

Missouri Clean Water Commission Meeting
Department of Natural Resources
1101 Riverside Drive
Jefferson City, Missouri

December 6, 2017

**Administrative Hearing Commission's Recommended Decision Regarding
Trenton Farms RE, LLC
Permit Appeal No. 16-3924 CWC**

Issue: This agenda item requests a decision from the Missouri Clean Water Commission (CWC) regarding appeal No. 16-3924 CWC. This appeal is of the general permit number MOGS10520.

Background: On December 23, 2016, Petitioner Hickory Neighbors United, Inc. filed a complaint appealing the Department's issuance of the permit. The record can be found in the attached recommended decision from the Administrative Hearing Commission (AHC). Counts I, III, and IV remain subject in the recommended decision. Counts II, V, VI, VII, and VIII were dismissed as detailed in the record. The remaining counts pertain to the 100-year flood plain, land application and flood plain, and the Nutrient Management Plan.

A hearing was held on May 4-5, 2017. The hearing on May 5, 2017, was continued by agreement of the parties to June 21, 2017. The AHC held a further hearing on June 21, 2017, and issued a recommended decision on August 31, 2017.

AHC Recommendation: The AHC concluded that the Department has met its burden of proving that the operating permit for Trenton Farms RE, LLC was issued in accordance with current law and regulations. The AHC recommends that the CWC sustain the Department's decision granting the permit.

Recommended Action: The Department recommends the Commission hear from the attorneys of the parties and make a decision on the appeal.

List of Attachments:

- Administrative Hearing Commission's Recommended Decision

Before the
Administrative Hearing Commission
State of Missouri



IN RE TRENTON FARMS RE, LLC,
PERMIT NO. MOGS10520

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No. 16-3924

RECOMMENDED DECISION

The Administrative Hearing Commission recommends that the Missouri Clean Water Commission (CWC) sustain the Department of Natural Resources' (Department) decision to issue Trenton Farms RE, LLC (Trenton Farms) a Missouri State Operating Permit (the permit) to operate a concentrated animal feeding operation (CAFO).

Procedure

On December 23, 2016, Petitioner Hickory Neighbors United, Inc. (Hickory Neighbors) filed a complaint appealing the Department's issuance of the permit. On January 4, 2017, the permittee, Trenton Farms, filed a motion to intervene, which we granted on January 6, 2017. On January 10, 2017, the Department filed a motion for more definite statement, or in the alternative, motion in limine. On January 10, 2017, Trenton Farms filed a motion to strike, or in the alternative, make more definite and certain. In response, on January 18, 2019, Hickory Neighbors asked for leave to file an amended complaint, which we granted, and the amended complaint was deemed filed per our order of January 23, 2017. On January 25, 2017, the Department filed its answer, and on January 31, 2017, Trenton Farms filed its answer and a motion for decision on the pleadings.

After the motion for a decision on the pleadings was fully briefed by all parties, we issued an order on February 28, 2017 granting in part the motion and dismissed Counts V, VI, and VII of Hickory Farms' amended complaint. We denied Trenton Farms' motion with respect to Count II. We incorporate the order dated February 28, 2017 into this Recommended Decision by reference.

We held a hearing on May 4-5, 2017. Assistant Attorney General Timothy Duggan represented the Department. Robert Brundage, Newman, Comley & Ruth, P.C., represented Trenton Farms. Stephen Jeffery, Jeffery Law Group, LLC, represented Hickory Neighbors. At the May 4, 2017 hearing, Hickory Neighbors voluntarily dismissed Count II of the amended complaint. The hearing on May 5, 2017 was continued by agreement of the parties to June 21, 2017.

On May 16, 2017, pursuant to a motion by Hickory Neighbors, we granted leave to correct paragraph 22 of the amended complaint because of a typographical error. On June 2, 2017, Hickory Farms filed notice that it would not go forward to Count VII (1,000 foot buffer)¹ of its amended complaint. Therefore, we order that the correct count containing the buffer allegations, Count VIII, be dismissed. The remaining counts of the amended complaint that are the subject of this recommended decision are Counts I, III, and IV.

We held a further hearing on June 21, 2017, and the parties completed presenting their cases. The matter became ready for our recommended decision on July 14, 2017, the date the final written arguments were filed.

