirements. These comments addressed a range of subjects including but not limited to circumstances for requiring monitoring, parameters, reporting, costs, timeline for implementation, and applicability to cattle operations. Some commenters supported the conditions requiring groundwater monitoring, while others opposed groundwater monitoring.

Some commenters stated that facilities operating in the 100-year floodplain are more vulnerable to the risks of groundwater contamination due to flooding and high-water tables and referred to G.S. §106-802(a2), which prohibits construction of new animal waste management systems in the 100-year floodplain.

Some commenters requested that monitoring be required at facilities applying waste to the 100-year flood plain and at facilities with other risk factors such as mortality burial, proximity to drinking water sources, compliance history, facility size, and separation from lagoon bottom and seasonal high-water table.

Some commenters suggested lagoon leak detection systems as an alternative to groundwater monitoring wells.

Other commenters requested that reporting of monitoring results be accessible to neighboring communities.

Some commenters requested that the Division add sample parameters such as sodium, potassium, nitrite-N, Total Kjeldahl Nitrogen, and pathogens. Some commenters requested that the permit clarify the sampling procedures and standards necessary to obtain accurate and high-quality groundwater monitoring data.

Some commenters oppose groundwater monitoring requirements without evidence of off-site impacts or groundwater violations

Some commenters stated that no scientific basis exists for groundwater monitoring. Other commenters said that 100-year flood plain is a surface water issue, not a groundwater issue.

Some commenters stated that groundwater monitoring is expensive and unnecessary. One commenter noted that well installation can cost up to \$1,500 per well, quarterly sampling can cost \$300-\$500 per event, and the cost of hiring a consultant to determine up and down gradient locations for well placement would add several thousand dollars.

Some commenters requested clarification on if the Division will notify the facilities which have lagoons in the 100-year floodplain and on who will conduct hydrogeologic evaluation to determine well placement.

Some comments also claimed that groundwater monitoring on 100-year flood plain ponds is irrelevant to dairy farms as there are no dairy farms on these specified sites as per NCDA&CS.

Some commenters said that nine months is not enough time to complete well installation and begin sampling. Other commenters requested an allowance for farmers to stop groundwater monitoring if initial results indicate that there are no groundwater standards violations.

Response: State law provides authority for the Division to require additional Groundwater Assessment. The Division acknowledges increasing public concerns with potential environmental impacts from permitted facilities as a result of recent storm and flooding events, combined with lack of groundwater monitoring data at permitted facilities have resulted in the draft permit language.

The monitoring parameters and frequencies in the General Permits are consistent with those required in other non-discharge permits and are intended to identify potential groundwater concerns resulting from the permitted activity. Additional parameters would be considered if warranted by monitoring results and the extent of groundwater impacts.

The Division does not concede that there are no permitted dairy operations with waste structures in the 100-year floodplain. The Division will continue to evaluate the location of waste structures.

Staff agrees that additional clarification on installation schedule is needed to ensure permittees have reasonable timeframes to meet this condition. Staff further agrees that the condition should allow a permittee the opportunity to demonstrate groundwater monitoring is no longer necessary.

Staff Recommendations: Condition III.11 should be re-written as follows:

*Facilities with lagoons/waste storage structures located in the 100-year floodplain shall complete well installation and collect initial sample of on-site groundwater monitoring within six (6) months of receiving notification from the Division's Regional Office of the well installation requirements and well locations.*

*The groundwater monitoring shall be conducted with monitoring wells installed upgradient and downgradient of each lagoon/storage pond in the 100-year floodplain.*

*Permittee may request exemption from this condition upon providing in writing an application for a permit modification and documentation of two (2) years of consecutive monitoring results below applicable groundwater standards. – [15A NCAC 02T .0108]*

### **Condition III.15**

Comments: Some commenters requested that regular and easily accessible reporting be provided and that it is linguistically accessible to communities.

Some commenters requested that the Division require (monthly) electronic submittal of records including those for land application of waste, cropping, stocking and soil and lagoon sampling. These commenters also requested that the Division facilitate more online record-keeping.

Some commenters supported the two-year implementation period for increased records retention requirement.

Response: See staff response below for **GENERAL COMMENTS – Electronic Records.**

Staff Recommendations: No change.

### **Condition III.17**

Comments: Some commenters requested that the Division require facilities to notify the Division within 12 hours rather than 24 hours.

