Stormwater Management Plan
The University of North Carolina at Chapel Hill
NCS000441

April 16, 2025

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PART 1: INTRODUCTION

The purpose of this Stormwater Management Plan (SWMP) is to establish and define the means by which UNC-CH will comply with its National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit and the applicable provisions of the Clean Water Act to meet the federal standard of reducing pollutants in stormwater runoff to the maximum extent practicable.

This SWMP identifies the specific elements and minimum measures that UNC-CH will develop, implement, enforce, evaluate and report to the North Carolina Department of Environmental Quality (NCDEQ) Division of Energy, Minerals and Land Resources (DEMLR) in order to comply with the MS4 Permit number NCS000441, as issued by NCDEQ. This permit covers activities associated with the discharge of stormwater from the MS4 as owned and operated by UNC-CH and located within the property limits of UNC-CH.

In preparing this SWMP, UNC-CH has evaluated its MS4 and the permit requirements to develop a comprehensive 5-year SWMP that will meet the community's needs, address local water quality issues and provide the minimum measures necessary to comply with the permit. The SWMP will be evaluated and updated annually to ensure that the elements and minimum measures it contains continue to adequately provide for permit compliance and the community's needs.

Once the SWMP is approved by NCDEQ, all provisions contained and referenced in this SWMP, along with any approved modifications of the SWMP, are incorporated by reference into the permit and become enforceable parts of the permit. Any major changes to the approved SWMP will require resubmittal, review and approval by NCDEQ, and may require a new public comment period depending on the nature of the changes.

PART 2: CERTIFICATION

By my signature below I hereby certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

I am also aware that the contents of this document shall become an enforceable part of the NPDES MS4 Permit, and that both the Division and the Environmental Protection Agency have NPDES MS4 Permit compliance and enforcement authority.

☐ I am a ranking elected official.

☒ I am a principal executive officer for the permitted MS4.

☐ I am a duly authorized representative for the permitted MS4 and have attached the authorization made in writing by a principal executive officer or ranking elected official which specifies me as (*check one*):

- ☐ A specific individual having overall responsibility for stormwater matters.
- ☐ A specific position having overall responsibility for stormwater matters.

Signature:	Christi Hurt
Print Name:	*Christi Hurt* Christi Hurt
Title:	*Chief of Staff to the Chancellor*
Signed this 4/22 day of 2025 .	

PART 3: MS4 INFORMATION

3.1 Permitted MS4 Area

This SWMP applies throughout the corporate limits of UNC-CH, including all regulated activities associated with the discharge of stormwater from the MS4. The maps in Appendix A show the property limits of UNC-CH as of the date of this document. UNC-CH properties covered under this MS4 Permit are in Orange, Durham, Chatham, and Carteret Counties.

3.2 Existing MS4 Mapping

The current MS4 mapping includes pipes, flow direction, inverts, ditches, inlets, catch basins, manholes, outfalls, sizes, conditions, SCMs, and hydrology.

The link for UNC-CH's MS4 mapping is provided below. For security purposes, this link is not public and can only be accessed by University employees. UNC-CH can provide a hard copy of the map upon NCDEQ's request.
https://www.arcgis.com/apps/webappviewer/index.html?id=d1ee6454cfd24becb852dd152f696864

Table 1: Summary of Current MS4 Mapping

Percent of MS4 Area Mapped	99	%
No. of Major Outfalls* Mapped	6	total

**An outfall is a point where the MS4 discharges from a pipe or other conveyance (e.g. a ditch) directly into surface waters. Major outfalls are required to be mapped to meet permit requirements. A major outfall is a 36-inch diameter pipe or discharge from a drainage area > 50-acres; and for industrial zoned areas a 12-inch diameter pipe or a drainage area ≥ 2-acres.*

3.3 Receiving Waters

The UNC-CH MS4 is located within the Cape Fear River Basin and the White Oak River Basin and discharges directly into receiving waters as listed in Table 2 below. Applicable water quality standards listed below are compiled from the following NCDEQ sources:

- Waterbody Classification Map
- Impaired Waters and TMDL Map
- Most recent NCDEQ Final 303(d) List

Table 2: Summary of MS4 Receiving Waters

Receiving Water Name	Stream Index / AU Number	Water Quality Classification	303(d) Listed Parameter(s) of Interest
Morgan Creek (University Lake)	16-41-2-(1.5)	WS-II; HWQ; NSW	Non-point
Phils Creek	16-41-2-2(0.7)	WS-II; HWQ; NSW	Not Known
Price Creek	16-41-2-4	WS-II; HWQ; NSW	Not Known
Pritchards Mill Creek	16-41-2-3(2)	WS-II; HWQ; NSW	Not Known
Chapel Creek	16-41-2-8	WS-IV; NSW	Urban, Non-point
Meeting of the Waters	16-41-2-7	WS-IV; NSW	Habitat Degradation from Urban run-off, University, Hospital, Stadium Non-Point Source
Morgan Creek (from Dam to SR 1919)	16-41-2-(5)	WS-IV; NSW	Habitat Degradation from Point and Urban Non-point Source
Battle Branch (Tributary to Bolin Creek)	Not Numbered	None	Urban Non-Point
Bolin Creek (from Source to 15-501)	16-41-1-15-1(0.5)	WS-IV; NSW	Urban Non-Point
Bolin Creek (US 15-501 Bus. to Little Creek)	16-41-1-15-1-(4)	WS-IV; NSW	Habitat Degradation from Urban Non-point Source
Booker Creek (from US Hwy. 15 to Little Creek)	16-41-1-15-25)	WS-IV; NSW	Urban Non-point
Crow Branch	16-41-1-15-2-2	B; NSW	Urban Non-Point
Jolly Branch	16-41-1-15-1-1-1-2	C; NSW	Urban Non-Point
Little Creek	16-41-1-15-(0.5)	WS-IV; NSW	Habitat Degradation from Urban Non-point Source
Tarbark Branch	16-41-1-15-1-1-3	C; NSW	Urban Non-Point
Haven Creek	Not Numbered	None	Not Known
Wilson Creek	16-41-2.6	WS-IV; NSW	Not Known
Collins Creek	16-30-(0.5)	WSV; NSW	Not Known
Bogue Sound	20-36-(8.5) a2	SA; HQW	Fecal Coliform