¹ Hickory Farms referenced Count VII (1,000 foot buffer) of the amended complaint regarding a building that it alleged was within 1,000 feet of the proposed CAFO buildings; however, that count is actually Count VIII. Therefore, we are dismissing Count VIII accordingly.

Findings of Fact

1. Hickory Neighbors is a Missouri corporation registered with the Secretary of State. In part, its corporate purpose is to promote public awareness of environmental impacts relating to CAFOs that may be located in and near Grundy County, Missouri.

2. Hickory Neighbors' bylaws include a purpose statement that lists the following purposes:

- a. To promote educational awareness regarding the adverse economic and environmental impacts related to concentrated animal feeding operations;
- b. To promote public awareness regarding the potential presence of concentrated animal feeding operations in and near Grundy County, Missouri;
- c. To attend and participate in any and all activities conducted by the Missouri Department of Natural Resources and/or U.S. Environmental Protection Agency regarding concentrated animal feeding operations;
- d. To retain accountants, legal counsel, and other persons to provide assistance to the Corporation in its activities; and
- e. To participate in litigation and other legal and/or administrative activities regarding any concentrated animal feeding operation proposed to be located in or near Grundy County, Missouri.

3. Hickory Neighbors has 65 members, with homes or farms located near the CAFO that Trenton Farms proposes to build and operate in Grundy County ranging from one mile or more from the proposed location.

4. Lee Ann Williams Searcy, James Williams, Cathy Rice and Rex Searcy are members of Hickory Neighbors. They testified at the hearing and expressed concerns with the proposed CAFO, including flooding of the area, possible pollution (by runoff from fields

included in the CAFO land application of manure) of the nearby Hickory Creek and Thompson River where they fish, and the overall impact of having a CAFO in their neighborhood.

Williams testified that the proposed CAFO area floods at least once a year.

5. Searcy and Rice both witnessed flooding in April 2017 of the proposed land application fields and the area of the proposed CAFO building site and testified that the area frequently floods.

6. The Department issued the permit to Trenton Farms on November 23, 2016. The permit is a general permit which is a template, and it expires on January 27, 2018. Trenton Farms' permit also expires on January 27, 2018.

7. Hickory Neighbors timely filed a complaint to appeal the Department's issuance of the permit, pursuant to § 621.250.

8. Trenton Farms is a limited liability company in good standing organized in Missouri on March 25, 2015 with a perpetual duration.

9. Gorden Wray, CAFO permit writer from the Department, reviewed the permit application and determined it met all requirements for an operating permit. Wray is very familiar with all of the permit requirements and understands what is required to determine whether an application meets the statutes and regulations.

10. Wray reviews permits for compliance with the requirements of the regulations and the statutes and to make sure that the submitted application meets all the requirements before he recommends issuance of a permit.

11. The operating permit issued to Trenton Farms is a Class 1C CAFO state no discharge permit where there can be no discharge of the manure for any reason. The permit allows Trenton Farms to have 1000-2,999 animal units. An animal unit is based upon the size in pounds of the pig. For example, 1 animal unit of pigs 55 pounds or less is equivalent to 10 piglets and if the pigs are 55 pounds or more, 1 animal unit is equivalent to 2.5 swine.

12. Publication 915 "Guide to Animal Feeding Operations" is a fact sheet publication previously found on the website of the Department. It is no longer on the website, but it is still available from the Department, if requested. At all relevant times, Publication 2351 "Animal Feeding Operation Permits and Regulations in Missouri" was on the Department's website.

13. Wray did not consider either Publication 915 or Publication 2351 in determining that Trenton Farms met the requirements for a permit.

14. Trenton Farms' permit application proposed three buildings: a gestation barn, a farrowing barn, and a GDU barn. Two will have deep pits and one will have a shallow pit that drains into the next pit. The pits have in excess of 180 days of storage of manure. No discharge is allowed from the pits per the permit.

15. Trenton Farms' permit application proposed 1178 acres under the control of the CAFO for land application of the manure via injection into the ground under a Nutrient Management Plan (NMP). The NMP includes fields located in Grundy and Putnam Counties. Trenton Farms can also give away or sell the manure to others at its discretion. The NMP is governed by regulations and by the "Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard"² published by the Department and adopted by the CWC.³

16. Because the permit that was issued is a state no discharge permit, there can be no discharge due to the land application of the manure as proposed by the NMP. This means that the land application rates proposed must be fairly consistent because the CAFO is basically guaranteeing no run off.

