STATE OF NORTH CAROLINA	IN THE OFFICE OF ADMINISTRATIVE HEARINGS
COUNTY OF COLUMBUS	11 EHR 12185

FRIENDS OF THE GREEN SWAMP and BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE, INC. Petitioners, v. N.C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF WASTE MANAGEMENT, Respondent. and WASTE MANAGEMENT OF THE CAROLINAS, INC., d/b/a WASTE MANAGEMENT OF WILMINGTON, Respondent-Intervenor.	)	**DECISION**

On May 2-3, 2012, Administrative Law Judge Melissa Owens Lassiter heard this contested case in Raleigh, North Carolina. On May 18, 2012, the undersigned issued a decision that Respondent acted properly in issuing a septage land application site permit to Respondent-Intervenor. On June 20, 2012, Respondent and Respondent-Intervenor filed a Joint Recommended Decision with the Office of Administrative Hearings. On June 29, 2012, Petitioners filed a response to such Recommended Decision.

APPEARANCES

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ISSUE

Whether Respondent DWM substantially prejudiced Petitioners' rights by exceeding its authority or jurisdiction, acting erroneously, failing to use proper procedure, acting arbitrarily or capriciously, or failing to act as required by law or rule in granting Septage Land Application Site Permit No. SLAS-24-08 (the "Permit") to Respondent-Intervenor?

APPLICABLE STATUTES AND RULES

N.C. Gen. Stat. § 130A, Article 9, "Solid Waste Management"
N.C. Gen. Stat. §§130A-290 and 130A-291.1
15A N.C.A.C. 13B.0837, 15A N.C.A.C. § 13B .0838,
15A N.C.A.C. 13B.0840, 15A N.C.A.C. 13B .0831 and .0832
40 CFR Part 503 and 40 CFR Part 257 (incorporated by reference)
15A N.C.A.C. .0835

EXHIBITS RECEIVED INTO EVIDENCE

Stipulated Joint Exhibits of All Parties:

1. SLAS-24-08 issued September 12, 2011 (the Permit).
2. Notice of Issuance of SLAS-24-08, September 12, 2011.
3. DWM's Response to Public Comments on SLAS-24-08, September 12, 2011.
4. Permit Application of Waste Management of Wilmington for land application site in Columbus, County, North Carolina, submitted in September, 2010, and including revisions and additions submitted through August 15, 2011.

For Petitioner:

1. E-mail from Chester Cobb to Cathy Ackroyd dated September 07, 2011, transmitting Summation of Changes to Draft SLAS.
2. Memorandum to Interested Parties re: Notice of Issuance of SLAS-24-08, with notation of Worley home on attached map.
3. Resumé, Barnes R. Bierck, P.E., Ph.D.

For Respondent:

1. Resumé of Chester Cobb, soil scientist, Solid Waste Section of Respondent of Waste Management.
2. Resumé of Michael Scott, Section Chief, Solid Waste Section of Respondent of Waste Management.

For Respondent-Intervenor:

1. Photograph of Septage Dewatering Facility.
2. Aerial Photograph of Permitted Land Application Site.

WITNESSES

For Petitioners:	Stephen Michael Smith, Harriett Wilkes Council, Amanda Regan, Worley, Barnes Bierck, P.E., Ph.D.
For Respondent:	Michael Edward Scott, Chester Cobb
For Respondent-Intervenor:	Albert Robert Rubin, Ph.D., Shawn Carroll

FINDINGS OF FACT

Based upon careful consideration of the applicable law, evidence received during the contested case hearing, and the entire record of this proceeding, and having weighed the credibility of the testimony of the witnesses, the Undersigned makes the following findings of fact:

I. Stipulated Facts

1. In September 2010, Respondent-Intervenor submitted a permit application to Respondent to operate a septage land application site off NC Highway 211 in Columbus County, North Carolina (the "Permit Application"). During the permit application review process, and through August, 2011, Respondent-Intervenor submitted additional information and revisions to the application.

2. From November 15, 2010, through March 14, 2011, as part of its review of the Permit Application, Respondent Division accepted written comments on the Permit Application.

3. On February 10, 2011, as part of its review of the Permit Application, Respondent held a public hearing on the Permit Application and a draft permit in Whiteville, Columbus County.

4. On September 12, 2011, Respondent issued a document entitled "Response to Public Comments," which presented Respondent's summary of the comments made during the public hearing and the written comments received during the public comment period and Respondent's responses to all such comments.

5. On September 12, 2011, Respondent issued Respondent-Intervenor a permit to operate a septage land application site, permit no. SLAS-24-08 (the "Permit").