3.4 MS4 Interconnection

The UNC-CH MS4 is interconnected with another regulated MS4 and directly receives stormwater from the Town of Chapel Hill (ToCH) MS4. The number of interconnections entering the UNC-CH MS4 from the ToCH is two, as determined by points where a UNC-CH storm system conveyance (pipe or ditch) of a major outfall size (pipe greater than or equal or 36 inches or discharge area (DA) greater than or equal to 50 acres) directly connects to the stormwater system of the ToCH. This does not include places where streams cross from UNC-CH property to another jurisdiction. It does not include sheet flow where the acreage is less than 50 acres. It does not include conveyances (pipes or ditches) that are less than 36 inches in diameter or that convey DA of less than 50 acres.

The same criteria were used to examine discharge from other jurisdictions to UNC-CH. There are none of those transitions.

The UNC-CH stormwater database was used to make those determinations. \\facdraw\gis\Stormwater\GIS\Projects\NPDESdocumentation . This link can only be accessed by UNC-CH personnel, and a copy of the data can be made available upon request.

The MS4 does not interconnect with the statewide NCDOT MS4.

3.5 Total Maximum Daily Loads (TMDLs)

The TMDL(s) listed in Table 3 below have been approved within the MS4 area, as determined by the map and list provided on the NCDEQ Modeling & Assessment Unit web page. The table also indicates whether the approved TMDL has a specific stormwater Waste Load Allocation (WLA) for any watershed directly receiving discharges from the permitted MS4, and whether a Water Quality Recovery Program has been implemented to address the WLA.

Table 3: Summary of Approved TMDLs

Water Body Name	TMDL Pollutant(s) of Concern	Stormwater Waste Load Allocation (Y/N)	Water Quality Recovery Program (Y/N)
Upper New Hope Arm of Jordan Lake	Total Phosphorus (TP), 5% reduction and Total Nitrogen (TN) 35% reduction	Y	Y
Haw River Arm of Jordan Lake	TP 5% reduction and TP 8% reduction	Y	Y

The University goes through master planning on a regular basis to ensure that future, and in some cases past, University development projects implement stormwater control measures to reduce impacts to stream quality. The University seeks opportunities to construct stormwater control measure retrofits.

3.6 Endangered and Threatened Species and Critical Habitat

Significant populations of threatened or endangered species and/or critical habitat are not identified within the regulated MS4 urbanized area. Based upon a review of the Endangered and Threatened Species and Species of Concern by County for North Carolina Map and Listed species believed to or known to occur in North Carolina map as provided by the U.S. Fish and Wildlife Service, the species listed in Table 4 have the potential to occur within the regulated MS4 urbanized area. Of those species listed, Table 4 summarizes the species that may be significantly impacted by the quality of surface waters within their habitat.

Table 4: Potential Federally Listed Species/Habitat Impacted by Surface Water Quality

Scientific Name	Common name	Species Group	Federal Listing Status
Shortnose sturgeon	Shortnose sturgeon	Vertebrate	E
Notropis mekistocholas	Cape Fear shiner	Vertebrate	E
Fusconaia masoni	Atlantic pigtoe	Invertebrate	T
Alasmidonta varicosa	Brook floater	Invertebrate	ARS
Lasmigona subviridis	Green floater	Invertebrate	ARS
Toxolasma pullus	Savannah lilliput	Invertebrate	ARS
Gomphus septima	Septima's clubtail	Invertebrate	ARS

3.7 Industrial Facility Discharges

The UNC-CH MS4 jurisdictional area includes the following industrial facilities which hold NPDES Industrial Stormwater Permits, as determined from the NCDEQ Maps & Permit Data web page.

Table 5: NPDES Stormwater Permitted Industrial Facilities

Permit Number	Facility Name
NCS000201	UNC-CH Hazardous Materials Facility
NC0025305	UNC Cogeneration Facility *Note: This permit authorizes the UNC Cogeneration Facility to discharge wastewater and stormwater to receiving surface waters.*

3.8 Non-Stormwater Discharges

The water quality impacts of non-stormwater discharges have been evaluated by UNC-CH as summarized in Table 6 below. The unpermitted non-stormwater flows listed as incidental do not significantly impact water quality.

UNC- CH does not allow charity car washing or third-party commercial car washing on its property. Wash water associated with car washing on the UNC-CH campus is not allowed to be discharged to stormwater. UNC-CH owned vehicles are washed at the UNC-CH Service Station car wash facility, which is connected to an oil water separator and the sanitary sewer.

Street washing discharges are addressed under the Pavement Management Program in Part 10 of this SWMP. UNC-CH does street sweeping to reduce water quality impacts from street runoff. No detergents are used during street sweeping at UNC-CH.

The Division has not required that other non-stormwater flows be specifically controlled by the UNC-CH.

Non-stormwater discharges that contain detergents may significantly impact water quality. UNC-CH does not allow any type of discharge to the stormwater system that contains detergents.