Response: Reporting requirements are consistent with regulatory requirements.

Staff Recommendations: No change.

### **Condition III.18**

Comments: Some commenters supported the annual report requirement while others opposed it. Those supporting the requirement requested various records be submitted to the Division for public review.

Some commenters said the proposed annual report is unclear, ambiguous, redundant and unnecessary. Commenters also said the requirement appears to derive from resolution of the Title VI complaint.

Other commenters opposed annual reporting and believe it is unnecessary because of annual inspections. Some commenters recommended more use of BMPs, not more paperwork.

Other commenters stated that electronic record submission was not feasible due to lack of broadband internet in rural areas.

Commenters requested the general permit include a report due date.

Response: The annual report provides a summary of annual operational data related to the application of nutrients to permitted fields. Staff believe that this report, along with the statutorily required annual inspection, will provide the Division with operational data for state-wide evaluation of nutrient management for the animal feeding operations permitting program.

Staff agree that modifications should be made to the Animal Facility Annual Report Form to improve clarity on reporting expectations.

See staff response below for **GENERAL COMMENTS – Electronic Records**.

The annual report due date should be set as April 1 to allow permittees adequate time for compliance

Staff Recommendations: *The condition should be changed to read:*

*The Permittee shall submit an annual report by April 1 of each year for the previous calendar year's activities. The report must be filed using the form in Attachment A and submitted to the Division's Central Office. These reports will be kept on file at the Department and made available for public review upon request. [15A NCAC 02T .0108(b)]*

*In addition, the Animal Facility Annual Report Form (Permit Attachment A) should be modified as follows:*

- *Changes the term "annual certification" to "annual report"*
- *Clarify that the operator certification number is needed and not the Certification Number.*
- *Improve the visual breaks between the different Parts of the report*
- *Recognize that not land applying waste during the calendar year only exempts the permittee from completing Part I, not Parts II and III*
- *Remove the requirements in Part I to report largest and smallest numbers of animals by type.*
- *Clarify expectation for Part II by providing directions.*
- *Streamline questions in Part II to focus on affirming compliance with permit condition where a recordkeeping activity is required on a regular frequency or to support a specific action.*
- *Modify the affirmation statement to read:*

*"I affirm by my signature that this document and all attachments were prepared under my direction or supervision. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of civil and criminal penalties."*

**Condition III.19**

Comments: Some commenters requested that the Division require the receiving water body, river basin name, contact person information, and actions taken to prevent further discharge be included in press releases for waste discharges over 1,000 gallons.

Some commenters requested the Division require a press release within 24 hours.

DEQ should also reproduce any reports online.

Response: The current condition language meets G.S. §143-215.10C(h)(1).

Staff Recommendations: *No change.*

**Condition IV.1**

Comments: Some commenters requested more inspections and unannounced inspections.

Response: Staff agrees. Additional and/or unannounced inspections are made as needed based upon known or suspected site conditions, biosecurity, environmental conditions, and resource availability.

Staff Recommendations: *No change.*

**Condition V.4**

Comments: Some commenters requested a requirement to track and record lagoon waste given to residents for personal use.

Response: Staff believe that tracking waste transferred for personal use is unnecessary, as the allowable volumes are so small per person. The Division will continue to evaluate if the amount of waste distributed warrants additional recordkeeping and reporting.

Staff Recommendations: *No change.*

**Condition V.12**

Comments: Some commenters supported the depopulation condition.

The last sentence refers to Swine instead of Cattle.

Response: Staff agree with the comments. The reference to swine in the last sentence of the permit condition in both the Cattle and the Poultry draft permits was an error.

Staff Recommendations: *The last sentence of the permit condition in the Cattle General Permit should read:*

*Any facility that does not meet the criteria above is a new cattle animal waste management system. – [15A NCAC 02T .1302(5)]*

*The last sentence of the permit condition in the Poultry General Permit should read:*

*Any facility that does not meet the criteria above is a new poultry animal waste management system. – [15A NCAC 02T .1302(5)]*

**Condition VI.1**

Comments: Commenters requested that fines for waste related incidents be paid directly to neighboring communities.

Response: Article IX, Section 7 of the North Carolina Constitution and Article 31A of Chapter 115C require the Division to place all proceeds of all civil penalties, civil forfeitures, and civil fines in the Civil Penalty and Forfeiture Fund, which are subsequently appropriated to the State Public School Fund.

