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OAH Decision, FYI
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STATE OF NORTH CAROLINA COUNTY OF COLUMBUS	IN THE OFFICE OF ADMINISTRATIVE HEARINGS 03 EHR 0058
FRIENDS OF THE GREEN SWAMP, et al., Petitioners, v. NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, and the DIVISION OF WATER QUALITY, Respondent, and RIEGEL RIDGE, LLC, and WASTE MANAGEMENT OF CAROLINAS, INC. Intervenor-Respondents.	DECISION

This contested case was heard by the Honorable James L. Conner, II, Administrative Law Judge, on March 1-4, 2004, in Carolina Beach, North Carolina. The parties filed proposed Decisions on May 6, 2004, and Responses to the proposals on May 13 and 14, 2004.

APPEARANCES

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WITNESSES

Witnesses called by Petitioners

1. Robert Jeffrey Lane - Chairman of Friends of the Green Swamp

2. Henry Grady Simmons - Resident near the proposed landfill site

3. Dr. Stanley R. Riggs - Distinguished Professor of Geology, East Carolina University.

4. William Wayne Dreitzler - former principal in Marlowe, Dreitzler Associates, Inc., and former member of Riegel Ridge, LLC.

5. Danny Smith - Environmental Specialist, Division of Water Quality

Witnesses called by Respondent

7. Danny Smith - see above

8. Paul E. Rawls - Water Quality Regional Supervisor, Division of Water Quality Fayetteville Regional Office

Witnesses called by Intervenor-Respondent

6. Dr. Rudolph Bonaparte - GeoSyntec Consultants, expert in permitting, design, construction, monitoring, and performance evaluation of municipal solid waste landfills.

9. David Brian Wells - Senior Geologist, S&ME, formerly with Titan Atlantic Group

10. Kevin Charles Martin - President, Soil and Environmental Consultants

11. William Wayne Dreitzler - see above

12. Ralph Heath - expert in hydrogeology

EXHIBITS RECEIVED INTO EVIDENCE

Stipulated Exhibits Submitted by and for All Parties

By stipulation of the parties, the following exhibits were received into evidence. (See pages 653 through 655 of the transcript of the hearing in this matter, dated March 4, 2004; hereinafter, references to the transcript will be in the form of "T pp. ___".) The following documents are given labels or numbers that correspond to the tabs included in the set of 4 notebooks that were utilized during the hearing. By stipulation of counsel on the record, the index to these 4 notebooks was corrected at the end of the hearing to show the documents that had been introduced during the course of the hearing, along with their labels, and it was this corrected index that provided the basis for the stipulated admission into evidence of the documents listed in the following section. (T pp. 653-54)

A	12/16/02	401 Certification
B	10/15/01	Combined 404/401 Application, including: Transmittal Cover Letter & Maps
C	12/16/02	Hearing Officer Report
E-1	01/13/00	Site Hydrogeologic Report (Titan Atlantic Group) (Hydrogeologic Report)
E-2	04/06/00	Addendum to the Hydrogeologic Report
E-3	05/09/01	Addendum to the Hydrogeologic Report (the 2001 Hydrogeologic Addendum)
F-2	06/04/01	Letter to J. Dorney from W. Dreitzler re: Wetland Impacts Corps of Engineers Permit Application
F-3	10/18/01	Letter to K. Martin from R. Ferrell re: NCWRP
F-4	06/13/02	June 13, 2002, Landfill Construction Borrow Area Wetlands Monitoring Plan
F-5	10/25/02	Revised Wetland Monitoring Plan (Soil & Environmental Consultants)
F-6	07/19/02	Wetland Monitoring Plan (Soil & Environmental Consultants)
G-1	02/02/02	Report - Site Use by Gulls
G-2	07/01/02	Addendum to February 2, 2002 Report - Site Use by Gulls
G-3	03/20/02	Report by Erik Alford of Ecological Solutions to Riegel Ridge re: Site Use by Gulls

G-4	05/02/02	Letter to Division of Solid Waste from Division of Parks and Recreation submitting comments on site suitability.
H-1	09/--/97	Aquifer Sensitivity Map of Brunswick County, report prepared by Ralph Heath
H-4	04/26/01	Top Elevation of Layer "C" Aquitard diagram
H-6	12/07/01	HELP Model Results regarding leachate rates; prepared by Titan Atlantic Group
H-7	02/05/02	Contaminant Transport Model Report; prepared by Titan Atlantic Group
H-8	05/13/02	Letter from Ralph Heath to Kevin Martin re: comments made at the public hearing attributed to Mr. Heath's report.
H-9	10/22/02	Landfill Capping Detail
H-10	Undated	Leachate Tank Photographs
I-1	06/14/02	Stormwater Management Plan
I-2	10/--/02	Stormwater Management Plan, Hydraulic Computations; prepared by Marlowe, Dreitzler & Associates
I-3	10/30/02	Borrow Site and Drainage Ditch Bisection Evaluation Plan
J-1	09/29/03	Letter from Columbus County to FEMA re: variance not necessary
K-1	05/--/01	Revised Submittal Site Study (Vols. I & II); submitted to DWQ by letter referenced at K-3 below
K-2	11/29/01	Green Swamp Location Plan and Green Swamp National Natural Landmark Boundary Map
K-3	05/23/02	Letter forwarding May 2001 Site Study to DWQ
K-4	10/17/02	Letter to DWQ from COE re: alternative analysis
L-2	11/02/01	Letter to J. Dorney from S. Coghill re: Request for Final Comment
L-5	11/13/01	Letter from Marlowe, Dreitzler & Associates re: IP(404) and Associated 401 Water Quality Certification Request
L-6	12/07/01	Letter to COE from S. Riggs submitting comments on 404/401
L-8	12/17/01	Letter from Dreitzler to the COE submitting requested additional information

L-10	12/21/01	Letter to COE from D. Carter re: permit to construct municipal solid waste landfill in Green Swamp
L-12	01/09/02	Letter from DWQ requesting additional information with December 13, 2001 comments from North Carolina Wildlife Resources Commission (WRC) attached
L-13	01/31/02	Two (2) Letters to the WRC from W. Dreitzler addressing WRC's comments
L-18	05/20/02	Letter to P. Rawls from W. Dreitzler responding to issues raised at the public hearing
L-21	06/07/02	Letter to S. Coghill from P. Rawls re 401 Water Quality Certification public hearing
L-22	06/10/02	Additional Information Request from P. Rawls
L-24	07/16/02	Letter to P. Rawls from S. Coghill re: public comments
L-25	07/22/02	Letter to P. Rawls responding to DWQ's Additional Information Request
L-26	09/20/02	Request for Additional Information from J. Dorney
L-27	10/07/02	Letter to COE from DWQ re: Practical Alternatives Determination
L-28	10/31/02	Letter responding to Additional Information request
L-29	01/07/03	Letter to D. Smith from G. Seay re: comments of Swamp Watch Action Team

Petitioners' Exhibits

P-1	11/29/01	Green Swamp Location Plan and Green Swamp National Natural Landmark Boundary map (Marlowe, Dreitzler & Associates)
P-2	04/18/02	Petitioners' Comments on 401 Certification of Riegel Ridge MSW Landfill
P-3	Undated	Dr. Stanley R. Riggs Resume
P-4	12/07/01	Correspondence to A. Pennock from S. Riggs re: Individual Permit 404 and Associated 401 Water Quality Certification Request
P-5	09/--/00	The Waccamaw Drainage System: Geology and Dynamics of a Coastal Wetland, Southeastern North Carolina report (Riggs, Ames, Brant, & Sager – ECU Geology Dept.)

P-6	09/11/03	Correspondence to J. Coffey from J. Dowland and G. Peverall re: Proposed Riegel Ridge Municipal Solid Waste Landfill, Columbus County
P-7	10/10/03	Correspondence to J. Coffey from W. Dreitzler re: Proposed Riegel Ridge Municipal Solid waste Landfill, Columbus County
P-8	12/07/01	Correspondence to W. Dreitzler from J. Coffey re: Site Study Review, Proposed Riegel Ridge Municipal Solid Waste Landfill, Columbus County
P-9	09/05/03	Correspondence to W. Dreitzler from J. Coffey re: Proposed Riegel Ridge Municipal Solid Waste Landfill, Columbus County
P-10	11/17/03	Appeal and Protest to B. Farmer, D. Bellomo, and J. Dorman from J. Runkle

Respondent's Exhibits Stipulated exhibits only.

