



ROY COOPER
Governor

MEMORANDUM

TO: ENVIRONMENTAL REVIEW COMMISSION
The Honorable Jimmy Dixon, Co-Chair
The Honorable Chuck McGrady, Co-Chair
The Honorable Trudy Wade, Co-Chair

FISCAL RESEARCH DIVISION
Ms. Lanier McRee, Mr. William Childs

FROM: Mollie Young, Director of Legislative Affairs, NCDEQ

SUBJECT: 2016 Animal Waste Management Annual Report

Pursuant to G.S. 143-215.10M, “*the Department of Environmental Quality shall submit to the Environmental Review Commission and the Fiscal Research Division a report on the permitting, inspection, and compliance activity of animal waste operations across the state,*” I have attached the 2016 Animal Waste Management Report as the formal submission of this report.

If you have any questions or need additional information, please contact me by phone at 919-339-9433 or via e-mail at mollie.young@ncdenr.gov.

cc: Jay Zimmerman, Director, Division of Water Resources, NCDEQ
Mariah Matheson, Legislative Analysis Division, NCGA

**Department of Environmental Quality
Annual Report on Animal Waste Operations
Permitting, Inspection and Compliance Activities
July 1, 2015 through June 30, 2016**

In keeping with the requirements of G.S. 143-215.10M, the N.C. Department of Environmental Quality reports annually to the Environmental Review Commission and Fiscal Research Division on the permitting, inspection and compliance activity of animal waste operations across the state. Accounting for activities required under G.S. 143-215.10F and S.L. 1997-443 (and its subsequent amendments) is also included in this report.

General Statute 143-215.10F requires annual inspection of every permitted animal operation by the N.C. Division of Water Resources (DWR). Under S.L. 1997-443, the N.C. Department of Agriculture and Consumer Services, Division of Soil and Water Conservation (DSWC) has been conducting a pilot project inspecting swine operations in Brunswick, Columbus, Jones and Pender counties. Effective July 1, 2011, Session Law 2011-145 removed the requirement for DSWC to inspect each animal operation annually and removed funding for the operations reviews. As a result, DWR conducts all routine animal operation inspections except for those facilities located in the above mentioned counties. DSWC continues to perform pilot program inspections in those four counties under S.L. 1997-443, and provides technical assistance and operation review inspections upon request.

The tables below indicate the number of inspections performed by the DWR and the DSWC, the numbers of violations identified during inspections, enforcement actions initiated and permits issued July 1, 2015 through June 30, 2016.

Overall, the two divisions conducted 2,559 compliance inspections and operation reviews during the 2015-2016 fiscal year throughout the seven regional offices (Table 1). Regional office abbreviations are explained at the end of this document. Each facility received at least one compliance inspection by DWR, or by DSWC in pilot counties.

Table 1. Inspection activities of DWR and DSWC staff during the 2015-2016 fiscal year.

| INSPECTIONS | ARO | FRO | MRO | RRO | WARO | WIRO | WSRO | State Totals |
|--|-----------|------------|-----------|------------|------------|------------|------------|--------------|
| DWR Total number of inspections completed | 31 | 848 | 91 | 238 | 543 | 455 | 121 | 2327 |
| Routine DWR annual compliance inspections | 22 | 739 | 86 | 198 | 447 | 411 | 91 | 1993 |
| Inspections conducted due to complaints | 4 | 3 | 4 | 2 | 1 | 3 | 3 | 19 |
| Follow-up of previous review or inspection | 5 | 1 | 2 | 9 | 32 | 10 | 16 | 75 |
| Emergency Notification | 0 | 0 | 0 | 2 | 19 | 29 | 11 | 61 |
| Lagoon Evaluations | 0 | 104 | 0 | 27 | 42 | 1 | 0 | 174 |
| Other inspections | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 5 |
| DSWC Total number of compliance inspections completed* | | | | | 46 | 117 | | 195 |
| Routine DSWC annual compliance inspections | | | | | 45 | 108 | | 152 |
| Inspections conducted due to complaints | | | | | 0 | 2 | | 6 |
| Follow-up of previous review or inspection | | | | | 0 | 1 | | 3 |
| Emergency Notification | | | | | 1 | 0 | | 1 |
| Response to DWR referral | | | | | 0 | 6 | | 6 |
| Other inspections | | | | | 0 | 0 | | 27 |
| DSWC Total number of operation reviews completed** | 0 | 0 | 0 | 0 | 31 | 38 | 0 | 37 |
| Routine operation reviews | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 1 |
| Technical Assistance | 0 | 0 | 0 | 0 | 0 | 17 | 0 | 18 |
| Follow-up of previous review or inspection | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 1 |
| Emergency Notification | 0 | 0 | 0 | 0 | 0 | 14 | 0 | 14 |
| Other inspections | 0 | 0 | 0 | 0 | 27 | 3 | 0 | 3 |
| Totals | 31 | 848 | 91 | 238 | 620 | 610 | 121 | 2559 |
| Total number of Animal Operations requiring Inspections and Operations Reviews during this year | 20 | 738 | 71 | 215 | 508 | 668 | 92 | 2312 |