Staff Recommendations: *No change.*

**Condition VII – Definitions – Agronomic Rate**

Comments: Commenters support the revision of this definition.

Response: Staff agrees with your comment. The revised definition is consistent with 15A NCAC 02T .0103.

Staff Recommendations: *No change.*

**Condition VII – Definitions – Amendment**

Comments: Commenters supported the revision of this definition and allowing amendments to CAWMPs.

Response: Staff agrees with the comment.

Staff Recommendations: *No change.*

**Condition VII – Definitions – Animal Waste**

Comments: Commenters requested that the Division add “as defined in G.S. §143-215.10B(2)” to the definition.

Response: The regulatory reference is provided at the end of the definition in a manner consistent with other permit conditions.

Staff Recommendations: *No change.*

**Attachment B**

Comments: Some commenters supported language in the permit and Attachment B indicating that the COC will specify required monitoring frequency and the name and number of required groundwater monitoring wells.

Other commenters requested that the Division require a more complete evaluation of the impacts of permitted operations on groundwater quality.

Some commenters requested that the Division add requirements to evaluate levels of Total Kjeldahl Nitrogen and nitrite-N. Some commenters requested monitoring to detect genetic markers, isotope tracers, and antibiotic resistant bacteria.

Response: The monitoring parameters and frequencies in the General Permits are consistent with those required in other non-discharge permits and are intended to identify potential groundwater concerns resulting from the permitted activity. Additional parameters would be considered based on results of monitoring requirements in the permit. The Division also has the authority to require additional monitoring and waste characterization as necessary.

The development of appropriate regulatory oversight of antibiotics and other unregulated compounds potentially found in wastewater is being evaluated by the Division. It is premature for this permit to include the recommended requirement.

Staff Recommendations: *No changes.*

## **GENERAL COMMENTS**

The following discussion summarizes comments received concerning the general permit that were not specific to permit conditions or attachments. Comments were categorized into similar topics for developing staff responses and recommendations, which are provided below.

### **Authority**

Comments: Some commenters questioned the Division's authority to impose standards not adopted by the General Assembly or through rule-making. Commenters stated that, absent an exception, G.S. §150B-19.3 prevents an agency from adopting environmental rules that are more restrictive than federal standards.

Response: These General Permits do not constitute a "rule" as defined under G.S. §150B-2(8a). A permit constitutes a "license" under G.S. §150B-2(3).

Staff Recommendations: *No change.*

### **Co-Permitting with Industry**

Comments: Some commenters requested that the Division require integrators to be a co-permittee and held responsible for waste management.

Response: By statutory definition, an integrator cannot be a permittee. G.S. §143-215.10H defines a 'grower' as "a person who holds a permit for an animal waste management system..." and a 'swine operation integrator' as "a person, other than a grower, who provides 250 or more animals to a swine farm..."

Staff Recommendations: *No changes.*

### **Electronic Records**

Comments: Some commenters requested that the General Permits require permittees to electronically submit records and requested that the Division maintain those records on an electronic platform.

Other commenters opposed electronic submission of records for many reasons, including redundancy and accessibility.

Response: The Division is supportive of the use of electronic data submittal as a tool to ease burdens associated with record submittal and public records management. Electronic submission of data significantly reduces handling costs, environmental impacts, and improves timeliness and should be encouraged. No electronic reporting mechanism is currently available; however, electronic reporting tools developed and approved for use by the Division should be required. Waiver allowances should be considered to recognize that electronic reporting may not be reasonable for all permittees.

Staff Recommendations: *No Change.*

### **Enforcement**

Comments: Some commenters requested that the Division increase its compliance efforts, including additional inspections and compliance reviews and increase its enforcement.

Response: The Division agrees that a committed and consistent inspection and enforcement are an essential part of the animal feeding operations program. The Division strives to hire necessary staff and inspectors with the resources currently available.

Staff Recommendations: *No changes.*

### **Environmental Justice**

Comments: Commenters requested consideration of environmental justice concerns. Commenters recommended that the General Permit enable DEQ to take into account the full impact of each facility it covers, including the cumulative impacts of the pollution they produce with that of surrounding facilities, on health and the environment. Commenters further stated that the Division should protect communities in eastern NC that suffer from these operations by considering combined environmental and public health impacts. Some commenters requested that the Division take the cumulative burden of pollution of nearby hog operations on vulnerable communities into account in permitting decisions. DEQ's regulatory scheme must take into account all aspects of the animal agricultural industry, to include poultry.