6. The permitted site consists of approximately 39.1 acres, divided into four separate fields. The permitted septage land application site is located within an approximately 682 acre tract of land owned by Respondent-Intervenor.

7. On October 12, 2011, Petitioners filed a Petition for Contested Case Hearing challenging Respondent's issuance of the Permit. Petitioner alleged that:

a. Respondent erred in allowing the land application of liquid fractions resulting from 'dewatering' of septage as the liquid fraction is not 'a material derived from domestic treatment plant septage' in the definition of septage. G.S. 130A-290(a)(32)b."

b. Respondent erred in acting upon an incomplete permit application because the proposed annual volume of each type of septage defined in G.S. 130A-290(a)(32) proposed for land application per acre was not stated. Petitioners alleged that the applicant did not provide data on each type of septage proposed for land application, and that Respondent does not have the authority to grant a permit without it. As a result, "the application contains an incomplete, inconsistent, and flawed Site Assessment with accompanying nutrient management plan targeting calculating the volume of septage to be land applied per year. 15A NCAC 13B .0835(c)(4)."

c. Respondent did not have information necessary for evaluating submitted determinations of the proposed annual volume of each type of septage proposed for land application. 15A NCAC 13B .0835(c)(4). Petitioners further alleged that "the approach in the permit application of the method ('pilot dewatering activity') in which samples were produced for analyses, and used in the application for determining nutrient levels and application rates, is inadequate, incomplete, and unclear."

II. The Parties

8. Petitioners ("Friends") are an unincorporated citizen association registered and formed in Columbus County in 2001. Petitioners' mission is to advocate for the environmental protection of the Waccamaw basin, including the Green Swamp. Petitioners' members primarily live around the Lake Waccamaw drainage basin, including one member that lives approximately one-half a mile from the property on which Respondent-Intervenor would conduct land application activities under the Permit. (T. p 50). Petitioner Friends is an affiliate of Petitioner Blue Ridge Environmental Defense League, Inc. ("BREDL") (T. p 50). Petitioner Friends address is Friends of the Green Swamp, Post Office Box 133, Lake Waccamaw, North Carolina 28450.

9. Respondent ("Agency" or "DENR") is the state agency authorized to issue permits and enforce regulations under the Solid Waste Management Act, N.C.G.S. § 130A-290 *et seq*.

10. Respondent-Intervenor, Waste Management of the Carolinas, Inc., d/b/a Waste Management of Wilmington ("Waste Management"), owns and operates a collection facility and septage dewatering facility located at 3920 River Road, Wilmington, North Carolina, 28412 ("Wilmington Facility") (Jt. Exh. 4). Waste Management also owns the approximately 682 acre parcel of land in Columbus County which includes the 39.1 acres permitted for land application of septage under SLAS 24-08 (the "Property").

III. Property and Permitted Septage Land Application Site

11. The permitted septage land application site is located within an approximately 682-acre tract of land owned by Respondent-Intervenor in rural Columbus County, consisting of pine and scrub/cut-over areas. No structures are present on the site (Jt. Exh. 4). The permitted site consists of approximately 39.1 acres, divided into four separate fields (Jt. Stip. F. 6). Field 1 is approximately 15.1 acres. Field 2 is approximately 6.4 acres, Field 3 is approximately 5.2 acres, and Field 4 is approximately 12.4 acres (T. p 164).

12. Respondent-Intervenor's Exhibit 2 is an aerial photograph of the land application site delineating Fields 1, 2, 3, and 4, and is an accurate depiction of the permitted land application site (T. p 218). The property is located off Highway 211, and is approximately seven miles from Lake Waccamaw. (T. p 36).

IV. Waste Management's Dewatering Facility and Dewatering Process

13. Respondent-Intervenor operates a permitted septage dewatering facility at its Wilmington Facility (Jt. Exh. 4; T. p 168). Respondent-Intervenor's Exhibit 1 is a photograph of the septage dewatering facility (R-I Exh. 1), and is an accurate depiction of the septage dewatering facility, except for a rain cover that has subsequently been constructed after the photograph was taken. A rain cover was placed over the dewatering boxes to prevent rainwater from entering the boxes, and to provide shade for Respondent-Intervenor's employees working at the dewatering facility. (T. p 209)

14. At the time of the hearing, Respondent-Intervenor was delivering the liquid fraction of the dewatered septage to the Town of Wallace wastewater treatment plant, and the solids were being disposed in a local landfill. (T. pp.. 216-17)

15. Shawn Carroll is an environmental protection manager for Respondent-Intervenor in the South Atlantic area, which includes Georgia, South Carolina and North Carolina. Mr. Carroll is responsible for Respondent-Intervenor's environmental and regulatory compliance at the Wilmington Facility, including compliance oversight of the dewatering facility. (T. pp.. 206-207). Mr. Carroll has been in the environmental compliance management field for a total of 22 years (T. p 208).

