

COMPREHENSIVE STORMWATER MANAGEMENT PERMIT

LOW DENSITY DEVELOPMENT

SECTION 1 – APPROVAL

Having reviewed the application and all supporting materials, the City of Wilmington has determined that the application is complete and the proposed development meets the requirements of the City of Wilmington's Comprehensive Stormwater Ordinance.

PERMIT HOLDER: **Duke Energy Progress**
PROJECT: **Wilmington Sunset Park 115kV Substation**
ADDRESS: **317 Bordeaux Avenue**
PERMIT #: **2017053**

Therefore, the above referenced site is hereby approved and subject to all conditions set forth in Section 2 of this approval and all applicable provisions of the City of Wilmington Comprehensive Stormwater Management Ordinance.

This permit shall be effective from the date of issuance until December 18, 2027 and shall be subject to the following specified conditions and limitations:

Section 2 - CONDITIONS

1. This approval is valid only for the stormwater management system as proposed on the approved stormwater management plans dated December 18, 2017.
2. The project will be limited to the amount and type of built-upon area indicated in Section IV of the Stormwater Management Application Form submitted as part of the approved stormwater permit application package, and per the approved plans.
3. The parcel is limited to a maximum of 46,138 square feet of built-upon area as indicated in the approved stormwater permit application package, and per the approved plans.
4. The permittee shall submit a revised stormwater management application packet to the City of Wilmington and shall have received approval prior to construction, for any modification to the approved plans, including, but not limited to, those listed below:
 - Any revision to any item shown on the approved plans, including the stormwater management measures, built-upon area, details, etc.
 - Redesign or addition to the approved amount of built-upon area or to the drainage area.
 - Further subdivision, acquisition, lease or sale of any part of the project area.
 - Filling in, altering, or piping of any vegetative conveyance shown on the approved plan.
 - Construction of any permitted future areas shown on the approved plans



Public Services

Engineering
414 Chestnut St, Suite 200
Wilmington, NC 28401
910 341-7807
910 341-5881 fax
wilmingtonnc.gov
Dial 711 TTY/Voice

5. This permit is not transferable except after application and approval by the City of Wilmington. In the event of a change of ownership, name change or change of address the permittee must submit a completed Name/Ownership Change form to the City of Wilmington at least 30 days prior to the change. It shall be signed by all applicable parties, and be accompanied by all required supporting documentation. Submittal of a complete application shall not be construed as an approved application. The application will be reviewed on its own merits by the City of Wilmington and may or may not be approved. The project must be in compliance with the terms of this permit in order for the transfer request to be considered. The permittee is responsible for compliance with all permit conditions until such time as the City of Wilmington approves the transfer request. Neither the sale of the project nor the conveyance of common area to a third party should be considered as an approved transfer of the permit.
6. Failure to abide by the conditions and limitations contained in this permit may subject the Permittee to enforcement action by the City of Wilmington, in accordance with Sections 18-52 and 18-53 and any other applicable section of the Land Development Code.
7. The City of Wilmington 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 City of Wilmington for modifying the site to meet minimum requirements. The permittee shall provide copies of revised plans and certification in writing to the City of Wilmington that the changes have been made.
8. 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.
9. In the event that the facilities fail to perform satisfactorily, including the creation of nuisance conditions, the Permittee shall take immediate corrective action, including those as may be required by the City of Wilmington, such as the construction of additional or replacement stormwater management systems.
10. The permittee grants City of Wilmington Staff permission to enter the property during normal business hours for the purpose of inspecting all components of the permitted stormwater management facility.
11. The permit issued shall continue in force and effect until revoked or terminated by the City of Wilmington. 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.
12. The approved stormwater management plans and all documentation submitted as part of the approved stormwater management permit application package for this project are incorporated by reference and are enforceable parts of the permit.
13. The permittee shall submit a renewal request with all required forms and documentation at least 180 days prior to the expiration date of this permit.



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14. If any one or more of the conditions of this permit is found to be unenforceable or otherwise invalidated, all remaining conditions shall remain in full effect.