Respondent-Intervenors' Exhibits

RI-1	02/--/04	Rudolph Bonaparte Resume
RI-2	03/--/04	Water Quality Protection And Reliability Of Engineering Systems Proposed Riegel Ridge Landfill Power Point Presentation (R. Bonaparte - GeoSyntec Consultants)
RI-3	Undated	General Liner System 3-D Model (Bonaparte)
RI-4	Undated	Enhanced Sump Liner System 3-D Model (Bonaparte)
RI-5	Undated	Witness Testimony Outline of David Wells
RI-6	02/28/04	Kevin C. Martin Resume
RI-7	03/08/99	Aerial Photographs
RI-8	Undated	Pre-Prepared Testimony by W. Dreitzler
RI-9	Undated	Surface Water Flow in the Vicinity of Riegel Ridge map (Titan)
RI-10	Undated	Pre-Prepared Testimony by William W. Dreitzler Relating to Floodplains
RI-11	01/08/02	Correspondence to J. Coffey from A. McKenzie re: Franchise Assignment
RI-12	Undated	Ralph C. Heath Resume and Bibliography

FINDINGS OF FACT

Nature of the Appeal

1. Petitioners filed a Petition for Contested Case Hearing with the Office of Administrative Hearings ("OAH") on or before January 15, 2003 (the "Petition").

2. The Petition challenges Respondent's issuance of Water Quality Certification No. 3406, dated December 16, 2002, (the "401 Certification") to Riegel Ridge, issued in connection with the request to fill 0.69 acres of wetlands as a part of the proposed construction by Riegel Ridge of a municipal solid waste landfill in Columbus County (the "Landfill"). (The 401 Certification was admitted into evidence as Stipulated Exhibit A, and hereafter the stipulated exhibits will be referred to using the format "Exh. ___".)

Identity of the Parties

3. Petitioners Friends of the Green Swamp ("Friends") and Blue Ridge Environmental Defense League ("BREDL") are organizations whose members live near to or in the general areas of the proposed landfill site. (T p. 39) Friends was established as an advocacy group to protect the Green Swamp and is an organized chapter of BREDL. (T pp. 36-37).

4. Respondent North Carolina Department of Environment and Natural Resources ("DENR") is a State agency established pursuant to G.S. 143B-279.1 *et seq.* and is delegated the responsibility for review and evaluations of applications for 401 Certifications pursuant to § 401 of the federal Clean Water Act, 33 U.S.C. § 1341. Respondent DENR, acting through the Division of Water Quality ("DWQ"), issued the 401 Certification to Riegel Ridge.

5. Respondent-Intervenor Riegel Ridge LLC ("Riegel Ridge") is a North Carolina Limited Liability Company to which the 401 Certification was issued. By motion, Riegel Ridge was allowed to intervene as a respondent-intervenor.

6. Waste Management of the Carolinas, Inc. ("WMC") is a North Carolina Corporation. In October, 2003, WMC purchased all of the outstanding membership shares of Riegel Ridge, and Riegel Ridge thereby became a wholly owned subsidiary of WMC. (T pp. 11, 12; Pet. Exh. 7). On the first day of the hearing, in response to a motion by Petitioners, WMC was added as a Respondent-Intervenor as a necessary party in the matter. (T p. 18)

Summary Of Hearing Testimony

Mr. Lane

7. Robert Jeffrey Lane testified that he currently resides at 208 McCray Lane at Lake Waccamaw. Mr. Lane has been the chairman of Friends since it was formed in 2000. Friends was formed as a Green Swamp advocacy group, has approximately 110 members, and holds regular monthly meetings. Friends is an organized chapter of BREDL. (T pp. 36-37) Mr. Lane testified that members of Friends and BREDL live in the area near the proposed landfill. (T pp. 37, 39) Mr. Lane testified that members of Friends participated in the public hearing regarding the 401 Certification and submitted written comments to DWQ. (T p. 40; Pet. Ex. 2) The main

concerns of Petitioners are the historical ditching in the area, impacts to wetlands and the water table as a result of proposed borrow pits, the completeness of some of the studies done regarding the site, endangered species, monitoring of wetlands and the water table, and avian mitigation. (T pp. 42-44)

Mr. Simmons

8. Henry Grady Simmons testified that he lives at 6577 Green Fork Road, just inside the Brunswick County line, and that he owns property about a quarter mile from the proposed landfill site. He has lived at that location for 40 years, and in the area his entire life. Mr. Simmons has farmed, hunted, and fished on the proposed landfill site. (T pp. 52-55) Mr. Simmons testified that he drove down Tram Road after Hurricane Floyd, in 1999, and the water was an average of 12-14 inches deep, and that after a major storm event the site is full of water and mud. (T p. 57)

Dr. Riggs

9. Dr. Stanley R. Riggs testified that he is a Distinguished Professor of Geology at East Carolina University, and briefly testified as to his credentials, education, and published articles. (T pp. 59-62) An abbreviated resume of Dr. Riggs was received into evidence. (T p. 60; Pet Exh. 3). Dr. Riggs later indicated that he was not a hydrologist. (T p.64, 116).

10. Dr. Riggs discussed his study, "The Waccamaw Drainage System: Geology and Dynamics of Coastal Wetland, Southeastern North Carolina Report," published in September 2000. (T pp. 62-69; Pet. Ex. 5). Dr. Riggs testified that the initial purpose of the study reflected in that report was to study sedimentation in the Waccamaw River; however, the study ultimately evolved into a study of the entire Waccamaw River drainage system. The study found that the Waccamaw drainage system is a very complex system with many parts, and that it is a very important resource for North Carolina. (T pp. 63, 67) Dr. Riggs concluded that part of the problem was not sedimentation, but water availability, because the system had become flashier due to its being highly modified and ditched since the 1930's (T p. 66). The report found that information on the system was minimal, and recommended undertaking a detailed water management study of the surface and groundwater. (T pp. 63, 67)

11. Dr. Riggs acknowledged that his team did no work at the proposed landfill site, although they did work along the ridge on the Nature Conservancy property which he testified was very analogous to the area of the proposed landfill and the Honey Swamp area adjacent to the landfill area. (T p. 70) He testified that the ridge was an old lake shore approximately a mile wide that runs down Highway 211, that the direction water takes when it hits the ridge depends on how the wind is blowing and how much water there is, and that this highly complex system was very dependant on storm events. (T p. 71-76). He also testified that he would expect this same phenomena in the Green Swamp (T p. 76-79). With respect to the proposed landfill site, Dr. Riggs testified that the direction of water would depend on where ditches were located, and the stormwater management plan. (T p.79)

12. Dr. Riggs described, in general, the cretaceous Pee Dee aquifer. (T pp. 82-86) Dr. Riggs further testified that there were additional studies needed to study the relationship between the Pee Dee aquifer and the Waccamaw system, surface water, and rain and storm events (T pp.

89-92). He testified that if you dig through the confining layer, you would lose or gain water depending on what the system was like. (T pp. 106-07, 115-16) Dr. Riggs identified written comments he had submitted to the United States Army Corps of Engineers (the "Corps") in December 2001, regarding the 404 Permit and 401 Certification, and stated it was a fair summary of his position. (T pp. 92-93; Pet. Exh. 4)

13. Dr. Riggs made it quite clear that he felt it would be a mistake to site the proposed landfill in the middle of the Green Swamp. Such a large project would be likely to impact the integrity of this important natural resource in significant ways, most of which cannot be adequately predicted without further study.

