



Major Stormwater Plan Form SW-002

Review Process

Contact Information

Currituck County
Planning and Inspections Department
153 Courthouse Road, Suite 110
Currituck, NC 27929

Phone: 252-232-3055

Website: <http://www.currituckcountync.gov/planning-zoning/>

Email: ccpz@currituckcountync.gov

General

Major stormwater plan approval is required for:

- Major subdivisions.
- Major site plans - development or expansion on a nonresidential, multi-family, or mixed use lot by 5,000 square feet or more of impervious coverage or resulting in 10% or more total impervious coverage.

Step 1: Application Submittal

The applicant must submit a complete application packet consisting of the following:

Submitted on a USB flash drive or a compact disc (CD):

- Completed Currituck County Major Stormwater Plan Form SW-002.
- Completed Rational Method Form SW-003 or NRCS Method Form SW-004.
- Stormwater management plan drawn to scale. The plan shall include the items listed in the major stormwater plan design standards checklist.
- Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable.
- NCDENR permit applications, if applicable.
- Stormwater Review Fee (see fee schedule)

On receiving an application, staff shall determine whether the application is complete or incomplete. A complete application contains all the information and materials listed above and is in sufficient detail to evaluate and determine whether it complies with appropriate review standards. An application for major stormwater plan must be submitted and approved prior altering an existing drainage system, performing any land disturbing activity or, before construction documents are approved.

Step 2: Staff Review and Action

Once an application is determined complete staff shall approve, approve subject to conditions or disapprove the application.



Major Stormwater Plan Form SW-002

OFFICIAL USE ONLY:
 Permit Number: _____
 Date Filed: _____
 Date Approved: _____

Contact Information

APPLICANT:

Name: Currituck County
 Address: 153 Courthouse Road, Suite 204
Currituck, NC 27929
 Telephone: 252-232-2075
 E-Mail Address: Rebecca.Gay@currituckcountync.gov

PROPERTY OWNER:

Name: Currituck County
 Address: 153 Courthouse Road, Suite 302
Currituck, NC 27929
 Telephone: 252-232-2075
 E-Mail Address: Rebecca.Gay@currituckcountync.gov

Property Information

Physical Street Address: 468 Ocean Trail, Corolla, NC 27927
 Parcel Identification Number(s): 012700000060000
 FEMA Flood Zone Designation: X

Request

Project Description: Construction of a new warehouse and widening of the existing driveway.
 Total land disturbance activity: 40,769 sf Calculated volume of BMPs: 0 sf
 Maximum lot coverage: 25,433 sf Proposed lot coverage: 25,433 sf

TYPE OF REQUEST

- Major subdivision (10-year, 24-hour rate)
- Major site plan (5-year, 24-hour rate)

This site is exempt from pre/post control due to an increase in impervious area that is less than 5,000 sf.

METHOD USED TO CALCULATE PEAK DISCHARGE

- Rational Method
- NRCS Method (TR-55 and TR-20)
- Simple volume calculation for small sites (less than 10 acres)
- Alternative stormwater runoff storage analysis
- Downstream drainage capacity analysis

I hereby authorize county officials to enter my property for the purpose of determining compliance. All information submitted and required as part of this process shall become public record.

 Applicant
Rebecca Gay
 Property Owner(s)

 Date
5/20/2026
 Date

***NOTE:** Form must be signed by the owner(s) of record, contract purchaser(s), or other person(s) having a recognized property interest. If there are multiple property owners/applicants a signature is required for each.

Major Stormwater Plan Design Standards Checklist

The table below depicts the design standards of the major stormwater plan application. Please make sure to include all applicable listed items to ensure all appropriate standards are reviewed.