16. The first step in the dewatering process at the Wilmington Facility occurs when Respondent-Intervenor's fleet of vacuum trucks collect septage materials, including restaurant grease trap waste, domestic septage, and portable toilet waste from the Wilmington and regional area. Once a collection vehicle has completed its route, the truck returns to the dewatering facility to unload the septage materials (T. p 210).

17. The collection trucks gravity feed the septage material into the primary solid screening boxes, which separates out large items including rags, plastic forks and other materials from the septage prior to dewatering. The septage material enters subsurface vaults where the material is mixed by an impeller that stirs up and homogenizes the septage materials. At this stage, lime is added to establish a pH level between 8 and 8.5 as to improve flocculation later in the dewatering process. Flocculation is most effective when the pH of the septage material is between 8 and 8.5. (T. pp. 210-211).

18. The septage material exits the subsurface vault, via piping into four horizontal aeration tanks, where the septage material is vigorously aerated to reduce biochemical oxygen demand and chemical oxygen demand. After aeration in the horizontal tanks, the mixed septage material is piped into the polymer injection control room where the polymer flocculent is added. The flocculent assists in removing the finer particles suspended in the liquid by causing them to adhere together to form larger particles. After completing this process, the septage materials are piped into two dewatering boxes (T. pp. 211-212; T. p 163).

19. The dewatering boxes are 20 yard roll-off containers lined with industrial grade filter media to allow the solid materials to separate out from the liquid materials, with the liquid materials passing through the filter media, and settling out in the bottom of the dewatering boxes. The liquid portion of the septage exits at the base of the dewatering boxes, while the solids are captured by the filter media. The liquid portion of the septage drains onto a concrete pad, and is collected through a drain sump, which pumps the liquid portion into four 25,000 gallon aerated vertical storage tanks. The dewatered septage is stored in these four vertical storage tanks.

20. Before loading the dewatered septage onto tanker trucks for transport to the land application site, lime would be added to the dewatered septage to adjust the pH to a pH of 12 for vector and pathogen control. The pH must remain at 12 (1) for the required 30 minute period for domestic septage, and (2) for two hours for grease septage or a mixture of domestic and grease septage.

21. Respondent-Intervenor personnel must test the septage to ensure the pH remains at 12 for the required period of time. (T. pp. 212-214; Jt. Exh. 1, Permit Condition #7; 40 CFR Part 503.30-33). The entire dewatering process typically takes about 12 hours (T. pp. 215-216).

22. The dewatering of septage allows the septage material to be more easily land applied, because the solids have been removed from the waste stream. Removal of grease solids prevents grease from coating and damaging plant tissue. The dewatering process also removes contaminants from the waste stream, including straws, plastics, rags or silverware that otherwise would end up on the land application site. The liquid portion of septage also more effectively

infiltrates into the soil profile and so there is a reduced possibility of septage accumulating on the ground surface. This allows the crops being grown on a land application site to better utilize the septage nutrients for crop growth. Dewatering septage also has the added benefit of reducing the amount of heavy metals typically found in septage as the majority of those metals are contained in the solid portion of the septage (T. pp. 176-178).

23. Respondent-Intervenor has been land applying non-dewatered septage for many years in Brunswick County, and has significant experience in operating the equipment for the land application of septage. (T. p 189)

V. Permit Application Process, Review and Issuance of SLAS 24-08

24. The Composting and Land Application Branch within Respondent's Solid Waste Section of DWM is responsible for the administration of the State's septage management program. The Composting and Land Application Branch's Septage Management Program oversees all aspects of the management of septage in North Carolina. Administration of the program includes permitting and oversight of approximately 500 septage management firms that pump, transport and dispose of septage; the permitting and oversight of approximately 140 sites utilized for the land application of septage; and the permitting of over 100 septage detention and treatment facilities for the management of septage (T. p 151).

25. Respondent has permitted a number of other land application sites in North Carolina where the liquid portion of septage is being land applied today. Today, approximately eight or nine other land application sites, out of approximately 140 permitted sites in the state, land apply dewatered septage (T. p 167).

26. Respondent has approximately 10 years of experience regulating the land application of dewatered septage since Respondent permitted the first land application site to receive dewatered septage around 2000 or 2001 (T. pp. 167-68).

