



Energy, Mineral &  
Land Resources  
ENVIRONMENTAL QUALITY

ROY COOPER  
Governor

MICHAEL S. REGAN  
Secretary

TRACY DAVIS  
Director

December 20, 2017

Lakes of Lockwood POA  
Attn: John Roades, President  
2686 Jessica Lane  
Supply, NC 28462

**Subject: Stormwater Permit No. SW8 010202  
The Lakes of Lockwood  
Overall Low Density Subdivision Project with an Area of Higher Density  
Brunswick County**

Dear Mr. Rhoades:

The Wilmington Regional Office received a complete, modified State Stormwater Management Permit Application for the subject project on December 4, 2017. Staff review of the plans and specifications has determined that the project, as proposed, will comply with the Stormwater Regulations set forth in Title 15A NCAC 2H.1000 effective January 1, 2017. We are forwarding modified Permit No. SW8 010202 dated December 20, 2017, for the construction, operation and maintenance of the stormwater control measures (SCMs), built-upon areas, as well as the stormwater collection system and/or vegetated conveyance system associated with the subject project. *Please replace the previously approved plan sheets with the attached modified and approved versions. Please replace the previous application (SWU-101), proposed deed restrictions and protective covenances, Low Density Supplement and Operation and Maintenance Agreement, and the Wet Pond Supplement and its Operation and Maintenance Agreement with the attached modified versions.*

This permit shall be effective from the date of issuance until May 10, 2025 and shall be subject to the conditions and limitations as specified therein, and does not supersede any other agency permit that may be required. Please pay special attention to the permit conditions regarding the operation and maintenance of the SCMs, stormwater collection system, and/or vegetated conveyances; the limitation of built-upon area; modification of the project; the procedures for changing ownership of and/or transferring the permit; and the need to renew the permit. Please also pay attention to the permit conditions that requires the recordation of deed restrictions and protective covenants, easements, and the maintenance agreement, which must all be provided along with certification upon completion of the project. Failure to comply with these requirements will result in future compliance problems.


The following modifications are included and covered by this permit:

1. Correcting and clarifying this permit to indicate this project is an overall low density project with an area of higher density being treated by a wet detention pond.
2. Increasing the built-upon area to 30%, which is the maximum allowed by the rules. Re-allocating the built-upon area to address lots that had exceeded their original allocations. Due to a change in the width of the roads, correcting the amount of built-upon area allocated to the roads.
3. Approving changes to the pond.
4. The modified permit clarifies the requirements of the rules to provide you with a better understanding of your obligations under the permit.

If any parts, requirements, or limitations contained in this permit are unacceptable, you have the right to request an adjudicatory hearing by filing a written petition with the Office of Administrative Hearings (OAH). The written petition must conform to Chapter 150B of the North Carolina General Statutes and must be filed with the OAH within thirty (30) days of receipt of this permit. You should contact the OAH with all questions regarding the filing fee (if a filing fee is required) and/or the details of the filing process at 6714 Mail Service Center, Raleigh, NC 27699-6714, or via telephone at 919-431-3000, or visit their website at [www.NCOAH.com](http://www.NCOAH.com). Unless such demands are made this permit shall be final and binding.

If you have any questions, or need additional information concerning this matter, please contact Christine Hall in the Wilmington Regional Office, at (910) 796-7215.

Sincerely,



For William E. (Toby) Vinson, Jr., PE, CPESC, CPM, Interim Director  
Division of Energy, Mineral and Land Resources

Enclosures: Attachment A – Built-Upon Area Allocation

GDS/canh: \\Stormwater\Permits & Projects\2001\010202 HD\2017 12 permit 010202

cc: Phil Norris, PE, Norris & Tunstall Consulting Engineers  
Brunswick County Engineering  
Wilmington Regional Office Stormwater File

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF ENERGY, MINERAL AND LAND RESOURCES

STATE STORMWATER MANAGEMENT PERMIT

OVERALL LOW DENSITY SUBDIVISION DEVELOPMENT WITH AN AREA OF  
HIGHER DENSITY

In accordance with the provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended, and other applicable Laws, Rules, and Regulations

PERMISSION IS HEREBY GRANTED TO

*Lakes of Lockwood POA*

*The Lakes of Lockwood*

*Jessica Lane, Lockwood Folly Township, Brunswick County*

FOR THE

construction, operation and maintenance of an overall low density subdivision with two curb outlet swales and an area of higher density treated in one (1) wet detention pond, in compliance with the provisions of 15A NCAC 2H .1000 (hereafter referred to as the "stormwater rules") and the approved stormwater management plans and specifications and other supporting data as attached and/or on file with and approved by the Division of Energy, Mineral and Land Resources (the "Division" or "DEMLR") and considered an enforceable part of this permit.