14. Dr. Riggs further testified that the effects he described would occur from all types of development, not just a landfill. (T pp. 95-98). He indicated that he was not familiar with Subtitle D rules that govern the design, construction and operation of a modern solid waste landfill, and he has not done any studies on landfills, including the proposed landfill site. (T pp. 101-104) He testified he had not reviewed any of the various monitoring plans for the facility, including how the wetlands monitoring plan dealt with penetration of the confining layer in the borrow pits. (T pp. 104-10) He acknowledged that he had not provided any comments on the proposed project since December, 2001, although it was determined that his December, 2001 comments had been submitted by Petitioners to DWQ at the April 18, 2002, public hearing. (T pp. 109, 112) Dr. Riggs also indicated that he had not examined the 401 Certifications or its conditions and addendum, nor had he examined any further written documentation regarding the proposed Landfill after he had prepared those written comments in December, 2001. (T pp. 104-09) Dr. Riggs stated that he would support monitoring of the effects of the project on the system, and that it would be important for that monitoring to be enforceable. (T pp. 109)

Mr. Dreitzler

15. William Wayne Dreitzler testified that he is a former principal with the consulting firm Marlowe, Dreitzler and Associates, which prepared the application for the proposed landfill, including the site study submitted to the DENR Division of Waste Management ("DWM"). Mr. Dreitzler also testified that he was a former shareholder in Riegel Ridge, and that WMC is the current owner of the shares of Riegel Ridge. (T p. 118-120) Mr. Dreitzler testified that he notified DWQ that WMC would be acquiring control of Riegel Ridge during a meeting in the fall of 2001 with several representatives of DWQ. (T pp. 122-24). Riegel Ridge was formed in late 1998 or early 1999, and submitted a 404 permit application, which incorporated the 401 Application, to the Corps on October 15, 2001. (T pp. 124-25) Mr. Dreitzler also testified that Riegel Ridge had a preliminary contractual relationship with WMC as of February 4, 1999. (T p. 681) Mr. Dreitzler identified a letter dated January 8, 2002, from Columbus County which acknowledged the County's acceptance of WMC as the entity that may operate and construct the landfill. (T pp. 731-32; Exh. RI-11)

16. Mr. Dreitzler briefly summarized his training, work experience and resume, and identified his prepared testimony, and adopted it. (T pp. 587-90, 605-07; Exh RI-8) He testified about the documents he submitted to DWQ for their review, identified in bold in Attachment B to his prepared testimony. (T pp. 588-89 Exh. RI-8) He testified that the various monitoring plans will be reviewed as part of the solid waste permitting process. (T pp. 596-97) Mr. Dreitzler briefly summarized his prepared testimony and the documents related to the seagull management

plan, and concerns raised by the Division of Parks and Recreation as to seagulls and the potential view from Lake Waccamaw. (T pp. 600; Exhs. G-1, 2, 3, and 4)

17. Mr. Dreitzler testified that the final design of the proposed landfill had not yet been completed and that there is a long regulatory process ahead before final designs would be finished, including obtaining a 404 permit from the Corps, and a site suitability determination from DWM. Once the designs are final, they are submitted to DWM for review before a draft permit to construct is prepared and a public comment and review period commences. In addition, several other state and local approvals will need to be obtained. (T pp. 148-151; 590-596) Mr. Dreitzler further testified that, throughout this process, modifications to the plans may be made, particularly to address agency concerns and better protect the environment, but that such changes would not be so substantive as to affect any DWQ permits. (T pp. 159-162, 598-99) A site suitability letter has not been issued yet because DWM required Riegel Ridge to first obtain a 404 Permit, which required it in turn to obtain the 401 Certification. (T p. 173)

18. Mr. Dreitzler testified that the project did not require a floodplain variance from Columbus County because currently published FEMA maps and the new preliminary maps both indicated the landfill boundary was outside the 100-year floodplain. Mr. Dreitzler identified a map showing a portion of the working FEMA flood insurance rate map, and identified on the map where the landfill unit boundary would be, and how that boundary would be outside the 100-year floodplain as shown on that map. (T pp. 629-634). He explained how Riegel Ridge hired Alpha and Omega to perform a flood study evaluation to confirm existing FEMA floodplain maps, and how that study produced a map showing not only regulated floodplain, but any areas where there may be standing water after a 100-year storm event. (T p. 637-639). Mr. Dreitzler testified that Riegel Ridge, acting out of abundance of caution, applied for a variance from Columbus County in the interim between the Alpha and Omega determination that the existing FEMA maps were not accurate, and the release of the new, working FEMA maps, in order to ensure the project could move forward should the new maps show the site within the floodplain. (T pp. 639-42; 659-65). Subsequent to the issuance of the new working maps, Columbus County determined Riegel Ridge did not need a variance, because the maps showed the site for the proposed landfill to be outside the 100-year floodplain. (T pp. 168-171; 629-631; Exh J-1) Mr. Dreitzler provided pre-prepared testimony on the floodplain issue (Exh. RI-10)

19. Mr. Dreitzler testified that he had prepared as series of stormwater management plans in response to requests for more information and detail from DWQ. (T pp. 607-612; Exhs. I-1&2) Mr. Dreitzler described in detail the elements of the most recent version of the stormwater management plan. (T pp. 613-619) He also described, using the surface water map from the hydrogeologic report, the direction of stormwater flow through and off the site. (T pp. 622-625). He stated he did not believe it was possible for any stormwater or surface water flow to have an impact on Lake Waccamaw. (T p. 626) He also testified that the standards used for designing the stormwater management plan were those required by the applicable DWQ and DWM rules, including the provisions of those rules regarding potential storm events. (T pp. 683-84)

20. Mr. Dreitzler explained that the potentiometric maps found in the hydrogeological report will be used to help design the landfill to ensure sufficient separation from the landfill liner to the seasonal high groundwater level. (T pp. 666-670) Mr. Dreitzler briefly explained the process they used in characterizing the wetlands on the site, the preparation of the wetlands monitoring plan, and the change in the borrow pit excavation process to reduce impacts to

wetlands. (T pp. 671-677) Mr. Dreitzler testified that the depth of the borrow pits on the site was designed to vary in order to prevent penetrating layer C, the confining layer of the Pee Dee aquifer. (T pp. 162-164)

21. Mr. Dreitzler testified that Riegel Ridge and WMC will comply with all the conditions set forth in the 401 Certification, and that he was confident they could satisfy all the concerns of DWQ in those final plan submissions pursuant to the terms and conditions in the 401 Certification. (T pp. 678-80).

Mr. Smith

22. Danny Smith, Environmental Specialist, Division of Water Quality, described in general his work responsibilities, education, and training background. (T pp. 181-82) With respect to the 401 Certification, Mr. Smith testified that he reviewed all of the information submitted as part of the application. (T p. 184)

23. Mr. Smith testified that he made a site visit to the location of the proposed landfill around March 22, 2002. (T p. 371). He became aware of Riegel Ridge's 401 Application when he received the public notice from the Corps. (T pp. 371-72) Mr. Smith testified that he received the letters admitted as stipulated Exhs. B, B-1, B-2, L-5, L-12, L-13, L-18, K-3, L-22, L-25, L-26, L-28, as well as the documents listed as enclosures or attachments to those letters, and that all of those documents were kept in the course of regularly conducted business, and are available to the public when they are received. (T pp. 373-383) He also testified that those documents constituted a part of the record that DWQ relied on in deciding to issue the 401 Certification. (T pp. 392-408)

24. Mr. Smith testified that he served as the clerk to hearing officer Paul Rawls at the public hearing held with respect to the 401 Certification, and that he worked with Mr. Rawls in preparing the hearing officer's report from that hearing. (T pp. 384-86; Exh. C) He further testified that the public hearing was well attended, that DWQ received a lot of information and responses, including written responses, and that the information they received was well thought through, well put together, valuable to Mr. Rawls, to him and DWQ, and that it reflected familiarity with what the project was proposing. (T pp. 387-88; 392) Mr. Smith explained that he helped draft the 401 Certification for the Director's consideration, and that he felt the 401 Certification adequately addressed the concerns raised at the public hearing. (T p. 389)

25. Mr. Smith explained that it was his belief and understanding that DWQ has authority to impose conditions, such as the ones referred to in the Hearing Officer's Report, pursuant to 15A NCAC .0500 rules, and that it is typical to have such conditions in 401 certifications. (T pp. 385-87) He testified that DWQ has several mechanisms to respond to any changes or alterations at the Riegel Ridge site, including a "reopener" clause in the 401 Certification. (T p. 390-91)