27. When Respondent reviewed Respondent-Intervenor's permit application, Michael Scott was the branch head of the Composting and Land Application Branch. In spring of 2011, Mr. Scott was promoted to section chief of the Solid Waste Section of DWM, and was in this position when the Permit was issued to Respondent-Intervenor (T. pp. 152-153).

28. Mr. Scott has a Bachelor of Science degree from North Carolina State University in Agronomy, and a Masters degree from North Carolina State University in Crop Science. Mr. Scott is also a licensed soil scientist accredited by the State of North Carolina (T. p 152). (Resp. Exh. 2, Scott resume)

29. Chester Cobb is a soil scientist within the Solid Waste Section of Respondent DWM with a Master's Degree in soil science. His responsibilities include compliance inspections and the processing of new and renewal septage land application permit applications submitted to DWM for the eastern part of the State. (T. p 19). Mr. Cobb was the primary reviewer of Respondent-Intervenor's application (T. p 21). (Resp. Exh. 1, Cobb resume).

30. Dr. A. R. Rubin served as a consultant for Respondent-Intervenor on the development of the permit application, the site evaluation, and the nutrient management plan (T. p 125). Dr. Rubin is an professor emeritus in the agricultural engineering department at North Carolina State University. In 1978, Dr. Rubin joined the agricultural engineering department at NC State, and has extensive academic and regulatory experience in the areas of septage and septage management (T. p 138). During his career, Dr. Rubin worked with the United States Environmental Protection Agency to develop guidelines for the management of decentralized wastewater treatment plants, including guidelines for septage management. Now retired, Dr. Rubin consults with industry on permit applications and issues related to septage management, treatment, and disposal. Dr. Rubin has previously prepared over a dozen permit applications for septage land application sites (T. p 139).

31. The application process for a septage land application site requires an applicant to submit specific components as set forth under the 15A NCAC 13B .0800 rules. The septage land application permit components include, among other requirements, a two-page application, a site evaluation conducted by a licensed soil scientist, and a nutrient management plan (T. pp. 153-154).

32. Dr. Rubin, in coordination with Mr. Dwayne Graham, a licensed soil scientist, developed the site assessment and soil evaluation, and signed the site evaluation (T. pp. 125-126). The nutrient management plan for the Bermuda Grass and cover crop fields and for the pine fields was developed by Dr. Rubin and Mr. Scott Fredrick (T. p 126). Dr. Douglas Frederick, Professor of Forestry at N.C. State University, prepared the Forestry Management report for the pine fields. (See Documents in Jt. Exh. 4)

33. Mr. Carroll was responsible for gathering data included in the application, coordinating with DWM and other state agencies, and reviewing the application for completeness prior to submitting it to DWM. During the permit review process, Mr. Carroll communicated with DWM personnel in person, via email, and by telephone, including Mr. Scott, Mr. Cobb, and Mr. Gallo (T. p 220).

34. Respondent-Intervenor's permit application states that the waste material to be land applied is the clarified liquid portion of septage, consisting of 50% domestic septage, 45% grease trap waste and 5% portable toilet waste. The septage application rate was stated in the application to be 50,000 gallons per year, with potential reduction to 25,000 gallons per year for the pine tree fields. (Jt. Exh. 4).

35. Bermuda grass is the receiver crop for Field 2 and Field 3. Pine trees are the receiver crop for Field 1 and Field 4 (T. p 164; Jt. Exh. 4).

36. Mr. Cobb reviewed the permit application to ensure that Respondent had all information required to issue the requested permit. He also evaluated additional information related to potential endangered species impacts under the Natural Heritage Program and wetlands delineations on the property. Mr. Cobb developed the initial draft permit (T. p 22).

37. Mr. Cobb also met with his then-direct supervisor, Mr. Scott, to ensure that all required information had been provided and to review conditions to be imposed under the permit (T. p 21).

38. During the permit application review process, Respondent-Intervenor submitted additional information and revisions to the application as requested by Respondent. (Jt. Stip. F. 1.) Specifically, Mr. Cobb requested additional information relating to ownership of the property, an update to the endangered species study, and clarification of certain boundaries of the proposed land application fields (T. pp. 222-223).