Table 6: Non-Stormwater Discharges

Non-Stormwater Discharge	Water Quality Impacts
Water line and fire hydrant flushing	Incidental
Reclaimed Water Line Flushing	Incidental
Landscape irrigation	Incidental
Diverted stream flows	Incidental
Rising groundwater	Incidental
Uncontaminated groundwater infiltration	Incidental
Uncontaminated pumped groundwater	Incidental
Uncontaminated potable water sources	Incidental
Foundation drains	Incidental
Air conditioning condensate	Incidental
Irrigation waters, including but not limited to reclaimed water and air conditioner condensate	Incidental
Springs	Incidental
Water from crawl space pumps	Incidental
Footing drains	Incidental
Lawn watering	Incidental
Residential and charity car washing	**Prohibited at UNC-CH**
Flows from riparian habitats and wetlands	Incidental
Dechlorinated swimming pool discharges	Incidental
Street wash water	**Possible**
Flows from firefighting activities	Incidental
Flows from routine drainage of fire sprinkler systems	Incidental

3.9 Target Pollutants and Sources

In addition to those target pollutants identified above, UNC-CH is aware of other significant water quality issues within the permitted MS4 area that are listed below in Table 7. The majority of pollutants found on campus are litter, sediment, and operations and maintenance chemicals. These are identified by stream monitoring and by observing campus activities.

Litter is typically not a significant problem on campus, as UNC-CH provides and maintains trash and recycling receptables throughout campus, and the Facilities Grounds crew is tasked with picking up litter on campus. However, special events such as student festivals, tailgating prior to Athletics events, and construction projects contribute to additional litter being transported from parking lots to the outfalls, and the streams located closer to busy roads collect more litter than the streams located in wooded and landscaped areas inside campus.

Sediment is the most frequent pollutant appearing in campus creeks. The University hosts construction projects nearly continuously, ranging from small projects like utility maintenance to large projects such as building demolition and construction. Although the State has jurisdiction over UNC-CH's erosion and sediment control (ESC) program, UNC-CH incorporates a robust erosion control compliance program, starting with ESC plan approval and continuing with contractor education and regular site inspections during construction. However, occasional releases of turbid water enter surface waters from construction site runoff or when contractors use incorrect dewatering procedures.

Operations and maintenance chemicals include vehicle fluids, runoff from pressure-washing, and spills or releases from chemical products used outdoors such as paint or masonry slurry. Campus visitors and State vehicles can contribute to the release of vehicle fluids into the environment. While UNC-CH has strict requirements surrounding the use of chemicals for pressure-washing, and project managers are educated on these requirements prior to known activities, occasionally a smaller operation on campus will coordinate pressure-washing without following the correct approvals, at which point we may discover the IDDE when the runoff discharges from the outfalls. Staff and contractors are trained to not pour maintenance chemicals into storm drains, therefore the main risk of pollutants discharging into the environment is from accidental releases.

Table 7 below summarizes the water quality pollutants identified throughout Part 3 of this SWMP, the likely activities/sources/targeted audiences attributed to each pollutant and identifies the associated SWMP program(s) that address each.

Table 7: Summary of Target Pollutants and Sources

Target Pollutant(s)	Likely Source(s)/Target Audience(s)	SWMP Program Addressing Target Pollutant(s)/Audience(s)
Litter	Employees, Students, Contractors, Visitors	Public Education & Outreach
Sediment	Employees, Contractors	Public Education & Outreach, Sediment and Erosion Control Program
Operations & Maintenance Chemicals	Employees, Visitors, Contractors	Public Education & Outreach, Illicit Discharge Detection & Elimination Program

PART 4: STORMWATER MANAGEMENT PROGRAM ADMINISTRATION

4.1 Organizational Structure

The Responsible Official for environmental permits for UNC-CH is Christi Hurt, the Chief of Staff to the Chancellor. The components of the stormwater program are spread among three UNC-CH departments: Environment, Health and Safety, Energy Services, and Grounds Services. In addition, NC DEMLR is responsible for the Construction Site Runoff Control component.

The organizational chart is provided in Appendix B.

Table 8: Summary of Responsible Parties

SWMP Component	Responsible Position	Staff Name	Department
Stormwater Program Administration	Environmental Compliance Officer	Position Vacant, duties covered by Janet Clarke	UNC-CH Environment, Health and Safety (EHS)
SWMP Management	Environmental Compliance Officer	Position Vacant, duties covered by Janet Clarke	EHS
Public Education & Outreach	Stormwater Specialist	Stephanie Grubbs	EHS
Public Involvement & Participation	Stormwater Specialist	Stephanie Grubbs	EHS
Illicit Discharge Detection & Elimination	Stormwater Specialist	Stephanie Grubbs	EHS
Construction Site Runoff Control	NCDEQ, DEMLR Land Quality Section	DEMLR Inspectors	NCDEQ
Post-Construction Stormwater Management	Water Resources Manager	Jamie Smedsmo	UNC-CH Energy Services (ENS)
Pollution Prevention/Good Housekeeping for Municipal Operations	Environmental Compliance Officer	Position Vacant, duties covered by Janet Clarke	EHS
Municipal Facilities Operation & Maintenance Program	Stormwater Supervisor	Robert Bradley	UNC-CH Grounds Services (Grounds)
Spill Response Program	Fire Safety Manager	Adam Swift	EHS

MS4 Operation & Maintenance Program	Stormwater Supervisor	Robert Bradley	Grounds
Municipal SCM Operation & Maintenance Program	Stormwater Supervisor	Robert Bradley	Grounds
Pesticide, Herbicide & Fertilizer Management Program	Stormwater Specialist	Stephanie Grubbs	EHS
Vehicle & Equipment Cleaning Program	Environmental Compliance Officer	Position Vacant, duties covered by Janet Clarke	EHS
Pavement Management Program	Stormwater Supervisor	Robert Bradley	Grounds
Total Maximum Daily Load (TMDL) Requirements	Water Resources Manager	Jamie Smedsmo	ENS

4.2 Program Funding and Budget

In accordance with the issued permit, UNC-CH shall maintain adequate funding and staffing to implement and manage the provisions of the SWMP and comply with the requirements of the NPDES MS4 Permit. The budget includes the permit administering and compliance fee, which is billed by the Division annually.

UNC-CH's stormwater program is funded by three different funding sources, as listed below:

1. Stormwater utility fees based on impervious areas of UNC-CH property
2. Water/Sewer markup on water, irrigation, and sewer bills
3. Occasional one-time project funding

The funding is adequate for implementation of this SWMP and for compliance with the MS4 permit. The above funding sources are adequate for funding personnel, equipment, supplies, training and some stormwater related repairs and retrofits. The budget for 2024-25, including the stormwater utility fee and additional staff funding from the Water/Wastewater markup, is $1,043.000.