Stormwater Management Permit issued this the 18th day of December, 2017.

for Sterling Cheatham, City Manager
City of Wilmington

III. CONTACT INFORMATION

1. Print Applicant / Signing Official's name and title (specifically the developer, property owner, lessee, designated government official, individual, etc. who owns the project):

Applicant / Organization: Duke Energy Progress

Signing Official & Title: Rodney Hutcherson, Director-Transmission Engineering

- a. Contact information for Applicant / Signing Official:

Street Address: 410 S. Wilmington Street, NC02

City: Raleigh State: NC Zip: 27602

Phone: 919-546-2235 Fax: N/A Email: Rodney.Hutcherson@duke-energy.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

- b. Please check the appropriate box. The applicant listed above is:

The property owner (Skip to item 3)

Lessee* (Attach a copy of the lease agreement and complete items 2 and 2a below)

Purchaser* (Attach a copy of the pending sales agreement and complete items 2 and 2a below)

Developer* (Complete items 2 and 2a below.)

2. Print Property Owner's name and title below, if you are the lessee, purchaser, or developer. (This is the person who owns the property that the project is on.)

Property Owner / Organization: _____

Signing Official & Title: _____

- a. Contact information for Property Owner:

Street Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____ Email: _____

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

3. (Optional) Print the name and title of another contact such as the project's construction supervisor or another person who can answer questions about the project:

Other Contact Person / Organization: Peter Sokalski, Duke Energy

Signing Official & Title: Senior Engineer

a. Contact information for person listed in item 3 above:

Street Address: 410 S. Wilmington Street, NC 02

City: Raleigh State: NC Zip: _____

Phone: 919-546-6123 Fax: _____ Email: peter.sokalski@duke-energy.com

Mailing Address (if different than physical address): _____

City: _____ State: _____ Zip: _____

IV. PROJECT INFORMATION

1. In the space provided below, briefly summarize how the stormwater runoff will be treated.

This low density project will only provide detention and does so through an existing depression in grade.

2. Total Property Area: 196,890 square feet

3. Total Coastal Wetlands Area: 0 square feet

4. Total Surface Water Area: 0 square feet

5. Total Property Area (2) – Total Coastal Wetlands Area (3) – Total Surface Water Area (4) = Total Project Area: 196,890 square feet.

6. Existing Impervious Surface within Property Area: 3,679 square feet

7. Existing Impervious Surface to be Removed/Demolished: 3,679 square feet

8. Existing Impervious Surface to Remain: 0 square feet

9. Total Onsite (within property boundary) Newly Constructed Impervious Surface (*in square feet*):

Buildings/Lots	514
Impervious Pavement	45,624
Pervious Pavement (adj. total, with % credit applied)	
Impervious Sidewalks	
Pervious Sidewalks (adj. total, with % credit applied)	
Other (describe)	
Future Development	
Total Onsite Newly Constructed Impervious Surface	46,138

10. Total Onsite Impervious Surface

(Existing Impervious Surface to remain + Onsite Newly Constructed Impervious Surface) = 46,138 square feet

11. Project percent of impervious area: (Total Onsite Impervious Surface / Total Project Area) x100 = 23.4%

12. Total Offsite Newly Constructed Impervious Area (improvements made outside of property boundary, in square feet):

Impervious Pavement	209
Pervious Pavement (adj. total, with % credit applied)	
Impervious Sidewalks	1,022
Pervious Sidewalks (adj. total, with % credit applied) Other (describe)	
Total Offsite Newly Constructed Impervious Surface	1,231

13. Total Newly Constructed Impervious Surface

(Total Onsite + Offsite Newly Constructed Impervious Surface) = 47,369 square feet

14. Complete the following information for each Stormwater BMP drainage area. If there are more than three drainage areas in the project, attach an additional sheet with the information for each area provided in the same format as below. Low Density projects may omit this section and skip to Section V.

Basin Information	BMP #	BMP #	BMP #
Receiving Stream Name	Greenfield Lake		
Receiving Stream Index Number	18-76-1		
Stream Classification	C;Sw		
Total Drainage Area (sf)	181,860		
On-Site Drainage Area (sf)	181,860		
Off-Site Drainage Area (sf)	0		
Total Impervious Area (sf)			
Buildings/Lots (sf)			
Impervious Pavement (sf)	45,624		
Pervious Pavement (sf)			
Impervious Sidewalks (sf)			
Pervious Sidewalks (sf)			
Other (sf)	514		
Future Development (sf)			
Existing Impervious to remain (sf)			
Offsite (sf)			
Percent Impervious Area (%)	25.4		