39. By correspondence dated January 31, 2010 [sic: *actual date January 2011*], Respondent-Intervenor's District Manager, Chris McKeithan clarified that Respondent-Intervenor was not requesting approval to land apply industrial process waste under the requested land application permit (Jt. Exh. 4; T. pp. 198-199). Specifically, Condition 7 of the Permit addresses this as it excludes septage that may include waste resulting from any processes of industry, manufacture, trade, or business from the septage materials that may be land applied under the subject permit. (Jt. Exh. 1)

40. Per agency standard procedure, Mr. Scott and other representatives of Respondent visited the Property as part of DWM's review of the permit application. (T. p 156). During the site visit, Respondent's representatives took soil borings to evaluate the soil textural class, and to determine the approximate depth of the seasonal high water table to ensure that applicable regulatory requirements were met. Respondent's representatives walked each field proposed for land application (T. p 156). Respondent's soil borings in each of the four fields verified the soils report information included in the application (T. p 47). The site visit lasted approximately 8 hours. During this visit, Respondent's representatives also verified setbacks to wetlands and ditches to be included in the permit (T. pp. 221-222).

41. From November 15, 2010, through March 14, 2011, as part of its review of the Permit Application, DWM accepted written comments on the Permit Application (Jt. Stip. F. 2; Jt. Exh. 3). The public comments received focused largely on the proximity of the site to Lake Waccamaw, concerns over the septage materials to be land applied, concerns over the application rates of septage materials, and concerns over monitoring of the land application site (T. p 27).

42. Respondent's regulations do not require a public hearing where an application for the land application of septage is limited to an application rate of no more than 50,000 gallons per acre per year. However, due to public interest in the Permit application, and the comments received by the agency during the public comment period, Respondent deemed it appropriate to hold a public hearing (T. pp. 23-24).

43. On February 10, 2011, Respondent held a public hearing on the Permit application in Whiteville, Columbus County (Jt. Stip. F. 3). Members of Petitioner attended the public hearing, and raised concerns about the permit application related to noise, sound, air pollution, and truck traffic on Highway 211 (T. p 51). Other members had concerns about potential impacts to water quality at Lake Waccamaw (T. p 56).

44. On August 15, 2011, Respondent-Intervenor submitted a revised nutrient management plan to address comments and modifications requested by Respondent Specifically, DWM requested reductions in the realistic yield expectations ("RYE") for the Bermuda grass and Rye grass set forth in the nutrient management plan that was included in the initial application (T. pp. 42-43).

45. On September 12, 2011, Mr. Scott, as chief of the Solid Waste Section of DWM, issued the requested Permit to Respondent-Intervenor. (Jt. Stip. F. 5) Seven conditions in the draft and initial permit addressed concerns related to potential impacts to the local environment, application rates, types of septage to be land applied, monitoring, and reporting requirements (Pet. Exh. 1). The maximum annual septage application rate for the pine fields is 25,000 gallons per acre. The maximum annual application rate for the Bermuda grass/ small grain overseed fields is 50,000 gallons per acre. In accordance with 15A NCAC 13B .0832(8), Respondent issued the subject Permit for one year. (Jt. Exh. 1)

46. After receiving public input during the comment and hearing process, Respondent made changes to the permit by adding Conditions 8, 12, 13, 14, 15, 23, and by modifying Conditions 7 and 18, to address those concerns. (Jt. Exhs. 1, 3; Pet. Exh. 1; T. p 27). Respondent-Intervenor did not object to these conditions (T. p 223)

47. The Permit issued to Respondent-Intervenor includes 23 conditions on Respondent-Intervenor's land application of septage at the site (Jt. Exh. 3), including:

a. Permit condition no. 1 provides that the Permit shall become void if the soils fail to adequately assimilate land applied septage and the Permit shall be rescinded unless the site is maintained and operated in a manner which will protect the assigned water quality standards of both surface and ground waters.

b. Permit condition no. 5 requires continuing compliance with all state and federal regulatory requirements related to the land application of septage. Permit condition No. 6 provides that the Permit may be modified by DWM at any time to incorporate any condition, limitation, and/or monitoring requirement that DWM deems necessary to adequately protect the environment and public health.

c. Permit condition no. 7 was modified to require that septage that may contain waste resulting from any processes of industry, manufacture, trade or business shall not be land applied.

d. Permit condition no. 8 states the annual application rates for the pine trees and bermuda grass fields, and that applications are not to exceed the permitted rates and amount. Refer to the nutrient management plan for the monthly application rates.

e. Permit condition no. 9 requires the dewatered septage to be sampled and analyzed quarterly for plant nutrients.

f. Permit condition no. 18 requires the permittee to submit a renewal for its permit application, along with the septage land appliction logs for the entire time of its current permit, within 90 days before the current permit expires.