26. Mr. Smith recalled in his testimony the meeting in the fall of 2001 at which Mr. Dreitzler had earlier testified that he notified DWQ about the pending transfer of ownership of Riegel Ridge to WMC, but Mr. Smith indicated that he did not recall whether he was specifically told about the sale or not at that meeting. However, he testified that it would not have made a difference in his or DWQ's review of the 401 Certification whether WMC had been involved in the project at that time or not. (T pp. 192-93). He indicated that, although he does not typically

investigate the corporate structure of an applicant for a 401 Certification, he did recall that he checked the Secretary of State's office at the behest of the hearing officer, to ensure Riegel Ridge was a genuine entity and to establish its ownership. Mr. Smith testified that, as of the date of his testimony, DWQ had not been notified in writing of that transfer of ownership of the shares of Riegel Ridge to WMC. (T pp. 190-91)

27. Mr. Smith testified that, in reviewing the potential impacts from the proposed project for purposes of the decision to issue the 401 Certification, DWQ reviewed both the actual wetlands impacts at issue, as well as any coincidental impacts associated with the wetlands affected and the proposed Landfill project. (T pp. 195-96). Mr. Smith testified that DWQ issued the 401 Certification pursuant 15A NCAC 2H .0506(b), and that, in so doing, DWQ considered all the elements of that rule and found them to be satisfied. Of those elements, Mr. Smith testified that DWQ did not separately consider alternatives site, because the Corps was undertaking that review. (T pp. 196-98; 215-16; Exh. K-4)

28. Mr. Smith indicated that, in issuing the 401 Certification, it was DWQ's basic finding that, if the conditions in the 401 Certification are complied with, surface water standards would not be violated. (T p. 196-97) Mr. Smith testified that DWQ had received and considered, prio to issuance of the 401 Certification, surface water, groundwater, wetlands and avian monitorin plans, and that those plans served as part of DWQ's basis for determining it had sufficier information to issue the 401 Certification at the time. (T pp. 217-18; 392). Several versions c some monitoring plans, including the wetland monitoring plans (Exhs. F-4, F-5, and F-6), we submitted as part of the iterative process that is typical of complex 401 applications. (T pp. 39 399)

Dr. Bonaparte

29. Dr. Rudolph Bonaparte, with GeoSyntec Consultants, and a paid expert Respondent-Intervenors, testified in general as to his credentials, his firm's work on the proj and identified and briefly discussed his resume. (T pp. 255-262; Exh. RI-1). The court quali him as an expert on the permitting, design, construction, monitoring, and performance evalua of municipal solid waste landfills. (T p. 265). Dr. Bonaparte testified he had reviewed var design and hydrogeologic information related to the project and felt he was familiar with engineering aspects of the project. (T p. 266). Dr. Bonaparte presented his testimony in the of a Power Point presentation, a hard copy of which was admitted into evidence. (Exh. Dr. Bonaparte described the history and development of landfill technology, the passa RCRA Subtitle D regulations, and what those regulations require. He focused on lea where it comes from, and how Subtitle D regulations and the engineering of modern lar protect groundwater from leachate. (T pp. 266-276).

30. Dr. Bonaparte described in detail a modern landfill's liner system and le collection and removal system, such as would be required to be installed in the Riegel landfill. (T pp. 276-279). Dr. Bonaparte used a drawing of the leachate collection planned for the Riegel Ridge landfill to explain how leachate would be collected, stor removed, and what the liner systems would look like. He also produced and described i models of the various layers of the liner system and enhanced liner system materials tha be used. (T pp. 280-87; 352-53; Exh. RI-3, 4) In providing this testimony, Dr. Bonaparte and left with the Court two miniature models of the cover and liner systems for a

Subtitle D landfill. Dr. Bonaparte testified that these types of liner systems exceed both the DENR and EPA Subtitle D requirements. (T p. 288)

31. Dr. Bonaparte discussed an EPA-sponsored study in which he was involved which found that leachate collection systems underlain by single composite liners could remove more than 99.9% of leachate, and that none of the composite liners in the landfills studied had leaked. (T p. 289; 347-49) Dr. Bonaparte described in detail the proposed cover system which he stated also meets or exceeds DENR and EPA requirements. (T p. 292) He also described stormwater management systems incorporated in landfill designs, and their importance in managing run-on and run-off during the three phases of landfill activities. (T pp. 292-296) Dr. Bonaparte discussed the requirements in the Section .1600 rules regarding quality control and construction quality assurance, and described some of the ways those requirements are met during construction of the liner and leachate collection systems. (T pp. 297-99; 340-44)

32. Dr. Bonaparte testified that, in his experience, the conditions in the 401 Certification regarding various monitoring plans were typical of the kinds of conditions in other 401 certifications for landfills. He further testified that, if a landfill is designed, constructed, and operated according to Subtitle D regulations, there is an assurance of the protection of the surface water and ground water quality. (T pp. 302-05) He also testified that the drawings found in the stormwater management plan submitted to DWQ (Exh. I-2, 3), and the groundwater and surface water monitoring plan (Exh. E-3) are typical of the types of plans submitted for Subtitle D landfills at this stage of the process, and that those plans as submitted contained sufficient information to allow an evaluation of the landfill and its ability to protect water quality. (T pp. 357-65)

33. Dr. Bonaparte explained the purpose for structural fill underneath the landfill, how settlement occurs as a result of the landfill, and how the structural fill would ensure there is required separation between the liner system and the groundwater. (T pp. 315-18) He also explained how the liner system and leachate collection systems are designed to account for such settlement. (T pp. 318-323; 349-52) Dr. Bonaparte described in detail the designed sump pump systems, how they are installed and replaced, where they are located on the proposed landfill, and how they are typically designed to handle storm events. (T pp. 321-327)

Mr. Rawls

34. Paul E. Rawls is the Water Quality Regional Supervisor, Division of Water Quality, Fayetteville Regional Office. He served as the hearing officer at the public hearing held in this matter, and helped prepare the Hearing Officer's Report. (T pp. 412-13; Exh. C). The hearing was held at the Whiteville High School Auditorium and lasted about 3 ½ hours. (T p. 415) Mr. Rawls testified that his report adequately reflected the concerns raised by the public at the hearing. (T p. 416) Mr. Rawls testified that his report contained conditions to address the concerns of the public and issues they raised at the hearing. (T p. 417)

35. Mr. Rawls briefly explained his work experience, educational background, training, and experience with 401 certifications and public hearings. (T pp. 409-12) In response to questions about the ability of DWQ to address potential violations of 401 certifications, Mr. Rawls testified that DWQ could address such violations in several ways, including an injunction, civil penalties, and revocation of the 401 Certification. (T p. 424) As an example, Mr. Rawls

explained that the 401 Certification listed specific conditions that must be addressed in a final surface water monitoring plan, which must be approved by DWQ before any impacts to wetlands or waters. If Riegel Ridge were to undertake those activities without this approval, they would be subject to enforcement action by DWQ. (T pp. 427-28).