There is a significant funding need for major repairs to stormwater infrastructure such as pipes and stormwater control measures. Capacity issues also need to be addressed. The deferred maintenance list includes $23,000,000 for projects that should be addressed in the next 10 years and an additional $29,000,000 for projects to address capacity issues that should be addressed in the long term. Addressing these repairs would require funding though the state appropriation process.

4.3 Shared Responsibility

As indicated in Table 9, UNC-CH is not sharing responsibility (either contractually or through inter-local agreement) for any minimum control measures.

Table 9: Shared Responsibilities

SWMP BMP or Permit Requirement	Implementing Entity & Program Name	Legal Agreement (Y/N)
N/A	N/A	N/A

4.4 Co-Permittees

The are no other entities applying for co-permittee status under the NPDES MS4 permit number NCS000441 for UNC-CH. Table 10 indicates that UNC-CH does not co-permit with another MS4.

Table 10: Co-Permittee Contact Information

Co-Permittee MS4 Name	Contact Person	Phone & E-Mail	Interlocal Agreement (Y/N)
N/A	N/A	N/A	N./A

4.5 Measurable Goals for Program Administration

UNC-CH will manage and report the following Best Management Practices (BMPs) for the administration of the Stormwater Management Program.

Table 11: Program Administration BMPs				
Permit Ref.	**2.1.2 Program Implementation** Measures to evaluate the performance and effectiveness of the SWMP program components at least annually. Results shall be used by the permittee to modify the program components as necessary to accomplish the intent of the Stormwater Program.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
1.	**Annual Self-Assessment**			
	Perform an annual evaluation of SWMP implementation, suitability of SWMP commitments and any proposed changes to the SWMP utilizing the NCDEQ Annual Self-Assessment Template.	1. Prepare, conduct and document an annual evaluation of the program components.	1. Annually Permit Years 1 – 5	1. Yes/No

Table 11: Program Administration BMPs				
2.	**Minimum Control Measures**			
	Written programs will be created to ensure compliance with part 2 of the MS4 Permit. Written programs shall be reviewed on an annual basis and modified if needed to best outline the program and needs of the university.	1. Develop and maintain written programs for all minimum control measures.	1. Permit Year 1	1. Yes/No
		2. Review written programs and modify/update.	2. Annually	2. Yes/No
3.	**Funding and Staffing**			
	The funding and staffing status of the program will be evaluated by UNC-CH to confirm that the program is meeting permit requirements.	1. Review and analyze the current funding and staffing of the program.	1. Annually	1. Adequate/Inadequate
4.	**Website**			
	Maintain a UNC Stormwater website within the EHS Department website. The website will have a link to the current MS4 Permit and to each of the following sections: Stormwater Program, Projects, Stormwater Education, Pollution Prevention, Design Requirements, and Report a Stormwater Problem.	1. Promote and maintain an internet website.	1. Ongoing	1. Yes/No/Partial
		2. Evaluate and confirm functionality by verifying links.	2. Annually	2. Yes/No/Partial
		3. Confirm that the current MS4 Permit and the 6 sections are still posted to the website.	3. Annually	3. Yes/No/Partial
		4. Count number of contacts through “Report a Stormwater Problem” link.	4. Annually	4. Number of forms submitted through “Report a Stormwater Problem” form.
5.	**Hotline**			
	Promote and maintain a stormwater hotline for the public to request information about stormwater, public participation and involvement, and to report illicit discharges and illicit connections.	1. Promote and maintain a stormwater hotline.	1. Ongoing	1. Yes/No
		2. Check the website for functionality of online submittal forms and that contact information is current.	2. Annually	2. Yes/No
		3. Run Hasmis report to count number of hotline calls received.	3.Annually	3. Number of illicit discharges reported to the EHS hotline.
		4. Run Hasmis report to count the number of actions taken aa a result of hotline calls.	4. Annually	4. Number of illicit discharges investigated due to hotline calls.

6.	**SWMP Public Review and Comment**			
	Make the most recent Stormwater Management Plan (SWMP) available for public review and comment by posting to the EHS stormwater website. Include a link to the stormwater@unc.edu email address to allow for public review and comment.	1. Confirm that the current SWMP is added to the website.	1. Annually	1. Yes/No
		2. Check email link for functionality.	2. Annually	2. Yes/No
Permit Ref.	**1.6: Permit Renewal Application** Measures to submit a permit renewal application no later than 180 days prior to the expiration date of the NPDES MS4 permit.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
7.	**Permit Renewal Application**			
	Submit a permit renewal application and Draft SWMP no later than 180 prior to permit expiration.	1. Certify the stormwater permit renewal application (Permit renewal application form and Draft SWMP for the next 5-year permit cycle) and submit to NCDEQ at least 180 days prior to permit expiration.	1. Permit Year 5	1. Date of permit renewal application submittal

PART 5: PUBLIC EDUCATION AND OUTREACH PROGRAM

UNC-CH will implement a Public Education and Outreach Program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and steps the public can take to reduce pollutants in storm water runoff.

The target audiences and identified pollutants listed in Part 3.9 of this SWMP, which will be addressed by the Public Education and Outreach Program, are summarized in Table 12 below. In addition, UNC-CH is required to educate students, employees, visitors, and contractors of the hazards associated with illicit discharges, illegal dumping and improper disposal of waste.

Table 12: Summary of Target Pollutants & Audiences

Target Pollutants/Sources	Target Audience(s)
Litter	Employees, Students, Contractors
Sediment runoff/construction sites	Employees, Contractors
Operations and maintenance/illicit discharges	Employees, Contractors

UNC-CH will manage, implement and report the following public education and outreach BMPs.