Flood plain

17. In the 1980's, the Federal Emergency Management Agency (FEMA) issued a Flood Hazard Boundary Map for Grundy County, Missouri that delineated the 100-year flood.

² Respondent's Exhibit J.

³ Exhibit D, 10 CSR 20-6.300.

Since then, FEMA has not issued any Letter of Map Revision (LOMR) or Conditional Letter of Map Revision (CLOMR) to revise the 100-year flood plain designation that it made. FEMA converted its boundary map to a regular flood insurance rate map without performing any additional studies. The FEMA map did not include a detailed study of elevations of the land or consider the elevations and contours of the land based upon the USGS when outlining potential flood boundary areas. It is not related to geo-coordinates, it does not include or make any determinations of base flood elevation calculations for either Hickory Creek or the Thompson River, and it is not digitized. The area of concern for the Trenton Farms permit is Zone A of the FEMA map. While the FEMA map is the official designation of the floodplain, this particular map is not a reliable indicator of exactly where the flood waters may actually be located in the event of a 100-year flood event of either the Thompson River or the Hickory Creek. The FEMA Zone A map alone is insufficient to base a determination of whether the proposed Trenton Farm buildings are located within the flood plain or whether the buildings are protected from flood or inundation.

18. While the estimated FEMA boundary line of Zone A runs across the site and buildings, how you interpret the line depends on whether you are looking at the plan view (where site is generally located on the map) or looking at the elevation view (where the site is generally located and where the flood plain elevations are located) because the FEMA Zone A map does contain or consider elevations and land contours.

19. With its application, Trenton Farms submitted a report from John Holmes, P.E., Allstates Consultants. Holmes is a certified flood plain manager and former statewide hydraulic engineer for the Missouri Department of Transportation (MODOT) who primarily worked with river modeling and determining flood base level elevations in connection with roads and bridges. Holmes is an expert in this area.

20. The standard software to determine flood base level elevations is the Army Corps of Engineers' HEC-RAS modeling, which stands for hydraulic engineering center river analysis system. Using this software, obtaining a site survey of elevations and cross sections, researching the USGS Dem data, and incorporating this data into the HEC-RAS software allows a modeling of the floodplain to occur in order to determine the elevations and location of the 100-year flood.

21. Holmes researched the Trenton Farms project and conducted site surveys with cross section elevations of the Trenton Farms project and the Thompson River and Hickory Creek in a digitalized format. From his professional determinations and review, he aligned the boundary line for Zone A of the FEMA map in relation to the Trenton Farms site. Holmes also used the USGS contour maps and elevations. Holmes performed a HEC-RAS floodplain model and determined and calculated the base elevations of the 100-year flood for both the Thompson River and Hickory Creek. In doing so, he analyzed the hydrological impact of flood waters and developed flow rates for both the Thompson River and Hickory Creek.

22. Scour is the erosion force of water that can wash away soil or land material and leave a hole during flood events.

23. Holmes checked the modeling for scour and believed any scour would be low due to the wide floodplain, velocities of the water at the building site, and the vegetated berm that the buildings will be built upon. Holmes also verified his calculations with the bridge information he reviewed on scour from MODOT. Holmes also checked the MODOT map pertaining to the base flood elevations in both directions of Highway W and found that it was consistent with the surveys.

24. As a professional engineer, Holmes certified and sealed the Floodplain Modeling Report in the permit application. He concluded that the Trenton Farms CAFO was protected from inundation or damage.

25. Wray relied on the certification of the floodplain report from Allstates and the seal by Holmes in determining that the Trenton Farm buildings are located above the floodplain elevations and protected from flood or inundation.

26. In evaluating the entire permit application, Wray relied on the sealed certification of the project engineer.

27. The project engineer ⁴ for Trenton Farms certified the following in regard to the permit application:

⁴ Cover page of Exhibit L.

28. Paul H. Reiz, P.E., is a registered professional engineer and a certified floodplain manager who testified on behalf of Hickory Farms. Reiz is familiar with FEMA mapping (including LOMR and CLOMR), flood plain designations, HEC-RAS modeling, and site surveying. Reiz is an expert.