Mr. Wells

36. David Brian Wells is a Senior Geologist with the consulting firm S&ME, Inc. He briefly described his employment history, his and Titan Atlantic's involvement in preparation of the Site Hydrogeological Reports for the project, and identified his prepared testimony. (T pp. 431-32, 485-87; Exh. RI-5) Mr. Wells identified and briefly described the contents of the three site hydrogeological reports submitted to DWQ on behalf of Riegel Ridge, and the drawings attached. (T pp. 433-440; Exhs. E-1,2, & 3) Mr. Wells described the various soil layers found under the site, and how Titan Atlantic studied the groundwater at the site. (T pp. 441-44, 467-75). He identified and described the information found on the groundwater contour map of the surficial aquifer, found in Addendum 2 of the hydrogeological report, including how that map reflects their study and conclusions that the general groundwater flow across the site was south-southeast toward Honey Island Swamp. (T pp. 448-4; Exh. E-3)

37. Mr. Wells described the surface and groundwater monitoring plans that were prepared and submitted to DWQ as part of the hydrogeological report, and how they were designed to ensure that groundwater and surface water would be protected. (T pp. 453-464) Mr. Wells further testified that it was his opinion that the surface and groundwater monitoring plans would adequately assure protection of surface and groundwater. (T p. 455; 458) He stated that there may be changes in well locations, or additions of wells, during the final solid waste permitting phase, but that such changes would not affect the operation of the monitoring plans. (T p.457-58)

38. Mr. Wells testified that the April 6, 2000 addendum to the hydrogeological report stated that the excavation of the borrow areas would result in elevations 1-2 feet lower than ground water levels in surrounding undisturbed areas. (T p. 478)

Mr. Martin

39. Kevin Charles Martin, President of Soil and Environmental Consultants, described briefly his work history and experience, involvement in the Riegel Ridge landfill project, and identified and summarized his resume. (T pp. 498-504; Exh. RI-6) Mr. Martin was qualified as an expert in wetlands delineations, wetlands designation and protection and regulatory programs. (T p. 505).

40. Mr. Martin testified that he and his staff worked with Riegel Ridge to prepare the 401 Application, as well as many of the subsequent responses to later information requests from DWQ. (T pp. 505-506) Mr. Martin testified that he personally assisted in preparing the wetlands monitoring plan for the site, and he described that plan, including earlier versions of the plan. (T pp. 506-515; Exhs. F-4, 5 & 6) He testified that the wetlands monitoring plan was intended to monitor the potential effects that the digging of borrow pits might or could have on the adjacent wetlands. (T p. 518)

41. In response to a question about earlier testimony by Mr. Wells regarding the potential draw-down of the water table under or near the wetland areas near the proposed landfill through the dewatering the borrow pits, Mr. Martin clarified that these plans for the operation of the borrow pits had been changed, such that, under the current plan, there would be no draw-down of the water in the borrow pits. As a result of this change, Mr. Martin testified that it was his opinion that there would be no change in the gradient of the water table by virtue of the location or operation of the borrow pits, and, thus, the borrow pits would have no adverse impact on the adjacent wetlands. (T pp. 519-23; 578-80) He identified the paragraph in the 401 Application and addendum No. 2 to the hydrogeological report where these changes in the operation of the borrow pits is described. (T p. 576-77; Exh. E-3, B)

42. Mr. Martin further testified that, if, notwithstanding the planned elements in the operation of the borrow pits and other aspects of the proposed landfill, the proposed landfill were shown to be having an adverse impact on the wetlands, the wetland monitoring plan is designed to (and, in fact, would) detect the problem and enable the impact to be stopped before any substantial adverse effect took place. (T p. 523-24) Mr. Martin testified that, in his opinion, the wetlands monitoring plan would be sufficient to ensure adequate monitoring of any adverse impacts of the proposed landfill (including its borrow pits) on the adjacent wetlands, and, as such, the wetland monitoring plan will protect the wetlands on and adjacent to the site, and their function in protecting water quality. (T pp. 540-41; 553-54)

43. Mr. Martin explained that the Wetlands Program required mitigation for the 0.69 acres of wetlands that would be impacted by the landfill project. (T pp. 529-531; Exh F-3) In conjunction with the 401 and 404 Application, Mr. Martin conducted a wetlands delineation of the proposed site, and a soil survey. (T pp. 501-502) He described in detail the process he undertook to determine the jurisdictional wetlands on the site. (T pp. 531-534). He testified that the monitoring plan map accurately and completely reflected the official wetlands designation. (T p. 535).

44. Mr. Martin testified that, in his experience, approximately 70-80% of 401 certifications have additional conditions imposed, and that, specifically, it is fairly common to leave open conditions for modifications of wetlands monitoring plans. (T p. 536-37) He further testified that, in his experience, if the actions required by the 401 certifications are not complied with, DWQ typically takes enforcement action. (T p. 538)

45. Mr. Martin, in reviewing the comments submitted to the Corps by Dr. Riggs, stated that the wetlands near the borrow pits were not pocosins, contrary to the characterization as such by Dr. Riggs, but rather they would be described as wet flats. (T pp. 542-546) Based on his soil survey and wetlands delineation, Mr. Martin testified that the proposed landfill would be described as being located on "uplands," that is the facility itself would not be on wetlands, other than the 0.69 acres. (T p. 550) "Uplands" simply refers to land that would not be classified as "wetlands," no matter how low and flat it might be.

Mr. Heath

46. Ralph Heath was qualified as an expert in hydrogeology, and his resume and bibliography were entered into the record. (T p. 738; Exh. RI-12) Mr. Heath briefly described his background in hydrogeology as it related to hazardous and solid waste disposal, and his

experience, presentations, and opinions regarding the best locations for landfills to be sited. (pp. 738-40). Mr. Heath testified that he had prepared an aquifer sensitivity study for Brunswic County, part of which had been mis-quoted at the public hearing in this matter. (T pp. 740-43 He stated that he had listened to the testimony of Dr. Riggs, and had reviewed his comments, an was still of the opinion, as expressed in the letter he wrote to Kevin Martin (Exh. H-8), that th proposed site is suitable from a hydrogeological perspective (T pp. 743-746). Mr. Heat concurred with the testimony of Dr. Riggs that the Waccamaw Drainage Basin is a resource i need of protection, and that there are "some very significant depletions of groundwater" in th central coastal plain, but stated that there are no real water shortages in the immediate area of th landfill at this time. (T pp. 745-46)

47. Mr. Heath testified that the maintenance of the borrow pits will contribute to the wetlands because the ponds will have five times more water than the surrounding ground, and because the rainfall on the borrow pits would exceed evaporation. (T p. 750-51) It was his opinion that the construction and operation of the landfill would have no adverse impact on the Pee Dee aquifer. (T p. 751) He also testified that surface flow from the landfill site will drain generally southwest. (T pp. 752-53) With respect to Dr. Riggs' testimony that the flow of water can change due to winds, Mr. Heath testified it would be impossible for surface water or groundwater to flow from the landfill site to Lake Waccamaw, even in hurricane conditions. (T pp. 754-755)

48. Mr. Heath testified that he had reviewed the hydrogeological reports submitted by Riegel Ridge and had heard the testimony of Dr. Bonaparte. Based on his experience, and his review of the testimony regarding the construction of Subtitle D landfills, and his review of the groundwater monitoring plan, it was his opinion that there would be no adverse effect on groundwater in or around the landfill. (T pp. 756). Even if there were a leachate release at the landfill, the location of the landfill near the Honey Island Creek would protect groundwater, since the creek could function as a discharge point. (T pp. 757-58)

Submittal and Review of the 401 Application in this Matter

49. With respect to the compaction of soils caused by the landfill, Mr. Heath testified that hydraulic conductivity under the landfill would be reduced, and water would squeeze out toward groundwater discharge areas, but it would not adversely impact the PeeDee Aquifer, or impact the hydrogeology outside the footprint of the landfill. (T pp. 760-61) It was his opinion that the site and facility would more than adequately assure protection of groundwater and surface water. (T p. 761) Mr. Heath testified that even if there were a series of hypothetical large rain events, the site would not be an improper or bad site. (T p. 771-72)

50. Riegel Ridge completed a Site Study and submitted it to DWM on March 3, 2000. In March of 2001, DWM indicated that it would require Riegel Ridge to have received a 404 Permit for the filling of the Man-made Ditch before it would consider issuance of the Site Suitability Determination. Once that determination is made, the final design of the landfill project can be made.

51. The 401 Certification does not authorize or permit Riegel Ridge to undertake any construction or other land-disturbing activity at the Landfill. In particular, the 401 Certification

does not, standing alone, authorize Riegel Ridge to fill the 0.69 acres of wetlands, for which Riegel Ridge must receive the 404 Permit from the Corps.

52. In addition to the 404 Permit, before it can begin construction and ultimately operation of the landfill facility, Riegel Ridge will have to obtain, at a minimum, two permits from DWM, a permit to construct and a permit to operate (the "DWM Solid Waste Permits"). Riegel Ridge will also have to obtain a number of other permits before it can begin operation. The issuance of the 401 Certification in no way guarantees Riegel Ridge will obtain all the permits it requires to construct and operate the Landfill.