Table 13: Public Education and Outreach BMPs

Permit Ref.	**3.2.2 and 3.2.4: Outreach to Targeted Audiences** Measures to identify the specific elements and implementation of a Public Education and Outreach Program to share educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and how the public can reduce pollutants in stormwater runoff. The permittee shall provide educational information to identified target audiences on pollutants/sources identified in table 12 above, and shall document the extent of exposure of each media, event or activity, including those elements implemented locally or through a cooperative agreement.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
8.	**Identify Target Pollutants, Sources and Audiences**			
	Describe the target pollutants, target pollutant sources and audiences that UNC-CH's public education program is designed to address and why these pollutants and audiences are of concern.	1. Review and update Table 12 for target pollutant sources.	1. Permit Years 1 and 3	1. Yes/No/Partial
		2. Review and update Table 12 for target audiences.	2. Permit Years 1 and 3	2. Yes/No/Partial
9.	**Distribute Public Education Materials**			
	Distribute general stormwater educational material to staff, students, contractors, and visitors who are likely to have a significant stormwater impact.	1. Distribute public education materials to identified target groups during at least 4 events per year.	1. Ongoing	1. Number of contact hours
10.	**Preconstruction Education on Construction Stormwater Requirements**			
	EHS will distribute educational materials on construction site stormwater requirements to UNC project managers, design professionals, and contractors.	1. Verify that EHS stormwater website contains construction site stormwater requirements	1. Annually	1. Yes/No/Partial
		2. Distribute construction stormwater guidance to UNC project managers during the construction site planning process.	2. Ongoing	2. Number of projects \receiving materials on construction stormwater

Permit Ref.	**2.1.7, 3.2.3 and 3.6.5(c): Web Site** Measures to provide a web site designed to convey the program's message(s) and provide online materials including ordinances, or other regulatory mechanisms, or a list identifying the ordinances or other regulatory mechanisms, providing the legal authority necessary to implement and enforce the requirements of the permit and SWMP. The web page shall also provide developers with all relevant post-construction requirements, design standards, checklists and/or other materials.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
11.	**Website Tools: Pollution Prevention Guidance**			

	Post educational materials for students, employees, and contractors on the EHS stormwater website. The guidance can be in the form of Fact Sheets, Standard Operating Procedures (SOPs), Design Requirements, UNC Policies, or other formats that are easy to distribute to target audiences.	1. Review website to ensure that previously posted topics are still available.	1. Annually	1. Yes/No/Partial
		2. Add guidance for newly identified activities with potential surface water impacts.	2. Ongoing	2. Yes/No/Partial
12.	**Website Tools: Special Projects**			
	Post information on the EHS stormwater website about special projects and initiatives coordinated by UNC-CH Stormwater to improve surface water quality on campus.	1. Review website to ensure that special projects are still posted.	1. Annually	1. Yes/No/Partial

PART 6: PUBLIC INVOLVEMENT AND PARTICIPATION PROGRAM

This SWMP identifies the minimum elements and implementation of a Public Involvement and Participation Program that complies with applicable State, Tribal and local public notice requirements. UNC-CH will manage, implement and report the following public involvement and participation BMPs.

Table 14: Public Involvement and Participation BMPs

Permit Ref.	**3.3.2: Volunteer Opportunities** Measures to provide volunteer opportunities designed to promote ongoing citizen participation.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
13.	**Volunteer Stream Cleanups**			
	Include and promote volunteer opportunities as part of UNC-CH's stormwater program to promote ongoing campus community participation.	1. Provide opportunities for various campus groups to participate in stream cleanup events.	1. Ongoing	1. Number of groups expressing interest in stream cleanups.
		2. Coordinate one stream cleanup per year. If no students reach out and follow through with a stream cleanup, EHS will coordinate a staff stream cleanup event.	2. Annually	2. Number of stream cleanup events.
		3. Track number of participants.	3. Annually	3.Total number of volunteers.
		4. Track number of bags of litter collected.	4. Annually	4. Total number of bags of litter collected.

PART 7: ILLICIT DISCHARGE DETECTION AND ELIMINATION PROGRAM

UNC-CH will develop, manage, implement, document, report and enforce an Illicit Discharge Detection and Elimination Program which shall, at a minimum, include the following illicit discharge detection and elimination BMPs.

Table 15: Illicit Discharge Detection and Elimination BMPs

Permit Ref.	**3.4.1: MS4 Map** Measures to develop, update and maintain a municipal storm sewer system map including stormwater conveyances, flow direction, major outfalls and waters of the United States receiving stormwater discharges.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
14.	**Maintain a Storm Sewer System Base Map**			
	Maintain and update storm sewer system map in GIS showing stormwater conveyances, flow direction, major outfalls and receiving streams.	1. Evaluate GIS database for functionality.	1. Annually	1. Yes/No/Partial
		2. Verify that GIS database has been updated as new components are added, removed, or modified.	2. Annually	2. Yes/No/Partial
Permit Ref.	**3.4.2: Regulatory Mechanism** Measures to provide an IDDE ordinance or other regulatory mechanism that provides legal authority to prohibit, detect, and eliminate illicit connections and discharges, illegal dumping and spills into the MS4, including enforcement procedures and actions.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
15.	**Illicit Discharge Detection and Elimination Policy**			
	Maintain an Illicit Discharge Detection and Elimination (IDDE) Policy to address illicit discharges, allowed discharges, illicit connections, enforcement and penalties, outfall inspection and sampling, and training.	1. Verify that IDDE policy is posted to the EHS stormwater website.	1. Annually	1. Yes/No
		2. Review list of non-stormwater discharges and update if needed.	2. Once per permit cycle.	2. Yes/No/Partial
		3. Review enforcement section to ensure that mechanisms are in place to address violations by all potential target groups, e.g. students, staff, contractors, and visitors.	3. Once per permit cycle	3. Yes/No/Partial