29. Reiz reviewed the work of Holmes and the Trenton Farms permit application. He testified that more cross sections on a survey will improve HEC-RAS modeling, but agreed that it was a matter of professional judgment as to whether more than one cross section survey was needed to determine the floodplain elevations in a case where there was at least 3 feet of freeboard or area above any base flood elevation. There is at least 3 feet of freeboard in the proposed Trenton Farms buildings. The Holmes modeling employed at least one surveyed cross section of Hickory Creek at the proposed location of the CAFO.

30. While Reiz did not agree with the methodology used by Holmes and would have used a different method to determine the floodplain elevations, he agreed that it was merely a difference of professional judgment, that the modeling was reasonable, and that it met the standard of care in the area of engineering.

31. Reiz agreed that the Holmes' floodplain modeling report was accurate plus or minus one to two feet, but closer to one foot.

32. Reiz had a concern about scour on the berm of the CAFO buildings; however, he agreed that the floodplain was wide at that point, water velocities would be low, and any scour would be minimal.

33. The FEMA map Zone A boundary as estimated by Holmes intersects the CAFO buildings with manure storage structures. Thus, these buildings are within the 100-year floodplain boundary as designated by FEMA; however, taking into account the base flood elevations of the 100-year floodplain, the worst case scenario is that flood elevation is 744.35', without any fill, of the principal building sites. This base flood elevation is 13.5' above any

opening in the CAFO buildings, plus or minus a foot. The lowest proposed pit of any CAFO building, the gestation barn, is 3.5' above the base flood elevation. Therefore, all of the proposed buildings are above the base flood elevation, even though located in the area mapped by Holmes as within the boundary lines of FEMA map Zone A.

34. The Trenton Farms buildings will be built upon a berm or a fill that raises their elevations and that further diverts the base flood elevations. It is possible for Trenton Farms to apply for and FEMA to issue a LOMR-F (Letter of Map Revision-Fill) based upon the fill in the floodplain and the floodplain modeling report from Holmes.

35. Glen Briggs, the Gundy County Emergency Management Director and Flood Plain Administrator, sent a letter to the Department dated October 25, 2016 stating that Trenton Farms' property was "outside Zone A and thus would not need a flood development permit from Grundy County."⁵ This was not a part of the permit application, but was additional information received by the Department.

36. The Trenton Farms building site is protected from inundation or damage due to the 100-year flood. The buildings of the CAFO in the permit application are above the 100-year flood. Scour is not of concern at the Trenton Farms site because the floodplain slopes are shallow and the velocity of the water at the site is minimal.

Nutrient Management Plan (NMP)

37. Manure from swine contains nitrogen and phosphorus—substances that can be added to land for the purposes of fertilizing the crops to be grown there either in addition to or in place of commercial fertilizers.

38. Phosphorous may be over applied when using the nitrogen rate because of volatilization (evaporation of phosphorus and nitrogen).

⁵Exhibit M.

39. As part of its application, Trenton Farms submitted a NMP that identified the fields upon which manure will be land applied by the injection method. The NMP includes the initial soil testing of the fields, calculations of erosion, and calculations of the rates of application of nitrogen and phosphorus that can be applied to each field. The NMP used assumed values or book values of nitrogen and phosphorus of swine manure in determining application rates.

40. The NMP proposed protocols for setbacks, which are areas of a field that are excluded from a NMP and where manure will not be applied. For example, Trenton Farms' NMP included aerial photographs of fields where some of the setbacks were identified for property boundaries and public roads. The permit application did not require Trenton Farms to specifically show and establish where setbacks or buffers would be located. This information was used by Trenton Farms to help determine the approximate acreage available for application of manure.

41. The applicator of the manure follows the NMP protocols in the permit. The applicator must also keep records of monitoring of the manure nutrient, the field soil and operational monitoring. Adjustments must be made to the conditions existing at the time of application. For example, application cannot occur if precipitation that may cause runoff is forecasted or if the ground is saturated, frozen, or snow covered.

42. In a non-discharge permit such as Trenton Farms', the NMP may be revised or amended at any time without Department approval.

43. Publication 915⁶ states on page 5 under Floodplain: "Areas with flood frequencies greater than once in 10 years should not be the only land available for land application of animal waste." Publication 2351⁷ does not contain this sentence. Publication 915 has not been included in CWC regulations.

⁶ Exhibit F.