(Jt. Exh. 3)

48. Permit condition no. 11 requires Respondent-Intervenor to demonstrate to Respondent that the irrigation system will evenly cover the designated application areas and not spray septage outside the designated boundaries (Jt. Exhs. 1, 3). As of the date of the hearing, Respondent-Intervenor had not scheduled a time to make this demonstration to Respondent, and Respondent-Intervenor had not begun to land apply septage at the site. (T. pp. 172-173; p 217)

49. Permit condition no. 12 requires that septage shall only be applied when soil and weather conditions are favorable for application, and soil and weather conditions must also be considered before any septage application. Permit condition no. 13 requires Respondent-Intervenor to monitor soil conditions so that any septage applicationa will not result in ruts greater than 3" in the soil surface. (Jt. Exh. 3)

50. Permit condition no. 14 prohibits any discharge, including aerial drift, of septage outside of the permitted boundaries. Permit condition no. 15 requires the permittee to notify Respondent as soon as possible, but within 24 hours of first knowledge, of the occurrence of any discharge outside the permitted boundaries or any exceedance to the permitted application rates. (Jt. Exh. 3)

51. Permit condition no. 23 requires the property site to be inspected by a representative from Respondent Division before the initial septage application. (Jt. Exh. 3)

52. The pine trees and Bermuda grass crops grown on the land application fields will be harvested and beneficially reused upon maturity. After the crops on the land application site have been harvested, Respondent-Intervenor intends to replant the fields with pine trees or Bermuda grass or some other suitable crop, subject to approval by DWM. (T. p. 219)

53. On September 12, 2011, Respondent issued a document entitled "Response to Public Comments," which consists of Respondent's summary of the comments made during the public hearing and the written comments received during the public comment period, and Respondent's responses to all such comments (Jt. Exh. 3; Jt. Stip. F. 4)

VI. The Dewatering Process and the Statutory Definition of Septage

54. At hearing, Dr. Rubin opined that dewatering qualifies as the treatment of septage (T. p 133). Mr. Scott agreed, and explained that a dewatering facility qualifies as a detention and treatment facility subject to permitting under 15A N.C.A.C. 13B.0836. Specifically, 15A N.C.A.C. 13B.0836(e) provides in part:

> Treatment shall include, but not be limited to, aerobic or anaerobic digestion, dewatering or thickening, pressing, centrifuging, the use of organisms or enzymes, and pathogen reduction methods or vector attraction reduction methods other than lime stabilization.

(T. p. 169) Mr. Scott further explained that septage includes a slurry fraction of liquids and solids, which also includes the dewatered fraction from a dewatering facility.

55. At hearing, Dr. Bierk testified as an expert witness for Petitioners in the areas of "dewatering of septage, use of polymers in dewatering of septage, land application of septage, analysis of what is septage liquid fractions," and generally regarding rules and regulations of septage and land application of septage. (Pet. Exh. 3, Bierk resume; T. p. 80) Dr. Bierk also opined that dewatering of septage constitutes the treatment of septage under the Septage Management Rules (T. p 114)

56. The Permit provides that septage can be applied at the rate set forth in the permit, which includes both untreated septage as well as the dewatered liquid portion of septage after treatment at the dewatering facility (T. pp.. 184-185).

57. Dr. Bierk expounded that septage that is processed through a machine separating out the liquid portion from the solid portion of septage would generate a liquid that would still be classified as septage (T. pp.. 121-122).

VII. Annual Volumes of Septage to be Land Applied

58. Rule 15A NCAC 13B.0835(c)(4) requires a permit application for a septage land application site to include information as part of the nutrient management plan on the proposed annual volume per acre of each type of septage proposed for land application.

59. The Permit application specifically states that the septage to be land applied at the Property would consist of 50 percent domestic septic tank, 45 percent grease trap waste, and 5 percent portable toilet waste. (Jt. Exh. 4) Portable toilet waste is included within the definition of "domestic septage" at N.C.G.S. § 130A-290(a)(32)a.

VIII. Establishing Limiting Nutrient Requirements for Land Application

60. Rule 15A NCAC 13B.0835(c)(13) requires an application rate for a septage land application site to be established based upon the most limiting nutrient for the receiver crop.

61. Before the dewatering system was built, Respondent-Intervenor conducted a pilot study to determine the qualities of the liquid portion of the dewatered septage. The primary purpose for the pilot study was to provide information to Cape Fear Public Utility Authority ("Cape Fear PUA"), an unrelated disposal option for the dewatered portion of septage (T. pp.. 139-140). The pilot study was completed at the request of the Cape Fear PUA (T. p 234). Dr. Rubin explained that the samples used and data produced by the pilot study were representative samples of the mixed septage material that would be produced by the dewatering

facility, consistent with Dr. Rubin's experience with other projects. The results of the pilot study were consistent with the nutrient values that have been seen in other dewatering operations using the same equipment, and were included in the Permit application to present information on the quality of the liquid septage that would be land applied (T. pp.. 140-141).