This permit shall be effective from the date of issuance until May 10, 2025 and shall be subject to the following specified conditions and limitations:

**I. DESIGN STANDARDS**

1. This permit is effective only with respect to the nature and volume of stormwater described in the application and other supporting data.
2. The project shall maintain an overall density level that does not exceed 30%. This permit covers the construction of a total of 1,062,428 square feet of BUA, which includes 801,754 square feet of proposed BUA and 260,674 square feet of future BUA allocation.
3. The wet detention pond has been designed to handle the runoff from 669,254 square feet of impervious area. This stormwater system has been approved for the management of stormwater runoff as described in Section I.11 of this permit. The runoff from all built-upon area within the permitted drainage area of this project must be directed into the permitted stormwater control measure.
4. The subdivision is permitted for 125 lots, each limited to a maximum amount of built-upon area as indicated in Attachment A of this permit.
5. The drainage areas will be limited to the amount of built-upon area indicated in Sections I.2, I.3, and I.11 of this permit, and per approved plans. This permit does not currently provide any allocation of built-upon area for future development within the wet detention pond drainage area.

6. A 30' wide vegetative buffer must be provided and maintained adjacent surface waters, measured horizontally from and perpendicular to the normal pool of impounded structures, the top of bank of both sides of streams and rivers and the mean high water line of tidal waters.
7. The low density portion of this project proposes two curb outlet systems. Each designated curb outlet swale or 100' vegetated area shown on the approved plan must be maintained at a minimum of 100' long, maintain 5:1 (H:V) side slopes or flatter, have a longitudinal slope no steeper than 5%, carry the flow from a 10 year storm in a non-erosive manner, and maintain a dense vegetated cover.
8. Within the low density portion of this project, runoff conveyances other than the curb outlet system swales, such as perimeter ditches, must be vegetated with side slopes no steeper than 3:1 (H:V).
9. Within the low density portion of this project, no piping shall be allowed except those minimum amounts necessary to direct runoff beneath an impervious surface such as a road or under driveways to provide access.
10. A vegetated filter strip is not required for this pond as it has been designed for a 90% total suspended solids removal efficiency.
11. The following design criteria have been permitted for the wet detention pond and it must be provided and maintained at the design condition.
 

a.	Drainage Area, acres:	59.74
	Onsite, ft <sup>2</sup> :	2,602,274
	Offsite, ft <sup>2</sup> :	0
b.	Total Impervious Surfaces, ft <sup>2</sup> :	669,254
	Onsite, ft <sup>2</sup> :	669,254
	Offsite, ft <sup>2</sup> :	0
c.	Average Pond Design Depth, feet:	7.5
d.	TSS removal efficiency:	90%
e.	Design Storm:	1.0"
f.	Permanent Pool Elevation, FMSL:	5.5
g.	Permitted Surface Area @PP, ft <sup>2</sup> :	32,578
h.	Permitted Temporary Storage Volume, ft <sup>3</sup> :	88,001
i.	Temporary Storage Elevation, FMSL:	8.0
k.	Controlling Orifice:	4.0"Ø pipe
l.	Permanent Pool Volume, ft <sup>3</sup> :	166,127
m.	Forebay Volume, ft <sup>3</sup> :	892,039
o.	Maximum Fountain Horsepower:	not allowed
p.	Receiving Stream / River Basin:	Stanbury Creek / Lumber
q.	Stream Index Number:	'59-25-1-17
r.	Classification of Water Body:	"C, SW, HQW"

## II. SCHEDULE OF COMPLIANCE

1. No component of the approved stormwater management system or the runoff collection and conveyance system, as shown on the approved plans, shall be altered, modified, filled in, piped, redirected or changed in any manner, unless and until the permittee has submitted a revised plan to the Division and received approval.
2. The approved stormwater management system shall be entirely constructed, vegetated and operational for its permitted use prior to the construction of any built-upon surface.
3. The maximum built-upon area assigned to each lot via this permit and the recorded deed restrictions may not be increased or decreased by either the individual lot owner or the permittee unless and until the permittee notifies the Division and obtains written approval from the Division.