⁷ Exhibit G.

44. Four fields in the NMP are calculated to receive one pound of phosphorus over the recommended application rate if applied at the rates in the NMP submitted with the application. The one pound over the recommended rate occurs in fields MO602419P1300 (Field 1300); MO602419P4000 (Field 4000); MO602420P3400 (Field 3400); and MO602421P3500B (Field 3500B).

45. Fields 1300, 4000, 3400 and 3500B are all in Grundy County. These fields are located near the proposed CAFO with a total acreage of 171 acres.

46. The application of approximately 1 pound over for these fields is not concerning because of the use of book value on the manure and the volatilization that occurs during application. Before any application occurs, the actual manure will be tested to obtain the actual rates of nitrogen and phosphorus contained in the manure, and the application rate calculations will be adjusted to assure that the no discharge permit is accurate in the actual application of the nitrogen and phosphorus.

47. The one pound over application rate in Fields 1300, 4000, 3400, and 3500B in Trenton Farms' application is minor.

48. Mark Rice testified as an expert in the area of NMP. He is also a member of Hickory Farms. Rice is an extension specialist, an assistant director for a national manure waste management group, and a certified NMP planner. Rice's main concern is his calculation that the nutrients will be over applied in Fields 1300, 4000, 3400 and 3500B because the setbacks included in Trenton Farms' NMP do not take into consideration what he identifies as "ditches" and a "wetland" area. He identified these possible setbacks via Google Earth Maps from 2009, 2012, and 2015.⁸ Therefore, Rice's opinion is that the NMP Trenton Farms submitted will allow for over application of nitrogen and phosphorus of nearly 50% for Field 1300; 40% for

⁸ Exhibit 10.

Field 4000; 20% for Field 3400; and 24% for Field 3500B. Even though Rice calculates the rates differently, he did not dispute the land application rates specified in Trenton Farms' NMP.

49. All of the features Rice identified are located in the area of the fields that are used for cropland. Rice provided no explanation or definition.

50. Don Davis will be the applicator on these four fields. He owns most of the land Trenton Farms proposes using for its NMP. Davis has experience with 5 CAFO's on his farms and has used and followed various NMP's. He has a BS in science in farm operation from Iowa State University and an MBA. Additionally, he farms approximately 1600 acres a year himself. Davis testified that there were not ditches or wetland areas in the fields as indicated by Rice.

51. Fields 1300, 4000, 3400, and 3500B experienced some flooding in April 2017; however, the flooding did not prevent crops from being planted.

52. It is the applicator's responsibility to follow the NMP and to carry out the protocols established in the NMP. The permit holder has the direct responsibility to assure that all regulations are complied with and that no discharge occurs in the land application of manure.

53. The Trenton NMP has 1178 acres and only needs about 656 acres per year for application. Fields 1300, 4000, 3400, and 3500B are not required to be used every year for application. The additional acres provide Trenton Farms with the flexibility to properly manage land application and adjust the rate of application in accordance with the conditions of the land.

Evidentiary Rulings

Trenton Farms and the Department objected to the admission of deposition testimony and exhibits including Exhibit 9, the resume of Rice; Exhibit 10, Rice's report on the NMP for Trenton Farms; Exhibit 19, the deposition of Rice that was taken on June 5, 2017.

At the May 4 hearing, the parties asked that witnesses other than the party representatives as identified be excluded. The Commission required that witnesses be excluded. At that time, Rice was present at the hearing and did not exclude himself because he did not anticipate being a

witness in this case. Following the hearing on May 4-5, Rice was asked to testify as a witness by Hickory Farms. He was promptly identified as an expert, and both Trenton Farms and the Department participated in his deposition. Further, it is clear from the rebuttal testimony that Rice's deposition was shared with other witnesses. We conclude that because of the unique situation involved in the continuing of this hearing by the parties between May and June, and the fact that all parties had an adequate opportunity to depose and present rebuttal testimony, allowing the testimony of Rice does not unduly prejudice any party. Further, the decision to permit or exclude a witness to testify who is technically in violation of the rule of exclusion has been found to be within the trial court's discretion. *See Mansfield v. Horner*, 443 S.W.3d 627 (Mo. Ct. App. W.D. 2014).