Major Stormwater Plan Design Standards Checklist

Date Received: _____

Project Name: Southern Outer Banks Water System at Pine Island

Applicant/Property Owner: Rebecca Gay / Currituck County

Minor Stormwater Plan Design Standards Checklist		
General		
1	Property owner name and address.	<input checked="" type="checkbox"/>
2	Site address and parcel identification number.	<input checked="" type="checkbox"/>
3	North arrow and scale to be 1" = 100' or larger.	<input checked="" type="checkbox"/>
Site Features		
4	Scaled drawing showing existing and proposed site features: Property lines with dimensions, acreage, streets, easements, structures (dimensions and square footage), fences, bulkheads, septic area (active and repair), utilities, vehicular use areas, driveways, and sidewalks.	<input checked="" type="checkbox"/>
5	Approximate location of all designated Areas of Environmental Concern (AEC) or other such areas which are environmentally sensitive on the property, such as Maritime Forest, CAMA, 404, or 401 wetlands as defined by the appropriate agency.	N/A
6	Existing and proposed ground elevations shown in one foot intervals. All elevation changes within the past six months shall be shown on the plan.	<input checked="" type="checkbox"/>
8	Limits of all proposed fill, including the toe of fill slope and purpose of fill.	<input checked="" type="checkbox"/>
9	Square footage of all existing and proposed impervious areas (structures, sidewalks, walkways, vehicular use areas regardless of surface material), including a description of surface materials.	<input checked="" type="checkbox"/>
10	Existing and proposed drainage patterns, including direction of flow.	<input checked="" type="checkbox"/>
11	Location, capacity, design plans (detention, retention, infiltration), and design discharge of existing and proposed stormwater management features.	N/A
12	Elevation of the seasonal high water level as determined by a licensed soil scientist.	N/A
13	Plant selection.	<input checked="" type="checkbox"/>
Permits and Other Documentation		
14	NCDENR stormwater permit application (if 10,000sf or more of built upon area).	N/A
15	NCDENR erosion and sedimentation control permit application (if one acre or more of land disturbance).	N/A
16	NCDENR coastal area management act permit application, if applicable.	N/A
17	Stormwater management narrative with supporting calculations.	N/A
18	Rational Method Form SW-003 or NRCS Method Form SW-004	N/A
19	Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable	N/A
20	Design spreadsheets for all BMPs (<i>Appendix F – Currituck County Stormwater Manual</i>).	N/A
21	Detailed maintenance plan for all proposed BMPs.	N/A

Certificate

22 The major stormwater plan shall contain the following certificate:

I, Rebecca Gay, owner/agent hereby certify the information included on this and attached pages is true and correct to the best of my knowledge.

On the plan entitled Southern Outer Banks Water System at Pine Island Gradin, stormwater drainage improvements shall be installed according to these plans and specifications and approved by Currituck County. Yearly inspections are required as part of the stormwater plan. The owner is responsible for all maintenance required. Currituck County assumes no responsibility for the design, maintenance, or performance of the stormwater improvements.

Date: _____ Owner/Agent: _____

Major Stormwater Plan Submittal Checklist

Staff will use the following checklist to determine the completeness of your application. Please make sure all the listed items are included. Staff shall not process an application for further review until it is determined to be complete.

Major Stormwater Plan Form SW-002 Submittal Checklist

Date Received: _____

Project Name: Southern Outer Banks Water System at Pine Island

Applicant/Property Owner: Rebecca Gay / Currituck County

Major Stormwater Plan Form SW-002 Submittal Checklist – Documents provided on USB flash drive or CD

1	Completed Major Stormwater Plan Form SW-002	<input type="checkbox"/>	<input type="checkbox"/>
2	Completed Rational Method Form SW-003 or NRCS Method Form SW-004	<input type="checkbox"/>	<input type="checkbox"/>
3	Stormwater plan	<input type="checkbox"/>	<input type="checkbox"/>
4	NCDENR permit applications, if applicable	<input type="checkbox"/>	<input type="checkbox"/>

Comments

**SOUTHERN OUTER BANKS WATER SYSTEM
AT PINE ISLAND
POPLAR BRANCH TOWNSHIP, CURRITUCK COUNTY, NORTH CAROLINA**

DRAINAGE NARRATIVE

MAY 12, 2026

PREPARED BY:



TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

1805 West City Drive, Unit E
Elizabeth City, NC 27909
252.621.5030
License No. C-1652
www.timmons.com

Southern Outer Banks Water System at Pine Island - Drainage Narrative

Currituck County is proposing to construct a new major utility facility on 2.16 acres they currently own. The site is an existing water treatment plant with pumps and water tanks located in Corolla in Currituck County. The site is bounded on the north, east, and south by wooded land and on the south by Highway 12 (Ocean Trail). The site will be connected to existing county water and sewer already on site.

Existing on-site coverage includes 7,334 sf of building, 734 sf of concrete, and 14,028 sf of gravel. The total existing amount of impervious coverage is 22,096 sf or 23.46% of the site. Site demolition will include the removal of the 3,645 sf of building and associated water tanks, pump house, generator, surrounding concrete, and 5,626 sf of gravel drive.

Site development will include construction of the new building, permeable parking lot, concrete drive aisle, and water and sewer utility connections. The proposed coverage includes 4,115 sf of roof and 10,052 sf of concrete drive aisle and sidewalk. There will be 1,158 sf of concrete offsite and 10,108 sf of existing impervious coverage to remain. Total proposed coverage is 25,433 sf or 27.01% of the site. The total increase in coverage for the site is 3,337 sf.

Runoff from all impervious surfaces will sheet flow and infiltrate to the surrounding wooded area.