4. The permittee shall review each lot for new construction and all subsequent modifications and additions, for compliance with the requirements of the permit. The plans reviewed must include all proposed built-upon area, grading, and driveway pipe placement. The permittee may establish an Architectural Review Board (ARB) or Committee (ARC) to review new and modified lot development plans for compliance with the Covenants and Restrictions, including the BUA limit. However, any approval given by the ARB or ARC on behalf of the permittee does not relieve the permittee of the responsibility to maintain compliance with the overall permitted built-upon area for the project.
5. The permittee is responsible for verifying that the proposed built-upon area on each individual lot, and for the entire project, does not exceed the maximum allowed by this permit. The permittee shall routinely monitor the lots and where a lot is determined to have exceeded the permitted maximum BUA, the permittee shall notify the lot owner of such in writing and shall require remediation within a reasonable time frame to bring the lot into compliance.
6. The permittee shall submit to the Director and shall have received approval for revised plans, specifications, and calculations prior to construction, for any modification to the approved plans, including, but not limited to, those listed below:
  - a. Any revision to any item shown on the approved plans, including the stormwater management measures, built-upon area, details, etc.
  - b. Redesign of the approved amount of built-upon area.
  - c. Expansion or enlargement of the approved drainage area.
  - d. The construction of built-upon area in excess of the maximum approved amount.
  - e. Further development, subdivision, acquisition, lease or sale of any, all or part of the project area listed on the application.
  - f. Altering, modifying, filling in, piping, redirecting or changing in any manner any component of the runoff conveyance system shown on the approved plans.
  - g. The construction of any future BUA listed on the application.
7. The Director may determine that other revisions to the project should require a modification to the permit. If the stormwater system was used as an Erosion Control device, it must be restored to design condition prior to operation as a stormwater treatment device, and prior to occupancy of the facility.
8. During construction, erosion shall be kept to a minimum and any eroded areas of the system will be repaired immediately.
9. The modifications approved under this version of the permit require another certification to be provided. The permittee shall cause a certification from an appropriate designer for the system installed to be submitted, certifying that the permitted facility has been installed in accordance with this permit, the approved plans and specifications, and other supporting documentation. Any deviations from the approved plans and specifications must be noted on the Certification. A modification may be required for those deviations.
10. Decorative spray fountains will not be allowed in the stormwater treatment system.

11. Prior to the sale of any lot, deed restrictions must be recorded limiting the built-upon area per lot to the amount as shown in Section I, Part 2. The recorded statements must follow the form:
  - a. The maximum built-upon area per lot is as described in Attachment A. This allotted amount includes any built-upon area constructed within the lot property boundaries, and that portion of the right-of-way between the front lot line and the edge of the pavement. Built upon area includes, but is not limited to, structures, asphalt, concrete, gravel, brick, stone, slate, coquina and parking areas, but does not include raised, open wood decking, or the water surface of swimming pools.
  - b. The covenants pertaining to stormwater regulations may not be changed or deleted without concurrence of the State.
  - c. Alteration of the drainage as shown on the approved plan may not take place without the concurrence of the State.
  - d. Filling in, piping or altering any vegetated conveyances (ditches, swales, etc.) associated with the development except for average driveway crossings, is prohibited by any persons.
  - e. A 30' vegetated buffer must be maintained between all built-upon area and the Mean High Water line of surface waters.
  - f. All roof drains shall terminate at least 30' from the Mean High Water mark.
12. A copy of the recorded deed restrictions must be submitted to the Division within 30 days of the date of recording the plat, and prior to selling lots. The recorded copy must contain all of the statements above, the signature of the Permittee, the deed book number and page, and the stamp/signature of the Register of Deeds.
13. The permittee shall at all times provide the operation and maintenance necessary to assure the permitted stormwater system functions at optimum efficiency. The approved Operation and Maintenance Plan must be followed in its entirety and maintenance must occur at the scheduled intervals including, but not limited to:
  - a. Semiannual scheduled inspections (every 6 months).
  - b. Sediment removal.
  - c. Mowing and revegetation of side slopes.
  - d. Immediate repair of eroded areas.
  - e. Maintenance of swale and pond side slopes in accordance with approved plans and specifications.
  - f. Debris removal and unclogging of outlet structure, orifice device, catch basins and piping.
  - g. Access to the outlet structure must be available at all times.
  - h. Cleaning and repair of catch basin grates, flumes, and piping.
14. Records of maintenance activities must be kept and made available upon request to authorized personnel of the Division. The records will indicate the date, activity, name of person performing the work and what actions were taken.
15. The facilities shall be constructed in accordance with the conditions of this permit, the approved plans and specifications, and other supporting data.
16. Built upon area includes, but is not limited to, structures, asphalt, concrete, gravel, brick, stone, slate, coquina and parking areas, but does not include raised, open wood decking, or the water surface of swimming pools.
17. All stormwater collection and treatment systems must be located in either public rights-of-way, dedicated common areas or recorded drainage easements. The final plats for the project will be recorded showing all such rights-of-way, common areas and easements, in accordance with the approved plans. The permittee shall provide access to the stormwater facilities for inspection and maintenance via appropriate recorded easements to the nearest public right-of-way.