15. How was the off-site impervious area listed above determined? Provide documentation:

N/A

V. SUBMITTAL REQUIREMENTS

1. Supplemental and Operation & Maintenance Forms - One applicable City of Wilmington Stormwater BMP supplement form and checklist must be submitted for **each** BMP specified for this project. One applicable proposed operation and maintenance (O&M) form must be submitted for **each type** of stormwater BMP. Once approved, the operation and maintenance forms must be referenced on the final plat and recorded with the register of deeds office.
2. Deed Restrictions and Restrictive Covenants - For all subdivisions, outparcels, and future development, the appropriate property restrictions and protective covenants are required to be recorded prior to the sale of any lot. Due to variability in lot sizes or the proposed BUA allocations, a table listing each lot number, lot size, and the allowable built-upon area must be provided as an attachment to the completed and notarized deed restriction form. The appropriate deed restrictions and protective covenants forms can be downloaded at the link listed in section V (3). Download the latest versions for each submittal.

In instances where the applicant is different than the property owner, it is the responsibility of the property owner to sign the deed restrictions and protective covenants form while the applicant is responsible for ensuring that the deed restrictions are recorded.

By the notarized signature(s) below, the permit holder(s) certify that the recorded property restrictions and protective covenants for this project, if required, shall include all the items required in the permit and listed on the forms available on the website, that the covenants will be binding on all parties and persons claiming under them, that they will run with the land, that the required covenants cannot be changed or deleted without concurrence from the City of Wilmington, and that they will be recorded prior to the sale of any lot.

3. Only complete application packages will be accepted and reviewed by the City. A complete package includes all of the items listed on the City Engineering Plan Review Checklist, including the fee. Copies of the Engineering Plan Review Checklist, all Forms, Deed Restrictions as well as detailed instructions on how to complete this application form may be downloaded from:

<http://www.wilmingtonnc.gov/PublicServices/Engineering/PlanReview/StormwaterPermits.aspx>

The complete application package should be submitted to the following address:

City of Wilmington – Engineering
Plan Review Section
212 Operations Center Dr
Wilmington, NC 28412

VI. CONSULTANT INFORMATION AND AUTHORIZATION

1. Applicant: Complete this section if you wish to designate authority to another individual and/or firm (such as a consulting engineer and /or firm) so that they may provide information on your behalf for this project (such as addressing requests for additional information).

Consulting Engineer: Joshua Allen

Consulting Firm: McAdams

a. Contact information for consultant listed above:

Mailing Address: 3436 Toringdon Way Suite 110

City: Charlotte

State: NC

Zip: 28277

Phone: 704-527-0800

Fax: N/A

Email: jallen@mcadamsco.com

VII. PROPERTY OWNER AUTHORIZATION (If Section III(2) has been filled out, complete this section)

I, (*print or type name of person listed in Contact Information, item 2*) _____, certify that I own the property identified in this permit application, and thus give permission to (*print or type name of person listed in Contact Information, item 1*) _____ with (*print or type name of organization listed in Contact Information, item 1*) _____ to develop the project as currently proposed. A copy of the lease agreement or pending property sales contract has been provided with the submittal, which indicates the party responsible for the operation and maintenance of the stormwater system.

As the legal property owner I acknowledge, understand, and agree by my signature below, that if my designated agent (*entity listed in Contact Information, item 1*) dissolves their company and/or cancels or defaults on their lease agreement, or pending sale, responsibility for compliance with the City of Wilmington Stormwater Permit reverts back to me, the property owner. As the property owner, it is my responsibility to notify the City of Wilmington immediately and submit a completed Name/Ownership Change Form within 30 days; otherwise I will be operating a stormwater treatment facility without a valid permit. I understand that the operation of a stormwater treatment facility without a valid permit is a violation of the City of Wilmington Municipal Code of Ordinances and may result in appropriate enforcement including the assessment of civil penalties.

SEAL

Signature: _____

_____ Date: _____

I, _____, a Notary Public for the State of _____, County of _____, do

hereby certify that _____

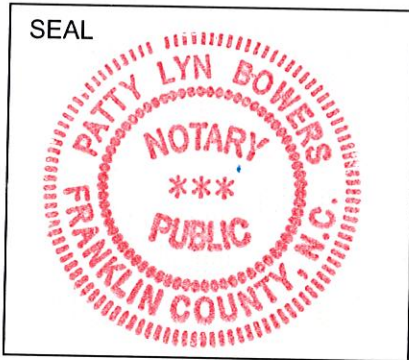
personally appeared before me this day of _____, _____.

and acknowledge the due execution of the application for a stormwater permit. Witness my hand and official seal,

My commission expires: _____

VIII. APPLICANT'S CERTIFICATION

I, (print or type name of person listed in Contact Information, item 1), Rodney Hutcherson certify that the information included on this permit application form is, to the best of my knowledge, correct and that the project will be constructed in conformance with the approved plans, that the required deed restrictions and protective covenants will be recorded, and that the proposed project complies with the requirements of the applicable stormwater rules under.