53. Riegel Ridge submitted a combined 404/401 Application to the Corps on October 15, 2001 (the "401 Application"). The Application is labeled a "404/401 Application" because it serves the dual purposes of constituting an application for both the 401 certification, as well as the 404 Permit. The 401 Application was submitted in connection with the request for a 404 Permit for the construction and operation of a 107-acre municipal solid waste landfill along Highway 211 that would impact approximately 0.69 acres of jurisdictional waters, which are in the form of a man-made ditch that was constructed by prior owners of the property, who had conducted silvaculture activities at the site. (T pp. 124-25; Exhs. B, RI-11)

54. DWQ received from the Corps notice of the 401 Application on or about December 17, 2001. (T p. 125, Exh. A)

55. Over the next few months, DWQ requested on several occasions, and Riegel Ridge provided, additional information necessary for DWQ's review of the 401 Application. (T pp. 373-383; *See,* Exhs. B, B-1, B-2, L-5, L-12, L-13) The additional information provided by Riegel Ridge included the site hydrogeological report and its two addenda containing the surface and groundwater monitoring plans. In addition, Riegel Ridge provided a detailed written response to concerns raised by the Wildlife Resources Commission with respect to future impacts to wetlands, potential impacts on hydrology of groundwater, stormwater controls, sedimentation and erosion controls, impacts to wetlands adjacent to the borrow pits, impacts on wildlife, and reclamation.

56. DWQ personnel conducted a site visit to the Landfill site on or about March 22, 2002.

57. DWQ personnel held a public hearing on the 401 Application on April 18, 2002. The hearing was held at the Whiteville High School Auditorium, and lasted approximately three and one-half hours. The public hearing was attended by approximately 225 people. Through the hearing, DWQ received considerable information from the public that was well thought out, helpful to the hearing officer and DWQ, and showed a very good understanding by the public of the project proposed. By the end of the comment period, DWQ had received approximately 540 written comments, which DWQ reviewed and considered in reviewing the 401 Application and, ultimately, in making its decision to issue the 401 Certification. Petitioners attended the public hearing and submitted comments. (T p. 40, Exh. P-2).

58. After the public hearing, and based on issues raised at the public hearing, DWQ again requested on several occasions, and Riegel Ridge provided, additional information in response to those issues. (*See,* Exhs. L-18, K-3, L-22, L-25, L-26, and L-28) This information included a Gull Management Plan, a response to the Gull Management plan from the North Carolina

Division of Parks and Recreation, a letter from Ralph Heath regarding the proposed site location, floodplain studies and maps, wetlands monitoring plans, and stormwater monitoring plans.

59. All of the information obtained by DWQ was kept by DWQ in its files in the normal course of business of the Agency, and was available to the public for its review under the North Carolina Public Records Act.

60. The hearing officer prepared the Hearing Officer's Report reflecting the information and comments obtained at the hearing, and the information received by DWQ from Riegel Ridge. (Exh. C) The Hearing Officer's Report contained several recommended special conditions to be imposed in the 401 Certification necessary to address the concerns of the public and the issues raised at the hearing. (*See,* Addendum to Exh C)

61. DWQ issued the 401 Certification to Riegel Ridge on December 16, 2001. The 401 Certification contains many conditions, including the recommended special conditions in the Hearing Officer's Report, which were imposed pursuant to DWQ's authority in 15A NCAC 2H.0507. The conditions include specific revisions that must be incorporated into final surface water monitoring, wetlands monitoring, avian monitoring, groundwater monitoring, and stormwater monitoring plans, and require that Riegel Ridge must be in full compliance with G.S. 143-215.54 regarding landfill siting in floodplains (the "Conditions"). The Conditions address the issues raised by the public at the public hearing and agency concerns. Compliance with the Conditions would not result in a significant or substantive change in the project such that a new 401 certification would be required.

Surface Water and Groundwater

62. Riegel Ridge submitted a series of surface and groundwater monitoring plans to DWQ as part of its 401 Application. These plans were incorporated into the Site Hydrogeological Report prepared by Titan Atlantic Group, including two addenda to that report. (*See,* Exhs. E-1, 2 & 3) The most recent version of the surface water monitoring plan provides for sampling of surface water at a minimum of three points - upstream, midstream and downstream, in addition to monitoring of surface water in the borrow pit areas once those areas have been excavated. The most recent groundwater plan provides specifications for construction and location of eleven monitoring wells (seven shallow and four deep) to provide early detection of any release to the uppermost aquifer. Detailed detection monitoring and sampling and analysis procedures are also contained in the plans (*See,* Exh. E-3)

63. With respect to the borrow pits, Addendum 2, as well as in the 401 Application, explains that the borrow areas will not be dewatered during excavation. Instead, the applicant will use clam shell buckets or drag lines in order to prevent impacts to the adjacent wetlands. The depth of those excavations will be measured so as to not penetrate the top of Layer C. Borrow areas will be separated from adjacent delineated wetlands by a buffer.

64. The Conditions require the surface water monitoring plan to, among other things, provide for certain specified monitoring locations, include minimum pre-construction data collection requirements, and provide for minimum sampling requirements. The Conditions also require Riegel Ridge to obtain and comply with an NPDES Permit to Discharge Stormwater, report all sampling, and conduct proper collection, containment, disposal and transportation of

leachate. The Conditions require the groundwater monitoring to continue in perpetuity, and to trigger certain remedial action, including possible suspension of acceptance of waste, should statistically significant increase in background levels be detected. None of the required revisions would substantially change the design or operation of the proposed Landfill.

65. The Subtitle D Regulations for municipal solid waste landfills require liner systems and leachate collection and removal systems to protect surface and groundwater. The system planned for Riegel Ridge landfill is made up of several protective layers including 18 inches of compacted soil, a geosynthetic clay liner, a geomembrane, a geocomposite drainage layer to serve as part of the leachate collection system, and 24 inches of a protective soil layer. This system will be constructed with a minimum 2% slope towards the sumps. The sump areas would be constructed with enhanced liner systems which would increase the compacted clay liner to 24 inches, provide geomembrane layers on both sides of the geosynthetic clay liner, and add 18 inches of gravel above the geocomposite drainage layer. (*See,* Exhs. RI-2, 3 & 4). This system exceeds both state and EPA Subtitle D requirements. Studies of these types of liner systems in areas geologically and hydrologically similar to the proposed landfill site have shown the systems to adequately protect surface and groundwater, and specifically, to prevent leachate from the landfills from entering surface or groundwater.

66. The construction of the landfill will cause some compression of the soil and structural fill underneath the landfill, resulting in several feet of settlement of the facility. However, the facility is designed and constructed with such settlement taken into account. As a result, any such settlement will have no adverse affect on surface or groundwater.

Wetlands

67. The proposed landfill plans provide for seven borrow areas totaling approximately 216 acres to be excavated for structural fill, berm construction, cover material, and other uses on the Landfill. The borrow areas are proposed to be located in non-jurisdictional areas of the property adjacent to jurisdictional wetlands.

68. The wetlands on the site were determined using Corps accepted practices, and the maps of jurisdictional wetlands were accepted by the Corps. The footprint of the Landfill would be located entirely in upland areas, except for the .69 acre Man-made Ditch to be impacted by the project. Riegel Ridge will be providing mitigation for the impact to the .69 acres. (Exh. F-3)

69. Riegel Ridge submitted a series of wetlands monitoring plans in response to requests from DWQ. The most recent version of the plan, dated July 19, 2002 (Exh. F-6), explains the wet excavation process proposed to be used in the borrow pits. The plan is designed to monitor any effects that digging of the borrow pits may have on the adjacent wetlands. The plan proposes 28 groundwater monitoring devices be installed within the wetlands, eleven of which would be controlled devices located in the center of those wetlands. A shallow and deep unit will be installed at each location. The plan provides details regarding construction of monitoring devices, monitoring and maintenance schedules, and data analysis and reporting.