Additional objections were raised that Rice's report contains discussion and information that is not relevant and beyond the scope of the pleadings, and that he relied on out-of-date Google Earth maps. These objections are overruled. The Commission finds Rice's testimony to be relevant and the objections are noted in terms of the weight to be afforded to Rice's testimony versus testimony of other witnesses who had the opportunity to physically view the land. Similarly, the objections that several features such as "ditch" and "wetland" remain undefined, again, that information is pertinent to the weight to be ascribed to Rice's testimony. Therefore, Exhibits 9, 10, and 19 will be a part of the record of this case. The parties also filed deposition designations that we paid particular attention to in deciding this case.

To clarify the record,⁹ we also admit the following exhibits and overrule all objections to their admission or consideration in this case: Exhibit 11, the resume of Paul H. Reitz, P.E.; and

⁹ The Commission notes that there appears to be some confusion in the discussion of admission of the depositions of Mark Rice and Paul H. Reiz (each pronounced during the hearing as "Rice") and some errors in the transcription as a result in referring to the depositions and exhibits related to these witnesses. This evidentiary ruling should clarify the record that may be transcribed in error due to the similarity of the names.

Exhibit 20, the deposition of Paul H. Reitz, P.E. together with the deposition exhibits contained with the deposition.

We accept Mark Rice and Paul H. Reitz, P.E. as expert witnesses per § 490.065.1.

Conclusions of Law

We have jurisdiction to conduct the hearing on appeal from a clean water permit and recommend a decision to CWC, under contested case procedure. Section 621.250.¹⁰ The Department bears the burden of proof in this case. Section 640.012.

We must judge the credibility of witnesses, as well as the weight and value of the evidence. We have the discretion to believe all, part, or none of the testimony of any witness. *Dorman v. State Bd. of Registration for the Healing Arts*, 62 S.W.3d 446, 455 (Mo.App. W.D., 2001). *Harrington v. Smarr*, 844 S.W.2d 16, 19 (Mo. App., W.D. 1992). When there is a direct conflict in the testimony, we must make a choice between the conflicting testimony. *Id.* The findings of fact reflect our credibility determinations.

Background

This is a second permit application for a CAFO in the same location by Trenton Farms. The first application to the CWC resulted in a decision that Trenton Farms did not meet the requirements of the regulations as to protection from the 100-year flood by the CWC and the Court of Appeals, *Matter of Trenton Farms Re, LLC v. Missouri Department of Natural resources, et al.*, 504 S.W.3d 157 (Mo. App. W.D. 2016). (*Trenton I*)¹¹

Count I—100 year floodplain

A central issue in this case is the location and effect of the 100-year floodplain. Hickory Neighbors argues that because two of the manure storage structures at the proposed CAFO are

¹⁰ Statutory references are to RSMo 2016 unless otherwise stated.

¹¹ We note that while many of the facts of *Trenton I* are the same as in this case as well as some of the legal issues, we make our recommendation based solely as to facts and testimony adduced in this case and our evaluation of the second permit.

located within the FEMA 100-year floodplain line and in FEMA Zone A, the Department has failed to comply with 10 CSR 20-8.300(5), particularly as that regulation has been interpreted by DNR Publication 915. Publication 915 states that “[a]nimal waste structures must be located above the 100-year flood level.” Further, Hickory Neighbors contends that *Trenton I* framed the dispositive issue as being whether the CAFO is located in a floodplain and concluded that there was no evidence to rely upon the engineer’s certification of compliance for all CAFO buildings and operations location as to the one hundred-year floodplain. *Trenton I* at 162.¹² Hickory Neighbors argues that because the buildings are located in the FEMA floodplain with no change in the FEMA map approved by FEMA through a LOMR or a CLOMR, the permit should have been denied.

The Department and Trenton Farms counter that the permit must comply solely with the statutes and regulation requirements and the law, that Publication 915 was not and should not be relied upon. Further, they contend that the evidence shows that the CAFO site is protected from inundation and meets the requirements of the regulation. Finally, they contend that a LOMR to the FEMA map is not required in this instance because flood insurance and a flood development permit are not at issue and regardless, a LOMR-F could be obtained at a later date and is not required for the permit.

Regulation 10 CSR 20-8.300(4) states in pertinent part:

(4) Location.

(A) Protection from Flooding—Manure storage structures, confinement buildings, open lots, composting pads, and other manure storage areas in the production area shall be protected from inundation or damage due to the one hundred- (100-) year flood.