Table 15: Illicit Discharge Detection and Elimination BMPs				
Permit Ref.	**3.4.3: IDDE Plan** Measures to maintain and implement a written IDDE Plan to detect and address illicit discharges, illegal dumping and any non-stormwater discharges identified as significant contributors of pollutants to the MS4. The plan shall provide standard procedures and documentation to: a) Locate priority areas likely to have illicit discharges, b) Conduct routine dry weather outfall inspections, c) Identify illicit discharges and trace sources, d) Eliminate the source(s) of an illicit discharge, and e) Evaluate and assess the IDDE Program.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
16.	**IDDE SOP**			
	Implement and maintain an IDDE SOP which includes procedures for prioritizing areas for inspections, inspection frequency, identifying outfalls for inspection, conducting routine dry weather inspections, sampling, detection and elimination of illicit discharges, spill response, response to illegal dumping, reporting, recordkeeping, and training.	1. Review SOP to ensure all elements are still relevant and update as needed.	1. Once per permit cycle	1. Yes/No/Partial
		2. Inspect major outfalls for water quality once per year. Six (6) outfalls 36"+ diameter discharge to surface water with permanent base flow.	2. Annually	2. Number of outfall inspections
		3. Inspect minor outfalls once per year for water quality (if flow is present) and/or evidence of illicit discharges (flow or no flow). 449 outfalls do not discharge directly to surface water.	3. Annually	3. Number of outfall inspections

Permit Ref.	**3.4.4: IDDE Tracking** Measures for tracking and documenting the date(s) an illicit discharge, illicit connection or illegal dumping were observed, the results of the investigation, any follow-up of the investigation, the date the investigation was closed, the issuance of enforcement actions, and the ability to identify chronic violators.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
17.	**Illicit Discharge Tracking System**			
	Maintain an illicit discharge database tracking system within the UNC-CH EHS Department Hasmis database.	1. Verify that Hasmis database is functional.	1. Annually	1. Yes/No
		2. Review data entry categories and add additional categories if needed.	2. Annually	2. Yes/No/Partial
		3. Run report to count the number of illicit discharges reported.	3. Annually	3. Number of illicit discharges reported.
		4. Run report to count the number of illicit discharges resolved.	4. Annually	4. Number of illicit discharges resolved.
Permit Ref.	**3.4.5: Staff IDDE Training** Measures to provide training for university staff and contractors who, as part of their normal job responsibilities, may observe an illicit discharge, illicit connection, illegal dumping or spills. Training shall include how to identify and report illicit discharges, illicit connections, illegal dumping and spills. Each staff training event shall be documented, including the agenda/materials, date, and number of staff participating.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
18.	**IDDE Training (Stormwater Awareness)**			
	Include IDDE program as one of the sections in the Stormwater Awareness training program. Training materials should include illicit discharges, illicit connections, illegal dumping and spills, and protocol for reporting IDDE concerns.	1. Review EHS training materials to ensure IDDE program elements are included.	1. Annually	1. Yes/No

PART 8: CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

In accordance with 15A NCAC 02H .0153, UNC-CH relies upon the North Carolina Sedimentation Pollution Control Act (SPCA) of 1973 and the NCG010000 permit for construction activities as qualifying alternative programs to meet a portion of the NPDES MS4 Permit requirements for construction site runoff control measures. The SPCA requirements include reducing pollutants in stormwater runoff from construction activities that result in land disturbance of greater than or equal to one acre and include any construction activity that is part of a larger common plan of development that would disturb one acre or more. The state SPCA Program is either delegated to a city/town, delegated to a county, or implemented by NCDEQ in non-delegated areas.

Table 16: Qualifying Alternative Program Components for Construction Site Runoff Control Program

Permit Reference	State or Local Program Name	Legal Authority	Implementing Entity
3.5.1 - 3.5.4	State Implemented SPCA Program	15A NCAC Chapter 04	NCDEQ

UNC-CH also implements the following BMPs to meet NPDES MS4 Permit requirements.

Table 17: Construction Site Runoff Control BMPs

Permit Ref.	**3.5.6: Public Input** Measures to provide and promote a means for the public to notify the appropriate authorities of observed erosion and sedimentation problems.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
19.	**University Staff Training**			
	Include protocol for notifying EHS of construction site runoff control complaints in the following: construction design guidelines, stormwater awareness training, and EHS website.	1. Review EHS website, construction design guidelines, and stormwater awareness training slides for inclusion of notifying EHS of construction sediment concerns.	1. Annually	1. Yes/No/Partial
Permit Ref.	**3.5.5: Waste Management** Measures to require construction site operators to control waste such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste at the construction site that may cause adverse impact to water quality.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
20.	**Construction Site Waste Management**			
		2. Provide factsheet on construction waste management to contactors prior to start of construction (can be separate factsheet or included in ESC documents).	2. Ongoing	2. Number of projects receiving factsheets.

PART 9: POST-CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

This SWMP identifies the minimum elements to develop, implement and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre. These elements are designed to minimize water quality impacts utilizing a combination of structural Stormwater Control Measures (SCMs) and/or non-structural BMPs appropriate for the community, and ensure adequate long-term operation and maintenance of SCMs.

In accordance with 15A NCAC 02H .0153 and .1017, UNC-CH implements the following State post-construction program requirements, which satisfy the NPDES Phase II MS4 post-construction site runoff control requirements as Qualifying Alternative Programs (QAPs) in the MS4 area(s) where they are implemented.

The Jordan Lake Nutrient Strategy for the activities of state entities within the Jordan Lake watershed are implemented on University property in accordance with 15A NCAC 02B .0271 to the extent allowable under State Law.

Table 18: Qualifying Alternative Program(s) for Post-Construction Site Runoff Control Program

State QAP Name	State Requirements	Local Ordinance / Regulatory Mechanism Reference
Jordan Water Supply Nutrient Strategy	15A NCAC 02B .0262	University Design Guidelines

UNC-CH has existing requirements other than Qualifying Alternative Program(s) for implementation of the NPDES Phase II MS4 post-construction program requirements. These existing requirements are codified in local ordinance(s), and implementation is further defined in guidance, manuals and/or standard operating procedure(s) as summarized in Table 19 below.