70. DWQ received a wetlands monitoring plan on November 1, 2002, and reviewed and considered the wetlands monitoring plan when it issued the 401 Certification. The Conditions require the plan to be revised to include provisions for physical monitoring for eroding or

sloughing wetland, a schedule and account for when the ditches on the site would be plugged, inspection and reporting of that plugging, and annual reporting of well data and hydrological status of the wetlands. None of these required revisions are expected to change the project, or the wetlands monitoring plan.

Stormwater

71. In response to concerns raised at the public hearing, DWQ requested Riegel Ridge provide a stormwater management plan for its consideration in reviewing the 401 Application. Riegel Ridge provided a plan, dated June 14, 2002, which was then revised according to subsequent comments from DWQ. The revised stormwater management plan was submitted by letter dated October 31, 2002. (Exh. I-2)

72. The revised stormwater management plan includes detailed computations for culverts, maintenance area perimeter ditches, stage storage computations, and 2, 5, and 10-year storm routing. The plan also includes five detailed drawings of the stormwater plan including the cover, site plan, plan and profile of the west, east, and south perimeter ditches, and construction details.

73. DWQ received, reviewed, and considered this stormwater management plan when making its decision regarding the issuance of the 401 Certification. The Conditions require the stormwater management plan be submitted for final DWQ approval to be revised to include: depiction of stormwater treatment from roads, office areas, and other structures outside the landfill footprint, to require written notice to DWQ should recycling areas or staging areas for household use be planned, to require 3:1 minimal side slopes, require monthly monitoring and monitoring after every 10-year storm event, maintenance of a rain gauge, and submission of post-closure monitoring reports. None of these required revisions would substantively change the project or the stormwater management plan.

Floodplains

74. G.S. 143-215.54(c) provides: "New solid waste disposal facilities . . . are prohibited in the 100-year floodplain except as authorized under G.S. 143-215.54A(b)." The Conditions require Riegel Ridge to be in full compliance with this statute.

75. The currently published FEMA Flood Insurance Rate Maps ("FIRM") used to determine the location of the 100-year floodplain show that the landfill site would be located outside of the 100-year floodplain. FEMA is in the process of revising its FIRM maps and has released a preliminary map which also shows the landfill site as being outside the 100-year floodplain.

76. Current DWM policy requires applicants to confirm the accuracy of the published FEMA maps. Prior to the release of the preliminary new FIRM maps, Riegel Ridge hired Alpha and Omega to perform a flood study evaluation to confirm the existing published FEMA maps. The Alpha and Omega study indicated that the FEMA maps may not be accurate. Riegel Ridge submitted that study to DWQ for its review. The Alpha and Omega study included maps indicating, in addition to areas that would be considered regulated floodplain areas, non-regulated areas where there may be standing water on the site after a 100-year storm event.

77. Because the Alpha and Omega study indicated the published FEMA maps may not be accurate, Riegel Ridge protectively applied to Columbus County for a variance pursuant to G.S. 154-215.54A(b). Subsequent to its applying for a variance, the preliminary revised FIRM maps were released. Columbus County has since confirmed that Riegel Ridge, at this time, is not required to obtain a variance based on the showing in the preliminary revised FIRM maps that the landfill site is outside the 100-year floodplain.

Avian Issues

78. In response to concerns raised by the North Carolina Division of Parks and Recreation, Riegel Ridge hired Ecological Solutions to study the potential for the landfill to attract a large population of gulls that may then roost at Lake Waccamaw and cause increased problems with nitrification at the lake. (*See*, Exh. G-1). Ecological Solutions prepared a series of reports that were submitted to DWQ. The final report, dated March 20, 2002, provides for an onsite management plan and monitoring plan for gulls. The Division of Parks and Recreation subsequently conveyed, in a letter dated May 2, 2002, to the Director of the Division of Solid Waste, that its concerns with respect to gulls have been satisfied based on the information provided by Riegel Ridge.

79. Riegel Ridge provided the final Gull Study to DWQ, as well as the May 2, 2002, letter from the Division of Parks and Recreation. DWQ reviewed and considered this information when it made its decision to issue the 401 Certification. The Conditions require that a final avian monitoring plan must describe monitoring station locations, that additional monitoring or action plans may be required if monitoring indicates water quality standards violations, and that an annual report must be submitted to DWQ reflecting the previous years monitoring efforts. None of these required revisions would substantively change the project, or the avian monitoring plan.

Relationship Between Riegel Ridge and Waste Management

80. Riegel Ridge became a wholly owned subsidiary of WMC in October, 2003. Prior to that time, as early as February 4, 1999, Riegel Ridge had some sort of a contractual relationship with WMC, but there is no evidence that WMC had any ownership interest in or control over Riegel Ridge prior to October, 2003.

81. A letter dated January 8, 2002, from Columbus County to DWM reflects the County's understanding as of that time that WMC was to be involved in the permitting of the Landfill. (Exh. RI-11) There was also testimony that this possibility had been generally known to Columbus County well prior to that time.

82. In the fall of 2001, at a meeting with DWQ and counsel for DWQ, Riegel Ridge disclosed to DWQ that WMC would be acquiring control of Riegel Ridge. Riegel Ridge had not made this disclosure in writing to DWQ as of the time of the hearing, but there was no indication that such a disclosure could not be made after the hearing in a timely manner and in compliance with the 401 Certification, and Mr. Dreitzler testified that it would be made after the hearing in a timely manner and in compliance with the 401 Certification.

83. It appears from the testimony and documents at the hearing that Riegel Ridge will continue to be a wholly owned subsidiary of WMC, and, as such, will continue to be the party responsible for applying for and obtaining the various permits necessary for the construction and operation of the proposed Landfill and also be responsible for developing and operating the proposed Landfill in accordance with those permits.

84. WMC's involvement with Riegel Ridge had no impact on DWQ's review of the 401 Application or its review or decision with respect to the issuance of the 401 Certification.

CONCLUSIONS OF LAW

Based on the foregoing Findings of Fact, the undersigned makes the following Conclusions of Law:

Jurisdiction and Parties

1. The Petition was timely filed, and OAH has jurisdiction to hear this case pursuant to G.S. 150B-23.

2. Petitioners have standing to contest the issuance of the 401 Certification.

3. WMC is a necessary party to this contested case and was properly added as an additional Respondent-Intervenor.

4. In the Petition and through their testimony, Petitioners did not proffer any specific allegations as to how the construction and operation of the proposed landfill would violate water quality standards. Petitioners' challenge and testimony, as summarized herein, focused primarily on the conditional nature of the conditions contained in the 401 Certification, the purported absence of a final approval of various plans required by the 401 Certification, and certain potential or hypothetical conditions that might occur in the future.

401 Certifications and Standard for DWQ's Review

5. A 401 certification, such as the 401 Certification at issue in this case, is issued pursuant to § 401(a)(1) of the federal Water Pollution Control Act Amendments ("FWPCAA" or the "federal Clean Water Act"). Section 401(a)(1) of the federal Clean Water Act provides, among other things, that, "[a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates . . . that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of this title." 33 U.S.C. § 1341(a)(1)

6. A 401 certification provides the certifying State with an opportunity to review the proposed activity for its potential water quality impact and to determine whether the project will (or will not) meet the State's applicable water quality standards. Section 401(d) of the Clean Water Act provides that certifying States may impose limitations and monitoring requirements in their 401 certifications necessary to ensure that an applicant will comply with the State's water

quality standards. Under the federal Clean Water Act, such state limitations and requirements are mandated to become a condition of the Federal permit. 33 U.S.C. § 1341(d).

7. EPA adopted regulations interpreting and otherwise implementing § 401 of the Clean Water Act; those rules are codified in 40 C.F.R., Part 121 (the "Federal 401 Rules"). Pursuant to those Federal 401 Rules, the reviewing agency (which, in this case, is DWQ) must state and be able to conclude that "there is a reasonable assurance that the activity will be conducted in a manner which will not violate applicable water quality standards . . ." 40 C.F.R. 121.2(a)(3) (emphasis added).