¹² The Court of Appeals framed this issue by stating: “This protection [compliance with the regulation] may be accomplished by constructing all listed sites above the one hundred-year flood plain or by including with the permit application certification from an engineer that all relevant sites are protected.” *Trenton I* at 161.

The production area is defined in 10 CSR 20-6.300(1)(B)20 as:

The non-vegetated portions of an operation where manure, litter, or process wastewater from the AFO is generated, sorted, and/or managed. The production area includes the animal confinement area, the manure storage area, the raw materials storage area and the waste containment areas. The animal confinement area includes, but is not limited to ...confinement houses... . The manure storage area includes, but is not limited to...under house or pit storages. ...The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions, which separate uncontaminated storm water....

There is nothing in these regulations that adopt or incorporate by reference Publication 915. The CWC has not adopted Publication 915.

Publication 915 appears to be a description of multiple programs of the Department—not an officially adopted publication by the CWC. For example, it contains information regarding odors from CAFO's and the Air Pollution Control Program. The evidence was that Publication 915 was no longer found on the Department's website and a newer publication has replaced it. Further, the Department's employee, Wray, did not rely upon Publication 915 in determining whether the permit should be issued; he relied on the statutes and regulations.

In contrast, when the CWC incorporated the publication, *Missouri Concentrated Animal Feeding Operation Nutrient Management Technical Standard*, the CWC specifically referenced that publication as being approved and incorporated by reference into the regulation, 10 CSR 20-6.300 (3)(G)2. There is no similar mention of Publication 915 in CWC regulations. While Publication 915 may be helpful information to the public about CAFO's, it is not a regulation, nor should it be construed to be an interpretation by the CWC. We conclude that Publication 915 has no binding effect and is not an interpretation of the regulations.

10 CSR 20-8.300(4) requires that manure storage structures and confinement buildings and other manure storage areas "be protected from inundation or damage due to the one hundred- (100-)year flood." "This protection may be accomplished by constructing all listed sites above

the one hundred-year flood plain or by including with the permit application certification from an engineer that all relevant sites are protected.” *Trenton 1* at 161.

Trenton Farms’ permit application included certifications from two engineers—Holmes and the project engineer. They both certified that the buildings of the CAFO were protected from inundation and damage from the 100-year flood. Additionally, at the hearing, Holmes testified and explained his floodplain modeling. We found both experts, Holmes and Reiz, to be credible and knowledgeable about the use of the HEC-RAS modeling. Both Holmes and Reiz basically reached the same results—that the construction of the CAFO buildings was above the calculated flood elevation plain. Therefore, we find that that CAFO is sufficiently protected from inundation or damage due to the 100-year flood.

We further conclude the FEMA Map Zone A based upon Holmes’ analysis and professional judgment bisects the Trenton Farms CAFO buildings; however, this is only a boundary line and reliance on the boundary line without the additional calculations and modeling as to the floodplain elevations is not sufficient evidence upon which to make a determination of whether the buildings are protected. It is clear from the permit application that the FEMA map cannot be relied upon as the sole source. The flood plain modeling shows that even under the worst case scenario, all of the manure pits and buildings are protected from inundation or damage. Trenton Farms’ permit application meets the requirements of the regulations.

There is no requirement in the regulations that if a CAFO is located within a FEMA designated floodplain, a LOMR or CLOMR or even a LOMR-F be obtained before any permit can issue. The Grundy County Floodplain Administrator would be the designated official to insist on such requirements, and he has stated on behalf of Grundy County, that there is not a concern of the CAFO’s location. The purposes of a LOMR and CLOMR are related to flood insurance and the ability of a federally finance project to obtain funding. These are additional requirements that are not contained within the CWC’s regulations.

The Department has carried its burden to demonstrate that the permit is not deficient with regard to protection from inundation and damage from the 100-year flood.

Count III—Land application and flood plain

Hickory Farms contends that the proposed land application sites in both Grundy County and Putnam County conflict with Publication 915, Guide to Animal Feeding Operations, which states: “Areas with flood frequencies greater than once in 10 years should not be the only land available for land application of animal waste.”¹³ The Department and Trenton Farms argue that Publication 915 was only guidance, not an interpretation, and not incorporated in the regulation of the CWC. As discussed above, we agree.