Table 19: Summary of Existing Post-Construction Program

UNC-CH's stormwater design guidelines reference the statewide Stormwater Design Manual and provide more detailed requirements for implementation. Designers for projects on university-owned land are required, since 2011, to meet the State and Federal Entities New Development rules for Jordan Lake.

SCMs are installed based on requirements from the NPDES permit, the Jordan Lake Rules, the Town of Chapel Hill requirements and the applicable requirements of other local governments

Permit Requirements for **Plan Review and Approval**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(a) Authority	N/A	
3.6.3(a) & 15A NCAC 02H.0153(c) Federal, State & Local Projects	N/A	
3.6.3(b) Plan Review	UNC-CH Stormwater Performance Criteria, Design Standards, and Procedures	8/20/2010 version
3.6.3(c) O&M Agreement	N/A	
3.6.3(d) O&M Plan	UNC-CH Stormwater Infrastructure Inspection and Maintenance Manual	5/3/21 version
3.6.3(e) Deed Restrictions/Covenants	N/A	
3.6.3(f) Access Easements	N/A	
Permit Requirements for **Inspections and Enforcement**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.2(b) Documentation	N/A	
3.6.2(c) Right of Entry	N/A	
3.6.4(a) Pre-CO Inspections	N/A	
3.6.4(b) Compliance with Plans	UNC-CH Stormwater Infrastructure Inspection and Maintenance Manual	5/3/21 version
3.6.4(c) Annual SCM Inspections	UNC-CH Stormwater Infrastructure Inspection and Maintenance Manual	5/3/21 version
3.6.4(d) Low Density Inspections	N/A	
3.6.4(e) Qualified Professional	UNC-CH Stormwater Infrastructure Inspection and Maintenance Manual	5/3/21 version
Permit Requirements for **Fecal Coliform Reduction**	Municipal Ordinance/Code Reference(s) and/or Document Title(s)	Date Adopted
3.6.6(a) Pet Waste	UNC-CH does not currently have Pet Waste Guidelines	
3.6.6(b) On-Site Domestic Wastewater Treatment	UNC-CH does not currently have On-Site Domestic Wastewater Treatment Guidelines	

The annual reporting metrics for the post construction program are provided in Table 20: Post Construction Site Runoff Control BMPs below.

Table 20: Post Construction Site Runoff Control BMPs				
Permit Ref.	**3.6.5(a), 3.6.5(b), and 4.1.3: Minimum Post-Construction Reporting Requirements** Measures to document activities over the course of the fiscal year (July 1 – June 30) including appropriate information to accurately describe progress, status, and results.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
21.	**Standard Reporting**			
	Implement standardized tracking, documentation, inspections and reporting mechanisms to compile appropriate data for the annual self-assessment process. Data shall be provided for each Post-Construction/ Qualifying Alternative Program being implemented as listed in Tables 18 and 19.	1. Track number of plan reviews performed.	1. Ongoing	1. Number of projects undergoing plan reviews.
		2. Add newly constructed SCMs to the inventory system.	2. Ongoing	2. Number of SCMs added to the inventory.
Permit Ref.	**2.3 and 3.6: Qualifying Alternative Program(s)** Measures to develop, implement and enforce additional BMPs in order to comply with the QAP state program requirements.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
22.	**Jordan Water Supply Nutrient Strategy Implementation**			
	UNC-CH projects on university-owned land are required, since 2011, to meet the State and Federal Entities New Development rules for Jordan Lake.	1. Review projects/plans for compliance with Jordan Rules.	1. Continuously	1. Number of projects undergoing plan reviews.

Permit Ref.	**3.6.2: Legal Authority** Measures to maintain adequate legal authorities through ordinance or other regulatory mechanism to: (a) review designs and proposals for new development and redevelopment to determine whether adequate stormwater control measures will be installed, implemented, and maintained, (b) request information such as stormwater plans, inspection reports, monitoring results, and other information deemed necessary to evaluate compliance with the Post-Construction Stormwater Management Program, and (c) enter private property for the purpose of inspecting at reasonable times any facilities, equipment, practices, or operations related to stormwater discharges to determine whether there is compliance with the Post-Construction Stormwater Management Program.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
23.	**Property Ownership**			
	UNC-CHH or the State of NC owns all property that is subject to the UNC-CH MS4 stormwater permit. UNC-CH has the legal authority to implement the post-construction stormwater management program on these properties. Therefore, this permit requirement is fully met.	1. N/A	1. N/A	1. N/A
Permit Ref.	**3.6.3: Plan Review and Approval** Measures to maintain plan review and approval authority, standards and procedures to: (a) Require Federal, State, and local government projects to comply with Post-Construction Program requirements throughout the entire MS4 permitted area, unless the entity is subject to its own NPDES MS4 permit or a qualifying alternative program, (b) Conduct site plan reviews of all new development and redeveloped sites that disturb greater than or equal to one acre, and sites that disturb less than one acre that are part of a larger common plan of development or sale for compliance with 15A NCAC 02H .1017 and the qualifying alternative programs that apply within your jurisdiction, (c) Ensure that each project has an Operation and Maintenance Agreement that complies with 15A NCAC 02H .1050(12), (d) Ensure that each project has an Operation and Maintenance Plan that complies with 15A NCAC 02H .1050(13), (e) Ensure that each project has recorded deed restrictions and protective covenants, that require the project to be maintained consistent with approved plans, and (f) Ensure that each SCM and associated maintenance accesses be protected in a permanent recorded easement per 15A NCAC 02H 1050 (9) and (10			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**