*Pilot Project, S.L. 1997-443 and subsequent amendments.

** Total number of permitted facilities.

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Table 2 presents the total number of animal permits issued by DWR by regional office in FY 2015-16. This number includes new projects, as well as any modifications made to existing permits including renewals. Approximately 2,300 farms are covered under State General Permits, which are renewed on a five-year cycle.

Table 2. Permits issued by DWR for animal operations in each Regional Office during July 1, 2015 through June 30, 2016.*

| ANIMAL OPERATIONS PERMITS ISSUED | | ARO | FRO | MRO | RRO | WARO | WIRO | WSRO | State Totals |
|----------------------------------|--|----------|-----------|----------|-----------|-----------|-----------|----------|--------------|
| Swine | | 0 | 23 | 0 | 9 | 21 | 32 | 0 | 85 |
| Cattle | | 0 | 0 | 5 | 2 | 0 | 0 | 8 | 15 |
| Poultry | | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| Horses | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Manure Hauler | | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 3 |
| Totals | | 1 | 23 | 5 | 14 | 23 | 33 | 8 | 107 |

* Includes modifications, renewals and new projects

Tables 3 and 5 provide a summary by regional office of numbers and types of deficiencies and violations found during DWR and DSWC inspections over the past fiscal year. Some of these violations were self-reported and were included in the table to provide a complete picture of the number of deficiency or violation letters issued.

Table 3. Deficiencies and violations found during DWR and DSWC inspections during the past fiscal year by Regional Office.

| DEFICIENCIES AND VIOLATIONS IDENTIFIED | ARO | FRO | MRO | RRO | WARO | WIRO | WSRO | State Totals |
|---|-----|-----|-----|-----|------|------|------|--------------|
| Deficiencies and Violations found during DSWC operations reviews and DWR inspections* | 7 | 88 | 8 | 23 | 79 | 92 | 29 | 326 |
| Number of facilities receiving notice deficiency from inspections** | 2 | 116 | 2 | 13 | 59 | 2 | 4 | 198 |
| Number of facilities receiving notice violation from inspections** | 9 | 3 | 10 | 8 | 33 | 7 | 4 | 74 |
| Enforcement actions initiated for violations noted during this year*** | 2 | 7 | 3 | 5 | 13 | 13 | 4 | 47 |

*Violation totals include violations noted during both operation reviews and compliance inspections and may include multiple violations at a single facility.

**Some violation letters were sent due to violations that were self-reported and not discovered during an inspection.

***Some enforcement actions being developed by the regional staff are normally not shown as actions initiated during that year. These actions will be included in the next annual report.

Out of the 2559 inspections, approximately 12 percent of the inspections identified violations (Table 4). Note that each inspection reviews seven major items and with 2559 inspections, there is the potential for a total of 17,913 major violations. There were 326 violations identified (less than 1 percent of the universe of potential violations). Inadequate freeboard, unpermitted discharges from the systems and evidence of over application were the most common violations and deficiencies (Tables 4 – 6). The high number of freeboard violations is mainly attributed to the extended period of chronic rainfall during the winter months of 2015-16. Cattle and swine facilities had the highest number of violations and deficiencies among the types of animal operations (Table 6).