Signature: [Handwritten Signature]
Date: 11/29/17

I, Patty Lyn Bowers, a Notary Public for the State of North Carolina, County of Franklin, do hereby certify that Rodney N. Hutcherson personally appeared before me this day of November 29, 2017, and acknowledge the due execution of the application for a stormwater

permit. Witness my hand and official seal,
[Handwritten Signature]
My commission expires: November 21, 2020

Infiltration Basin Operation and Maintenance Agreement

I will keep a maintenance record on this BMP. This maintenance record will be kept in a log in a known set location. Any deficient BMP elements noted in the inspection will be corrected, repaired or replaced immediately. These deficiencies can affect the integrity of structures, safety of the public, and the removal efficiency of the BMP.

Important maintenance procedures:

- The drainage area will be carefully managed to reduce the sediment load to the infiltration basin.
- No portion of the infiltration basin will be fertilized.
- The vegetation in and around the basin will be maintained at a height that does not prohibit periodic inspection.

The infiltration basin will be inspected **annually**. Records of operation and maintenance will be kept in a known set location and will be available upon request.

Inspection activities shall be performed as follows. Any problems that are found shall be repaired immediately.

BMP element:	Potential problem:	How I will remediate the problem:
The entire BMP	Trash/debris is present.	Remove the trash/debris.
The perimeter of the infiltration basin	Areas of erosive gullies have formed.	Regrade the soil if necessary to remove the gully, and then plant a ground cover and water until it is established. Provide lime and a one-time fertilizer application.
The inlet device: pipe or swale	The pipe is clogged (if applicable).	Unclog the pipe. Dispose of the sediment off-site.
	The pipe is cracked or otherwise damaged (if applicable).	Replace the pipe.
	Erosion is occurring in the swale (if applicable).	Regrade the swale if necessary to smooth it over and provide erosion control devices such as reinforced turf matting or riprap to avoid future problems with erosion.

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DEC 05 2017

ENGINEERING

BMP element:	Potential problem:	How I will remediate the problem:
The main treatment area	A visible layer of sediment has accumulated.	Search for the source of the sediment and remedy the problem if possible. Remove the sediment and dispose of it in a location where it will not cause impacts to streams or the BMP. Replace any media that was removed in the process. Revegetate disturbed areas immediately.
	Water is standing more than 5 days after a storm event.	Replace the top few inches of filter media and see if this corrects the standing water problem. If so, revegetate immediately. If not, consult an appropriate professional for a more extensive repair.

Permit Number: _____
(to be provided by City of Wilmington)

I acknowledge and agree by my signature below that I am responsible for the performance of the maintenance procedures listed above. I agree to notify the City of Wilmington of any problems with the system or prior to any changes to the system or responsible party.

Project name: Wilmington Sunset Park 115 KV Substation

BMP drainage basin number: 1

Print name: David Koepnick

Title: Manager II, Substation Engineering

Address: 410 South Wilmington Street, NC 02, Raleigh, NC 27601

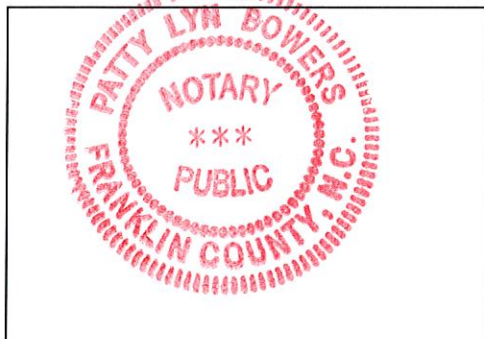
Phone: 919-546-7435

Signature: *David A. Koepnick*

Date: 11/30/17

Note: The legally responsible party should not be a homeowners association unless more than 50% of the lots have been sold and a resident of the subdivision has been named the president.

I, Patty Lyn Bowers, a Notary Public for the State of North Carolina, County of Franklin, do hereby certify that David A. Koepnick personally appeared before me this 30th day of November, 2017, and acknowledge the due execution of the forgoing infiltration basin maintenance requirements. Witness my hand and official seal,



Patty Lyn Bowers

SEAL

My commission expires November 21, 2020