62. A pilot study is not required by the Septage Management regulations to be included in a permit application, and was not considered by Respondent (T. p 173; pp. 39-40).

63. Respondent DWM's standard procedure is to use the North Carolina RYE database nutrient values, as set forth in the federal regulations at 40 CFR 503.13(c) for domestic septage, to establish the approximate loading rate for the receiver crops. This database allows environmental professionals to reference a particular soil type in a particular county to determine the acceptable level of nutrient loading rates based on the crops to be grown (T. p 157).

64. Mr. Scott explained that the limiting nutrient for both of the crops to be grown at the Property – Bermuda grass and pine trees – would be nitrogen (T. p 161). The value of 2.6 pounds of nitrogen per 1,000 gallons of septage is the limiting nutrient value used based upon the federal regulations (T. p 158).

65. The values in the federal regulations are for domestic septage that has not been dewatered. Grease septage is lower in nitrogen content than domestic septage. Mr. Scott explained that the nitrogen values for dewatered septage would be significantly reduced due to the removal of the solids (T. pp.. 160-161).

66. In this case, the revised nutrient management plan contains all of the information necessary for determination of the appropriate nutrient loading rate for application of septage to each of the receiver crops at the site. (T. pp.. 165-166)

67. As written, the subject permit allows Respondent-Intervenor to land apply non-dewatered septage, if, for example, there is a power outage at the dewatering facility. (T. pp.. 166-167)

68. Maximum land application rates for domestic septage (50,000 gallons per acre per year) and for grease septage (25,000 gallons per acre per year) are found at 15A NCAC 13B .0838(b). Paragraphs (6) and (7) of that rule require at least four samples of the liquid from a septage dewatering process in order to apply for a higher land application rate for the liquid fraction of dewatered septage. (T. pp. 173-174)

CONCLUSIONS OF LAW

1. The Office of Administrative Hearings has jurisdiction to hear this case pursuant to N.C.G.S. § 130A-24(a), (a1) and (e) and N.C.G.S. § 150B-23, and all parties are properly before the Office of Administrative Hearings.

2. All parties are correctly designated, and there is no question of mis-joiner or non-joiner of the parties.

3. Petitioners have standing to bring this contested case related to environmental concerns they have raised regarding the issuance of the Permit.

4. N.C. Gen. Stat. § 130A-291.1(d) provides that a permit "shall be issued only if the site satisfies all of the requirements of the rules adopted by the Commission." (Commission for Public Health)

5. N.C. Gen. Stat. 130A-291.1(d) states that "septage" shall be treated and disposed of only at an approved wastewater system or at a site that is permitted by DENR for the land application of septage.

6. N.C. Gen. Stat. § 130A-291.1(e5) provides for the taking of soil samples by Respondent on proposed and permitted septage land application sites. Section (g) of the statute provides that production of a crop in accordance with an approved nutrient management plan is a "bona fide farm purpose." Section (h) of the statute requires Respondent to inspect each septage land application site at least twice a year, and requires inspection of the records associated with the site at least annually.

7. N.C. Gen. Stat. § 130A-290(a)(32) defines the term "septage." "Domestic septage" and "Grease septage", as defined below, are permitted for land application under SLAS-24-08.

> (32) "Septage" means solid waste that is a fluid mixture of untreated and partially treated sewage solids, liquids, and sludge of human or domestic origin which is removed from a wastewater system. The term septage includes the following:
>
> a. Domestic septage, which is either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works receiving only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works receiving either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.
>
> b. Domestic treatment plant septage, which is solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works where the designed disposal is subsurface. Domestic treatment plant septage includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes and a material derived from domestic treatment plant septage. . . .

c. Grease septage, which is material pumped from grease interceptors, separators, traps, or other appurtenances used for the purpose of removing cooking oils, fats, grease, and food debris from the waste flow generated from food handling, preparation, and cleanup.

d. Industrial or commercial septage, which is material pumped from septic tanks or other devices used in the collection, pretreatment, or treatment of any water-carried waste resulting from any process of industry, manufacture, trade, or business where the design disposal of the wastewater is subsurface. Domestic septage mixed with any industrial or commercial septage is considered industrial or commercial septage.

e. Industrial or commercial treatment plant septage, which is solid, semisolid, or liquid residue generated during the treatment of sewage that contains any waste resulting from any process of industry, manufacture, trade, or business in a treatment works where the designed disposal is subsurface. . . .