Commenters requested to limit the term of the General Permit to two years, during which time their Environmental Justice tool and mitigation measures to protect communities of concern can be developed.

Response: The conditions in the General Permits are intended to protect all communities and public health and the environment. Cumulative health impacts are not currently in the Department's purview. Cumulative impacts to water resources are in the Department's purview and are considered in statute, rule, and in the permit condition within these general permits.



The Department is currently in the process of developing a Community GIS Mapping Tool intended to be used for departmental educational purposes. The tool is not intended for regulatory purposes. Delaying the general permit or shortening the permit's duration in order to incorporate the community mapping tool is not a viable option.

*Staff Recommendations: No changes.*

### **Fiscal Analysis**

Comments: Some commenters suggested that DEQ is required to conduct a fiscal analysis in proposing the draft Swine Waste Management General Permit, to adhere to the requirements set forth in G.S. §150B-21.4(b1) for when a proposed rule will have a "substantial economic impact."

Response: This permit does not constitute a "rule" as defined under G.S. §150B-2(8a). A permit constitutes a "license" under G.S. §150B-2(3).

*Staff Recommendations: No changes.*

### **Odor Control**

Comments: Some commenters requested that the General Permits make clear that permittees must implement best management practices ("BMPs") identified in the Odor Control Checklist and comply with the 2D odor rules.

Commenters suggested that DEQ overlooked the applicability of 15A NCAC 02D .1802, a rule designed to ensure control of odors from animal operations using liquid animal waste management systems, as well as the requirements in subsequent rules pertaining to odor best management plans

Response: The Odor Control Checklist is part of a Certified Animal Waste Management Plan, which is incorporated into the permit by reference in condition I.3. Failure to follow the Odor Control Checklist is a violation of the permit. Any permitting or other regulatory requirements established in 15A NCAC 02D .1802 that are not explicitly incorporated into the General Permits, are under the jurisdiction of and enforceable by the Division of Air Quality.

*Staff Recommendations: No changes.*

### **Phase out Lagoon-Spray field**

Comments: Some commenters requested that the lagoon spray systems be eliminated or phased out.

Response: Statute and administrative code do not prohibit the continued use of lagoon-spray systems. Permit renewal is required and authorized under the authority of G.S. §143-215. Minimum design and operating requirements are established in G.S. §143-215 and 15A NCAC 02T Section .1300.

*Staff Recommendations: No changes.*

### **Surface Water Monitoring**

Comments: Some commenters requested that the General Permits require surface water monitoring, including testing for bacteria and nutrients.

Response: The Division may require permittees to seek coverage under an individual permit for various reason set forth in 15A NCAC 02T .0111. An individual permit would allow site-specific monitoring to address concerns on a case-by-case basis.

Staff Recommendations: *No change.*

### **Swine vs Cattle**

Comments: Some commenters noted that many of the conditions in the swine general permit are not applicable to or appropriate for cattle.

Response: Cattle waste management system designs can vary. Therefore, staff believe that the conditions in each of the General Permits adequately address the many types of operations.

Staff Recommendations: *No changes.*

### **Technology**

Comments: Some commenters requested that the Division require new, cost-effective technology that ensures industry compliance with the new General Permits.

Other commenters opposed any requirement for additional waste treatment technology under the General Permits.

Response: Minimum design and operating requirements are established in both G.S. § 143-215 and 15A NCAC 02T. Permit Conditions II.18, II.20, II.24, III.2 all contain provisions for requiring automatic technologies. The permit conditions provide clarity on the potential for automatic technology to be required.

No requirements for specific waste treatment technologies are included in the permit.

Staff Recommendations: *No change.*

### **Transparency**

Comments: Commenters requested more that the Division promote transparency by requiring the permittees to submit records.

Response: The Division will take this comment into consideration if submission of records is deemed necessary in the future. The Division is committed to meeting public records requirements.

The General Permits contain requirements for Annual Reporting, and the Division conducts annual inspections. These records are available to the public.