18. Prior to transfer of the permit, the stormwater facilities will be inspected by Division personnel. The project and the stormwater facility must be in substantial compliance with all permit conditions. Any items not in substantial compliance must be repaired, replaced or restored to design condition prior to the transfer. Records of maintenance activities performed to date will be required.
19. The Director may notify the permittee when the permitted site does not meet one or more of the minimum requirements of the permit. Within the time frame specified in the notice, the permittee shall submit a written time schedule to the Director for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the Director that the changes have been made.

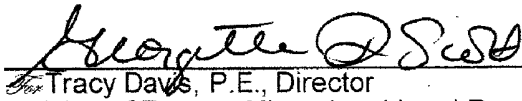
### III. GENERAL CONDITIONS

1. Any individual or entity found to be in noncompliance with the provisions of a stormwater management permit or the Stormwater rules is subject to enforcement procedures as set forth in NCGS 143 Article 21.
2. The issuance of this permit does not preclude the Permittee from complying with any and all statutes, rules, regulations, or ordinances, which may be imposed by other government agencies (local, state, and federal) having jurisdiction.
3. In the event that the facilities fail to perform satisfactorily the Permittee shall take immediate corrective action, including those as may be required by this Division, such as the construction of additional or replacement stormwater management systems. Additional or replacement stormwater management systems shall receive a permit from the Division prior to construction.
4. The permittee grants DEMLR Staff permission to enter the property during normal business hours for the purpose of inspecting all components of the permitted stormwater management facility.
5. This permit is not transferable to any person or entity except after notice to and approval by the Director. The permittee shall submit a completed and signed Name/Ownership Change Form, accompanied by the supporting documentation as listed on the form, to the Division at least 60 days prior to any one or more of the following events:
  - a. An ownership change including the sale or conveyance of the project area in whole or in part, except in the case of an individual lot sale that is made subject to the recorded deed restrictions;
  - b. The sale or conveyance of the common areas to a Homeowner's or Property Owner's Association, subject to the requirements of Session Law 2011-256;
  - c. Bankruptcy;
  - d. Foreclosure;
  - e. Dissolution of the partnership or corporate entity;
  - f. A name change of the current permittee;
  - g. A name change of the project;
  - h. A mailing address change of the permittee;
6. The permittee is responsible for compliance with all permit conditions until such time as the Division approves the transfer request.
7. The permit issued shall continue in force and effect until modified, revoked, terminated or renewed. The permit may be modified, revoked and reissued or terminated for cause. The filing of a request for a permit modification, revocation and re-issuance or termination does not stay any permit condition.
8. Approved plans, calculations, supplement forms, operation and maintenance agreements and specifications for this project are incorporated by reference and are enforceable parts of the permit. A copy of the approved plans and specifications shall be maintained on file by the Permittee at all times.
9. Unless specified elsewhere, permanent seeding requirements for the stormwater control measure must follow the guidelines established in the North Carolina Erosion and Sediment Control Planning and Design Manual.

10. The issuance of this permit does not prohibit the Director from reopening and modifying the permit, revoking and reissuing the permit, or terminating the permit as allowed by the laws, rules and regulations contained in Session Law 2006-246, Title 15A NCAC 2H.1000, and NCGS 143-215.1 et.al.
11. The permittee shall submit a permit renewal application request at least 180 days prior to the expiration date of this permit. The renewal request must include the appropriate application, documentation and the processing fee.

Permit modified, corrected, updated, and re-issued this the 20<sup>th</sup> day of December 2017

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION



Tracy Davis, P.E., Director  
Division of Energy, Mineral and Land Resources  
By Authority of the Environmental Management Commission

**Permit Number SW8 010202**



**Low Density Residential Subdivisions**  
**Deed Restrictions & Protective Covenances**

In accordance with Title 15 NCAC 2H.1000 and S.L. 2006-246, the Stormwater Management Regulations, deed restrictions and protective covenants are required for **Low Density Residential Subdivisions** where lots will be subdivided and sold. Deed restrictions and protective covenants are necessary to ensure that the development maintains a "built-upon" area consistent with the applicable regulation governing the density level.

I, <sup>CA</sup> John W. Rhoades, acknowledge and affirm by my signature below, that I will cause the following deed restrictions and protective covenants to be recorded for Lakes of Lockwood Subdivision.