8. "Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Rusher v. Tomlinson*, 119 N.C. App. 458, 465, 459 S.E.2d 285, 289 (1995), aff'd, 343 N.C. 119, 468 S.E.2d 57 (1996); *Comm'r of Insurance v. Fire Insurance Rating Bureau*, 292 N.C. 70, 80, 231 S.E.2d 882, 888 (1977). "It is more than a scintilla or a permissible inference." *Lackey v. Dept. of Human Resources*, 306 N.C. 231, 238, 293 S.E.2d 171, 177 (1982). In weighing evidence which detracts from the agency decision, "[i]f, after all of the record has been reviewed, substantial competent evidence is found which would support the agency ruling, the ruling must stand." *Little v. Bd. of Dental Examiners*, 64 N.C. App. 67, 69, 306 S.E.2d 534, 536 (1983)(citations omitted).

9. An "agency's construction of its own regulations is entitled to substantial deference . . . [and] must be given 'controlling weight unless it is plainly erroneous or inconsistent with the regulation." *Morrell v. Flaherty*, 338 N.C. 230, 237-38, 449 S.E.2d 175, 179-80 (1994). A Court should also "take into account the specialized expertise of the staff of an administrative agency." *High Rock Lake Ass'n Inc. v. N.C. Env't Mgmt. Comm'n*, 51 N.C. App. 275, 279, 276 S.E.2d 472, 475 (1981).

10. The primary rule at issue in this case is 15A N.C.A.C. § 13B .0835. That rule establishes the requirements for septage land application site permits, including soil characteristics of soil on septage applications sites; setbacks from water, residences, roads, and wetlands; and specific site size and slope restrictions. 15A N.C.A.C. § 13B .0835(b) provides that:

> Septage land application sites shall not be located in the watershed of a Class WS-I stream. New septage land application sites shall not be located in the water quality critical area of Class WS-II, WS-III, or WS-IV streams or reservoirs.

11. In this case, the preponderance of evidence showed that the liquid portion of septage separated from the solid portion of septage during the dewatering treatment process is septage under N.C.G.S. 130A-290(a)(32), and may be permitted to be land applied under the Septage Management Rules.

12. The preponderance of evidence established that the permit application in this case includes a nutrient management plan which is sufficient to meet the requirements of 15A N.C.A.C. 13B .0835(c) (4), (12) and (13). The application states that the septage to be land applied at the Property would consist of 50 percent domestic septic tank, 45 percent grease trap waste, and 5 percent portable toilet waste. Nitrogen is the limiting nutrient for both the fields planted in Bermuda Grass and the fields growing pine trees.

13. Respondent properly determined that the proposed annual volume of each type of septage to be land applied was easily discerned from the application percentages of domestic and grease septage by multiplying these percentages by 25,000 gallons for the pine tree fields and by 50,000 gallons for the Bermuda grass fields.

14. The pilot study of dewatered septage was neither required by the rules nor considered by Respondent during the application process. Critique of the study methods and results thus has no relevance in determining whether Respondent issued the permit in accordance with applicable law.

15. Petitioners failed to demonstrate by a preponderance of the evidence that Respondent's issuance of SLAS Permit 24-08 did not conform to applicable law.

16. A preponderance of the evidence showed that Respondent did not substantially prejudice Petitioners' rights, did not exceed its authority or jurisdiction, did not act erroneously, did not act arbitrarily or capriciously, but used proper procedure, and acted as required by law or rule in issuing the septage land application site Permit SLAS Permit 24-08 to Respondent-Intervenor.

DECISION

Based upon the foregoing Findings of Fact and Conclusions of Law, the undersigned determines that Respondent's decision to issue a permit to operate a septage land application site in Columbus County, North Carolina should be **UPHHELD**.

ORDER AND NOTICE

The North Carolina Department of Environment and Natural Resources will make the Final Decision in this case. The Department is required to give each party an opportunity to file exceptions to this recommended decision and to present written arguments to those in the agency who will make the final decision. N.C.G.S. § 150B-36(a). The agency is required by N.C.G.S. § 15013-36(b) to serve a copy of the final decision on all parties and to furnish a copy to the parties' attorneys of record and to the Office of Administrative Hearings.

It is hereby ordered that the agency serve a copy of its final agency decision on the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714, in accordance with N.C.G.S. § 150B-36(b)(3).

This the 8th day of August, 2012.

_____
Melissa Owens Lassiter
Administrative Law Judge