Staff Recommendations: *No change.*

### **Overburdensome Requirements**

Comments: Some commenters requested that the General Permits not add costly and unnecessary requirements and stated that the existing requirements are among the toughest in the nation.

Response: The General Permits are supported by existing State Law. The General Permits contain conditions for the permittee to gather operations data to support assessment of the permittee's compliance with permit conditions. Permit modifications to require select facilities to gather ground water data or evaluate potential phosphorus loss and all permitted facilities to submit annual report will provide data to further assess permittee operations and provide additional scientific data to identify areas where additional monitoring or reporting may be needed.

Staff Recommendations: *No change.*

### **Comments outside of scope of general permit language and authority.**

Comments: Many comments received were outside of the scope of the General Permit renewal. Following are examples of those comments:

The unchecked growth of (dry litter) poultry operations must be addressed.

DEQ's regulatory scheme must take into account all aspects of the animal agriculture industry, including the individual and cumulative effects of the state's poultry operations (housing almost 200 million broilers, layers, and turkeys) on water quality, wildlife and community health.

Support increased funding to assist farmers transition to more environmentally friendly methods.

Cannot support taxpayer funding and subsidy to offset undue costs related to unnecessary regulation.

Urge DEQ to continue to increase attention to the processes it undertakes in soliciting public participation related to its draft General Permit review.

DEQ lacks the staff to carry out its implementation and enforcement duties, it should hire additional staff and inspectors.

DEQ to continue to increase attention to the processes it undertakes in soliciting public participation related to its draft General Permit review

Support increased funding to assist farmers transition to more environmentally friendly methods.

Animal agriculture accounts for two-thirds of receipts in the state's agricultural sector, which is our state's number one industry.

DEQ should partner with non-profits/organizations/research that seek to do research and quantify or investigate potential harms of the swine CAFO.

Industry as well as the state should be doing more to help operators manage the costs of better practices.

Time period for renewal applications submission date is too short while the general permit is still in draft.

Commenters recommended that DEQ assess current regulations applicable to facilities operating under the Swine Waste General Permit to determine what if any changes to the regulations would be required to substantially mitigate adverse impacts to nearby residents. Determine which changes are currently within NC DEQ's authority to make and develop a timetable to adopt them. For regulatory changes necessary to substantially mitigate the adverse impacts that NC DEQ cannot adopt, determine the source of the impediment to their adoption.

Response: Staff believe these comments address items that are beyond the scope and authority of these General Permits. The Division appreciates these comments and is supportive of legislative action and funding, and other efforts to protect the environment.

Staff Recommendations: *No changes.*

## **VI. REVISED STATE GENERAL PERMITS**

As a result of the public comments received and further information gathered by the Division during the course of the public comment period, the Division produced revised State General Permits that incorporate the Hearing Officer's recommendations previously discussed in this report. The Recommended General Permits are provided as Attachment 5.

## **VII. HEARING OFFICER RECOMMENDATION**

Based upon the information contained in this report, consideration of the comments received, a thorough review of all the information and facts that are pertinent to the development of these permits, and an analysis of the revised permits, the Hearing Officer makes the following recommendation:


- The permit changes identified in staff recommendations of this report should be incorporated into the permits.
- Condition III.18 should be modified to recognize that future electronic reporting tools must be used when available. The condition should read:

*The Permittee shall submit an annual report by April 1 of each year for the previous calendar year's activities. The report must be filed using the form in Attachment A. These reports will be kept on file at the Department and made available for public review upon request.*

*Upon written notification from the Director, the permittee shall utilize a Division approved electronic reporting tool for the submission of the annual report. Permittee may request in writing a waiver from the electronic reporting requirement. Waiver requests shall justify why the reporting tools cannot be reasonably used by the permittee and include an estimate of time the waiver will be needed. Waiver requests shall be submitted a minimum of one (1) month prior to the annual report submittal date – [15A NCAC 02T .0108(b)]*

- Prior to the next renewal period, the Division should thoughtfully evaluate the groundwater monitoring data that it received from the new requirements in these General Permits. The data should be analyzed to determine if this requirement should be continued, eliminated, or expanded in the next general permit cycle.

The Director should adopt the Recommended General Permits contained in Attachment 5. These permits should be issued with an effective date of October 1, 2019.

  
Jeffrey O. Poupart, Hearing Officer  
Water Quality Permitting Section Chief  
North Carolina Division of Water Resources