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Table 4. A breakdown of specific violations discovered during DWR and DSWC inspections during the past fiscal year.

| DEFICIENCIES AND VIOLATIONS IDENTIFIED | Total number of inspections with identified problem | Percent of total problems identified | Percent of total inspections completed (2559) |
|---|---|--------------------------------------|---|
| Discharges from Animal Waste Management System | 31 | 9.5% | 1.2% |
| Of the total discharges identified, the number of discharges that reached surface waters of the state | (22) | (6.7%) | (0.9%) |
| Inadequate Freeboard (Permitted Farms) | 206 | 63.2% | 8.1% |
| Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot | (82) | (25.2%) | (3.2%) |
| No Certified Operator in Charge | 0 | 0.0% | 0.0% |
| Evidence of over application | 66 | 20.2% | 2.6% |
| Does not meet setbacks | 2 | 0.6% | 0.1% |
| Inadequate land | 0 | 0.0% | 0.0% |
| Crop differs from that stated in Certified Animal Waste Management Plan | 21 | 6.4% | 0.8% |
| Totals* | 326 | 99.9% | 12.8% |

Table 5. Deficiencies and violations discovered during DWR and DSWC inspections by Regional Office over the past fiscal year.

| DEFICIENCIES AND VIOLATIONS IDENTIFIED | ARO | FRO | MRO | RRO | WARO | WIRO | WSRO | State Totals |
|---|----------|-----------|----------|-----------|-----------|-----------|-----------|--------------|
| Discharges from Animal Waste Management System | 4 | 3 | 0 | 5 | 10 | 7 | 2 | 31 |
| Of the total discharges identified, the number of discharges that reached surface waters of the state | (4) | (2) | (0) | (3) | (5) | (6) | (2) | (22) |
| Inadequate Freeboard (Permitted Farms) | 2 | 75 | 2 | 13 | 45 | 59 | 10 | 206 |
| Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot | (0) | (9) | (1) | (3) | (22) | (44) | (3) | (82) |
| No Certified Operator in Charge | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Evidence of over application | 1 | 9 | 0 | 5 | 20 | 24 | 7 | 66 |
| Does not meet setbacks | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Inadequate land | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Crop differs from that stated in Certified Animal Waste Management Plan | 0 | 1 | 6 | 0 | 3 | 2 | 9 | 21 |
| Totals | 7 | 89 | 8 | 23 | 79 | 92 | 29 | 327 |

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Table 6. Deficiencies and violations found during inspections by DWR and DSWC at each type of animal operation over the past fiscal year.

| DEFICIENCIES AND VIOLATIONS IDENTIFIED | | Swine | Cattle | Poultry | Horses | State Totals |
|---|--|-------------|------------|-----------|----------|--------------|
| Discharges from Animal Waste Management System | | 26 | 4 | 1 | 0 | 31 |
| Of the total discharges identified, the number of discharges that reached surface waters of the state | | (17) | (4) | (1) | (0) | (22) |
| Inadequate Freeboard (Permitted Farms) | | 188 | 16 | 2 | 0 | 206 |
| Of the total inspections identified with inadequate freeboard, the number of inspections with freeboard noted at less than 1 foot | | (76) | (4) | (2) | (0) | (82) |
| No Certified Operator in Charge | | 0 | 0 | 0 | 0 | 0 |
| Evidence of over application | | 58 | 7 | 0 | 1 | 66 |
| Does not meet setbacks | | 1 | 1 | 0 | 0 | 2 |
| Inadequate land | | 0 | 0 | 0 | 0 | 0 |
| Crop differs from that stated in Certified Animal Waste Management Plan | | 9 | 12 | 0 | 0 | 21 |
| Totals | | 282 | 40 | 3 | 1 | 326 |
| Total Number of Animal Operations | | 2103 | 185 | 20 | 4 | 2312 |

Regional Office Abbreviations:

- ARO – Asheville Regional Office
- FRO – Fayetteville Regional Office
- MRO – Mooresville Regional Office
- RRO – Raleigh Regional Office
- WARO – Washington Regional Office
- WIRO – Wilmington Regional Office
- WSRO – Winston-Salem Regional Office