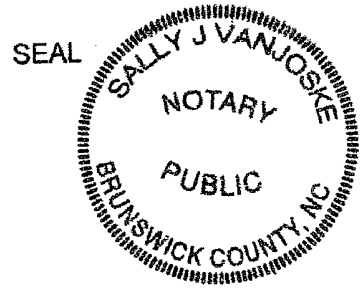
1. The following covenants are intended to ensure ongoing compliance with State Stormwater Management Permit Number **SW8 01020**, as issued by the Division of Water Quality under the Stormwater Management Regulations.
2. The State of North Carolina is made a beneficiary of these covenants to the extent necessary to maintain compliance with the stormwater management permit.
3. These covenants are to run with the land and be binding on all persons and parties claiming under them.
4. The covenants pertaining to stormwater may not be altered or rescinded without the express written consent of the State of North Carolina, Division of Water Quality.
5. Alteration of the drainage as shown on the approved plan may not take place without the concurrence of the Division of Water Quality.
6. The maximum allowable built-upon area per lot is (**SEE ATTACHED TABLE**) square feet. This allotted amount includes any built-upon area constructed within the lot property boundaries, and that portion of the right-of-way between the front lot line and the edge of the pavement. Built upon area includes, but is not limited to, structures, asphalt, concrete, gravel, brick, stone, slate, and coquina, but does not include raised, open wood decking, or the water surface of swimming pools.
7. In the case of a lot within CAMA's regulated AEC, where the Division of Coastal Management calculates a different maximum allowable built-upon area for that lot than is shown herein, the governing maximum built-upon area for that lot shall be the most restrictive of the two.
8. Filling in or piping of any vegetative conveyances (ditches, swales, etc.) associated with the development except for average driveway crossings is strictly prohibited by any persons.
9. Each lot will maintain a 50 foot wide vegetated buffer between all impervious areas and surface waters.
10. All roof drains shall terminate at least 50 foot from the mean high water mark of surface waters.

X Signature: John W. Rhoades Date: 8 Aug 2017

I, Sally J. Vanjoske, a Notary Public in the State of NC, County of Brunswick

do hereby certify that John W. Rhoades personally appeared before me this the 8th day of August, 2017, and acknowledge the due execution of the foregoing instrument. Witness my hand and official seal.

Sally J. Vanjoske  
Signature  
My Commission expires 9-13-2020  
September 13-2020



**LAKES OF LOCKWOOD - Lot BUA Allocation**  
**August, 2017**

LOT NUMBER	BUA	LOT NUMBER	BUA	LOT NUMBER	BUA	LOT NUMBER	BUA
1	4,500	33	4,500	65	6,758	97	4,500
2	5,340	34	4,500	66	4,500	98	5,510
3	4,500	35	4,500	67	4,500	99	4,500
4	4,658	36	4,500	68	6,535	100	5,887
5	4,500	37	4,500	69	5,584	101	4,500
6	5,116	38	4,500	70	5,155	102	6,732
7	4,885	39	4,567	71	5,237	103	4,500
8	4,552	40	6,000	72	4,921	104	4,781
9	4,500	41	6,000	73	5,406	105	4,500
10	4,500	42	4,500	74	5,839	106	4,500
11	4,871	43	5,003	75	4,500	107	7,685
12	4,500	44	5,539	76	5,734	108	4,500
13	5,603	45	5,021	77	4,500	109	4,500
14	4,500	46	6,211	78	6,000	110	4,500
15	4,500	47	5,348	79	6,000	111	4,500
16	4,500	48	4,500	80	6,000	112	4,500
17	4,500	49	5,307	81	6,000	113	4,500
18	4,500	50	5,124	82	6,000	114	4,500
19	5,833	51	5,660	83	6,000	115	4,500
20	4,500	52	4,500	84	6,000	116	4,500
21	8,670	53	4,500	85	6,000	117	4,500
22	4,500	54	4,500	86	6,000	118	4,500
23	4,500	55	4,500	87	6,000	119	4,500
24	4,500	56	4,500	88	6,000	120	4,500
25	4,500	57	5,332	89	6,000	121	5,672
26	4,500	58	7,505	90	6,000	122	4,500
27	4,500	59	4,500	91	6,000	123	4,500
28	4,546	60	4,500	92	6,000	124	5,391
29	4,500	61	4,714	93	6,000	125	6,276
30	4625	62	4,500	94	6,000		
31	4500	63	6,992	95	4,500		
32	4708	64	5,121	96	4,500	Total	637,454

**Legend:** Low Density Lots not draining to Stormwater Pond  
Lots draining to stormwater pond