8. The General Assembly granted to the Environmental Management Commission ("EMC") the power to administer the State's authority under the federal 401 certification program. G.S. 143B-282(a)(1)u. Acting pursuant to this provision and its rule-making authority, the EMC adopted rules governing the issuance of 401 certifications, which are codified in Section .0500 of Subchapter 2H of Title 15A of the North Carolina Administrative Code, 15A NCAC 2H.0500, et seq. (the "NC 401 Certification Rules"). The EMC also delegated to DWQ the authority to issue 401 certifications, such as the 401 Certification at issue in this appeal.

9. The NC 401 Certification Rules contemplate an "application for certification," and they list the information that must be contained in an application. However, those rules also provide that DENR staff "shall conduct such investigation as the Director deems necessary" and that "[t]he Director may request, and the applicant shall furnish, any additional information that may be found necessary for the proper consideration of the application." 15A NCAC 2H .0502(c) and .0502(e). In so providing, the NC 401 Certification Rules contemplate that applicants for 401 certifications will often be asked to provide additional information beyond that which is submitted in the original application for the 401 Certification, and the testimony during the hearing confirmed that this is often the case as DWQ reviews 401 applications.

10. Section .0506 of those NC 401 Certification Rules governs the standards that the Director is to apply in deciding whether to grant the 401 Certification. Under this section, the Director "shall issue a certification upon determining that existing uses are not removed or degraded by a discharge to classified surface water for an activity which" meets six criteria discussed below. 15A NCAC 2H.0506(b). That is, the rule appears to create a presumption that the 401 certification will be issued once the applicant meets the requirements of the rule to the satisfaction of the DWQ Director.

11. The six criteria that the DWQ is to apply to a request for a 401 Certification that does not remove existing uses are that the proposed activity:

(1) has no practical alternative under the criteria outlined in Paragraph (f) of this Rule;
(2) will minimize adverse impacts to the surface waters based on consideration of existing topography, vegetation, fish and wildlife resources, and hydrological conditions under the criteria outlined in Paragraph (g) of this Rule;
(3) does not result in the degradation of groundwaters or surface waters;

(4) does not result in cumulative impacts, based upon past or reasonably anticipated future impacts, that cause or will cause a violation of downstream water quality standards;

(5) provides for protection of downstream water quality standards through the use of on-site stormwater control measures; and

(6) provides for replacement of existing uses through mitigation as described at Subparagraphs (h)(1) of this Rule.

12. Section .0507(c) of the NC 401 Certification Rules clearly authorizes that "[a]ny certification issued pursuant to this Rule may contain such conditions as the Director shall deem necessary to insure compliance" with the Sections of the federal Clean Water Act that establish and enforce water quality standards and effluent limitations. 15 NCAC 2H.0507(c), citing 33 U.S.C.A. §§ 1311, 1312, 1313, 1316, and 1317. The ability for DWQ to review and have final approval of the monitoring plans at a later stage in the permitting process for the Landfill will enable DWQ to impose final monitoring requirements after final site selection and design of the Landfill have been completed.

13. Under recent amendments to the Administrative Procedure Act ("APA"), which apply to this appeal, the General Assembly has directed that the undersigned is to "decide the case based upon the preponderance of the evidence, giving due regard to the demonstrated knowledge and expertise of the agency with respect to facts and inferences within the specialized knowledge of the agency." G.S. 150B-34(a)

14. Section 150B-23(a) of the APA places the burden on the Petitioners to show that, in granting the 401 Certification, DWQ committed one or more of the following errors: (1) exceeded its authority or jurisdiction; (2) acted erroneously; (3) failed to use proper procedure; (4) acted arbitrarily or capriciously; or (5) failed to act as required by law or rule. Petitioners have not met that burden in this case.

DWQ's Review and Issuance of the 401 Certification

15. At the time that DWQ issued the 401 Certification, it had in its files and otherwise before it for its consideration adequate data and information to allow it to fully evaluate the proposed Landfill project and its potential impact on water quality, and to make the other determinations that were required to make the decision to issue the 401 Certification. The testimony and exhibits at the hearing served primarily to corroborate and further explain and support that information before DWQ.

16. The surface and groundwater monitoring plans, other information related to surface and groundwater submitted by Riegel Ridge, and the information obtained through the public hearing and comment period, were sufficient to enable DWQ to find there was adequate assurance that surface and groundwater quality will be protected if the Conditions imposed in the 401 Certification related to surface and groundwater are met.

17. The wetlands monitoring plans, other information related to wetlands submitted by Riegel Ridge, and the information obtained through the public hearing and comment period, were sufficient to enable DWQ to find there was adequate assurance that wetlands will be protected if the Conditions imposed in the 401 Certification related to wetlands are met.

18. The stormwater monitoring plans, other information related to stormwater submitted by Riegel Ridge, and the information obtained through the public hearing and comment period, were sufficient to enable DWQ to find there was adequate assurance that the stormwater control measures planned for the Landfill will adequately protect water quality if the Conditions imposed in the 401 Certification related to stormwater are met.

19. The avian monitoring plans, other information related to avian issues submitted by Riegel Ridge, was sufficient to enable DWQ to find there was adequate assurance that water quality will be protected if the Conditions imposed in the 401 Certification related to avian issues are met.

20. Whether the proposed Landfill would be located in the floodplain is not a part of DWQ's review and issuance of the 401 Certification. This determination as to the project whether the proposed Landfill would not violate G.S. 143-215.54(b) is made by another agency.

21. WMC's purchase of all of the shares of Riegel Ridge in October, 2003, and Petitioners' claims that neither the transfer nor Mr. Dreitzler's ties to WMC were properly or adequately disclosed to DWQ, do not constitute a basis for overturning the 401 Certification, even if demonstrated. Testimony by DWQ personnel indicated that these matters had no effect on DWQ's decision to issue the 401 Certification, nor would they have had an effect had they not been known or disclosed, thereby confirming that they were not relevant to the propriety of the issuance of the 401 Certification, even if there were some shortcoming with regard to those matters.

22. DWQ properly reviewed the 401 Application under Rule .0506(b) of the NC 401 Certification Rules, reflecting DWQ's correct determination that existing uses would not be removed or degraded by a discharge to surface waters from the Landfill. As is demonstrated by the 401 Certification granted here, as well as the Hearing Officer's Report and the data reviewed by DWQ, the proposed landfill meets the six criteria in Rule .0506(b). DENR had completed what it determined to be its required investigation and had received sufficient additional information such that it could make a "proper consideration of the application." DWQ's review was in accordance with North Carolina law governing 401 certifications.

23. The fact that DWQ made the 401 Certification conditional upon final review and approval of those plans in no way means it did not properly consider the impact of the wetlands impacts on water quality. In fact, DWQ's decision to impose the conditions is precisely what Congress had in mind when it promulgated § 401(d). As § 401(d) allows, DWQ imposed conditions requiring final approval of monitoring plans prior to any activities on the site. Those conditions will become conditions of the 404 Permit, and failure of Riegel Ridge to comply with those conditions would, therefore, constitute a permit violation subject to enforcement.

DECISION

BASED ON THE FOREGOING, the undersigned concludes that the 401 Certification was properly issued by DWQ and that the EMC should issue the 401 Certification as its final agency decision.

NOTICE

The Agency that will make the final decision in this contested case is the Environmental Management Commission.

The Agency is required to give each party an opportunity to file exceptions to the recommended decision and to present written arguments to those in the Agency who will make the final decision. G.S. 150-36(a). The Agency is required by G.S. 150B-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 OAH.

In accordance with G.S. 150B-36 the Agency shall adopt each finding of fact contained in the Administrative Law Judge's decision unless the finding is clearly contrary to the preponderance of the admissible evidence. For each finding of fact not adopted by the agency, the agency shall set forth separately and in detail the reasons for not adopting the finding of fact and the evidence in the record relied upon by the agency in not adopting the finding of fact. For each new finding of fact made by the agency that is not contained in the Administrative Law Judge's decision, the agency shall set forth separately and in detail the evidence in the record relied upon by the agency in making the finding of fact.

This the 26th day of August 2004.

James L. Conner, II
Administrative Law Judge

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