We conclude that Hickory Neighbors’ witnesses showed that spring flooding has occurred in certain fields near the proposed CAFO and that these fields may be located within the FEMA Zone A flood zone. We also believe the testimony of Davis, who owns the particular fields and has planted crops and not had a flooding issue interfere with his farming of those fields.

Even if we were to conclude Publication 915 was applicable here, the evidence also established that there is approximately twice as much manure storage in the CAFO as required, there are twice as many fields as needed each year for land application, and that while some of the fields may be prone to flood, there are other fields available for land application of manure. Finally, even though Trenton Farms has included fields for land application, other alternatives such as selling or giving away manure to be applied elsewhere is within the regulation and Trenton Farms’ discretion.

¹³ Exhibit F, page 5.

Furthermore, the permit at issue remains a no discharge state permit. If land application of manure leads to any runoff, the permit can be enforced as emphasized by Wray in his testimony. The permit meets the requirements of the regulations and laws.

The Department has carried its burden to demonstrate that the permit is not deficient with regard to any runoff from land application of manure.

Count IV—Nutrient Management Plan

Hickory Neighbors argues that the NMP is deficient primarily because it incorporates land that should be setback and that the land's inclusion in the calculations for the NMP will cause an over application of nutrients. Count IV alleges particularly that there will be an over application of Nitrogen and Phosphorus in Fields 1300, 4000, 3400, and 3500B. The Department contends that the NMP meets the requirements of the regulations, 10 CSR 20-6.300(3)(G)1, and the Nutrient Management Technical Standards, 10 CSR 20-6.300(3)(G)2.

10 CSR 20-6.300 requires that the NMP:

- (5)(F)—Identify appropriate site-specific conservation practices to be implemented, including as appropriate buffers or equivalent practices, to control runoff of pollutants to waters of the state;
- (G) Identify protocols for appropriate testing of manure, litter, process wastewater and soil;
- (H) Establish protocols to land apply manure, litter, or process wastewater in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater[.]

Permits “require the development and implementation of a nutrient management plan.” 10 CSR 20-6.300(5). NMP’s are required to establish protocols that must be followed for application of manure to fields. 10 CSR 20-6.300(5)(H). The CWC requires setbacks from down-gradient surface waters. The Nutrient Management Technical Standards has a table of setbacks. These setbacks were incorporated into the NMP for Trenton Farms as a protocol.

As a state no discharge operation, Trenton Farms' application had to include the NMP. 10 CSR20-6.300(2)(E)2E(II). Though not required to do so by the regulations, Trenton Farms' NMP also identifies specific boundary and other setbacks on aerial maps for various fields. The regulations only require a NMP to include setback protocols. 10 CSR 20-6.300(5)(H). It was used to ascertain the potential available land for application of manure. Trenton Farms, as a state no-discharge operation, may revise and amend its NMP at any time without requiring Department approval. 10 CSR 20-6.300(5).

Hickory Farms' expert Rice contends that the setbacks were inaccurately determined and that this will therefore result in over application as to the particular fields. Rice agrees as to the land application rates specified in Trenton Farms' NMP, but his calculations would differ based upon the setbacks from the ditches and wetlands that he described. While we found Rice to be a credible witness in terms of his background and experience with NMP's, we conclude that the NMP contained the setback protocols that are required by the regulation. While the possibility exists for over application of Nitrogen and Phosphorus on certain fields contained within the NMP as alleged by Hickory Neighbors, that possibility is merely speculative. It does not establish that the permit does not meet the requirements of the regulations, nor does it mean that over application will occur. We give little weight to the setbacks identified by Rice based upon dated maps and insufficient descriptions and definitions of ditches and wetlands contained within the cropland that Davis has farmed for several years.

The ultimate responsibility for the NMP rests with the permit holder. The proposed applicator for Trenton Farms, Davis, is experienced with NMP's and we believe that he will do his best to make sure that the land application is carried out appropriately and that standards and records are kept.

The Department has carried its burden to demonstrate that the permit is not deficient with regard to the NMP.

Summary

The Department has met its burden of proving that the operating permit for Trenton Farms was issued in accordance with current law and regulations. We recommend that the CWC sustain the Department's decision granting the permit.

SO RECOMMENDED on August 31, 2017.


AUDREY HANSON MCINTOSH
Commissioner