The disturbed area for the entire project will not exceed 0.94 acres. Standard erosion control measures such as a temporary gravel construction entrance, silt fence, and tree protection are shown on the plans and in details. The stormwater pond will be used as a skimmer basin during construction and will be restored to stormwater design conditions upon substantial stabilization of the site.

FIRE & RESCUE**ISO Fire Flow Worksheet****Needed Fire Flow Work Sheet (ISO formulas)**

$$NFF = (Ci)(Oi)(Xi+Pi)$$

$$C=18F(Ai)^{0.5}$$

Address:	468 Ocean Trail Road, Corolla, NC		
Project Name:	Southern Outer Banks Building @ Pine Island	Occupancy Type:	Storage/Office
Const. Type:	VB	Number of Stories:	1 w/Mezzanine

STEP 1

Take the area, which is 100% sq. ft. of the first floor plus the following percentage of the total area of the other floors.

First Floor Area in Sq. Ft Sq. Ft. @ 100%

Additional Floors

Enter total area in sq. ft for all other floors

Total Area Entire Building

STEP 2

F = Coefficient related to the class of construction as determined by using the construction type found in SBCCI

Construction Type	Class	F Value
Frame	1	1.5
Joist Masonry	2	1
Non-combustible	3	0.8
Heavy Timber	4	0.8
Modified fire resistance	5	0.6
Fire resistive	6	0.6

Construction Class

Square Root of the Area x F x 18 = C Value

ISO Fire Flow Worksheet

Needed Fire Flow Work Sheet (ISO formulas)

STEP 3	Multiply result of rounded off GPM by the Occupancy Factor (Oi)	Occupancy Factor
	Noncombustible (C-1) = No active fuel loads such as storage of asbestos, clay, glass, marble, stone, or metal products.	0.75
	Limited - Combustible (C-2) = Limited fuel loads such as airports, apartments, art studios, auto repair, auto showroom, aviaries, banks, barber shops, beauty shops, churches, clubs, cold storage warehouses, day care center, educational occupancies, gas stations, green houses, health clubs, hospitals, jails, libraries, medical labs, motels, museums, nursing homes, offices, radio stations, recreation centers, and rooming houses.	0.85
	Combustible (C-3) = Moderate fuel loads such as auto part stores, auto repair training center, bakery, bookstores, bowling centers, casinos, commercial laundries, contractor equipment storage, dry cleaners with no flammable fluids, leather processing, municipal storage buildings, nursery sales stores, pavilions, pet shops, photographic supplies, printers, restaurants, shoe repair, supermarkets, theaters, vacant buildings, and most wholesale & retail sales occupancies.	1.0
	Free-Burning (C-4) = Active fuel loads such as aircraft hangers, cabinet making, combustible metals, dry cleaners using flammable fluids, feed stores, furniture stores, kennels, lumber, packaging and crating, paper products manufacturing, petroleum bulk distribution centers, tire manufacturers, tire recapping or retreading, wax products, and wood working shops.	1.15
	Rapid-Burning (C-5) = Contents that burn with great intensity, spontaneously ignite, have flammable or explosive vapors, or large quantities of dust such as ammunition, feed mills, fireworks, flammable compressed gases, flammable liquids, flour mills, highly flammable solids, matches, mattress factories, nitrocellulose-based products, rag storage, upholstery shops, & waste paper storage.	1.25
	Occupancy Class Selected (1 thru 5) 3	
	GPM x Oi 1750	

ISO Fire Flow Worksheet

Needed Fire Flow Work Sheet (ISO formulas)

STEP 4

Now consider the exposure factor (Xi) - (Separation between buildings)

Distance (feet to the exposed building)	Xi	>3 stories
0-10	0.22	0.47
11-30	0.18	0.43
31-60	0.13	0.38
61-100	0.09	0.34

Distance, in feet, to the exposed Bldg.

Xi (from table)

Multiply GPM from step 4 by (1+Xi)

Total From Step 4

STEP 5

Approved Fire Sprinkler System? (Y or N)

Take fire flow from step 5 and multiply by sprinkler credit of 0.25

Sprinkler credit

Now subtract sprinkler credit from fire flow in step 4

NEEDED FIRE FLOW

2500 GPM

Please see flow test data done for the proposed Pine Island Distribution Building.

Date	Hydrant ID	911 Address	Static pressure psi	Hydrant residual psi	System residual psi	Hyd. Flow in gpm	Available flow at 20psi	Main size	outlet size	color	Time
2/24/26	PI-26	470 Ocean Trail	58	45	53	1126	3365	10	2.5"	green	11:35 AM

Dave Spence
Utilities Infrastructure Manager
Currituck County
252-232-6035