24.	**Review and Approve of Plans in Compliance with Programs in Tables 18 and 19**			
	This permit requirement is fully met by the existing post-construction programs (see references provided in Table 18 and 19).	1. N/A	1. N/A	1. N/A
Permit Ref.	**3.6.4: Inspections and Enforcement** Measures to maintain inspection and enforcement authority, standards and procedures to: (a) Conduct post-construction inspections prior to issuing a Certificate of Occupancy or a Temporary Certificate of Occupancy. Alternatively, the project owner may provide a surety bond to guarantee compliance with the approved plan(s), (b) Ensure that the project has been constructed in accordance with the approved plan(s), (c) Ensure annual inspection of each permitted SCM to ensure compliance with the approved Operation and Maintenance Agreement, (d) Ensure inspection of low density projects at least once during the permit term, and (e) Require that inspections be conducted by a qualified professional.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
25.	**Perform Field Inspections of Post Construction Site SCMs**			
	Inspect new SCM installations during and prior to closing out construction projects to ensure UNC's performance standards have been met.	1. Inspect SCMs during construction to ensure they are being built correctly.	1. Ongoing	1. Number SCM inspections on construction sites.
		2. Confirm that newly constructed SCMs have been built correctly before projects are closed out.	2. Ongoing	2. Number of projects with SCMs inspected prior to the issuance of As-Builts.
26.	**Review and Update UNC Stormwater Inspection and Maintenance Manual**			
	Review and update UNC Stormwater Inspection and Maintenance Manual.	1. Review Inspection and Maintenance Manual.	1. Permit Year 1	1. Yes/No
		2. Update Manual as needed.	2. Permit Year 1	1. Yes/No
Permit Ref.	**3.6.6: Fecal Coliform Reduction** Measures to control, to the maximum extent practicable, sources of fecal coliform per 15A NCAC 02H .1017(7). At a minimum, the program shall include: (a) A pet waste management component, which may be achieved by revising an existing litter ordinance, and (b) An on-site domestic wastewater treatment system component, if applicable, which may be coordinated with local county health department, to ensure proper operation and maintenance of such systems.			

BMP No.	A	B	C	D
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
27.	**Provide Pet Waste Educational Signs at Campus Trailheads**			
	Provide pet waste management signage at trailheads at the NC Botanical Garden and at Carolina North.	1. Maintain signs at hiking tralheads.	1. Annually	1. Yes/No/Partial
28.	**Coordinate with NCDEQ for On-site Wastewater Treatment Systems**			
	Ensure that on-site wastewater treatment facility or facilities meet(s) NCDEQ requirements for operations and maintenance.	1. Verify number of on-site wastewater treatment systems on university-owned properties.	1. Year 1	1. Number of systems present.
		2. Review the NCDEQ requirements for wastewater treatment plants and verify the UNC system(s) meet(s) State requirements.	2. Years 2-5	2. Yes/No/Partial

PART 10: POLLUTION PREVENTION AND GOOD HOUSEKEEPING PROGRAMS

This SWMP provides a comprehensive pollution prevention and good housekeeping strategy for the UNC-CH municipal facilities and operations. Pollution prevention and good housekeeping is accomplished through the implementation of seven required programs, which collectively address the ultimate goal of preventing or reducing pollutant runoff from municipal operations such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and municipal storm sewer system maintenance.

Pollution prevention and good housekeeping for municipal operations includes the following programs:

1. Municipal Facilities Operation and Maintenance Program
2. Spill Response Program
3. MS4 Operation and Maintenance Program
4. Municipal SCM Operation and Maintenance Program
5. Pesticide, Herbicide and Fertilizer Management Program
6. Vehicle and Equipment Maintenance Program
7. Pavement Management Program

The UNC-CH will manage, implement and report the pollution prevention and good housekeeping BMPs as specified in Table 21 below for each required program.

Table 21: Pollution Prevention and Good Housekeeping BMPs

Permit Ref.	**3.7.1: Municipal Facilities Operation and Maintenance Program** Measures to manage facilities that are owned and operated by the permittee and have the potential for generating polluted stormwater runoff. The permittee shall maintain a current inventory of municipal facilities; perform facility inspections and routine maintenance; establish specific frequencies, schedules, and standard documentation; provide staff training on general stormwater awareness and implementing pollution prevention and good housekeeping practices.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
29.	**Inspect Facilities Services and Athletics Sites That Have Potential to Impact Water Quality**			
	Inspect campus maintenance and operations facilities that have the potential to impact water quality.	1. Develop an inventory of sites with potential to impact water quality.	1. Year 1	1. Number of sites in inventory.
		2. Inspect stand-alone Grounds' sheds.	2. Annually	2. Number of sheds inspected.
		3. Inspect outdoor swimming pool storage rooms/sheds.	3. Annually	3. Number of storage rooms/sheds inspected.
		4. Inspect chemical storage at WWTP facility or facilities.	4. Annually	4. Number of chemical storage sites inspected.
		5. Inspect Athletics' stand-alone storage sheds.	5. Annually	5. Number of sheds inspected.
30.	**Train UNC Personnel in Stormwater Awareness**			
	Provide training in stormwater awareness, pollution prevention, and good housekeeping to employees whose job duties have the potential to impact water quality. Training shall include general stormwater awareness, identification of stormwater pollution potential, appropriate spill response actions and contact information for reporting spill and illicit connections/illegal dumping.	1. Provide stormwater awareness training to Facilities Services.	1. Annually	1. Number of employees receiving training.
		2. Provide stormwater awareness training to Transportation and Parking.	2. Twice per permit cycle	2. Number of employees receiving training.
		3. Provide stormwater awareness training to Athletics.	3. Annually	3. Number of employees receiving training.
		4.Provide stormwater awareness training to EHS.	4.Twice per permit cycle	4. Number of employees receiving training.
		5. Provide stormwater awareness training to Campus Food Services.	5. Twice per permit cycle	5. Number of employees receiving training.

Permit Ref.	**3.7.2: Spill Response Program** Measures for facilities and operations that store and/or use materials that have the potential to contaminate stormwater runoff if spilled. The permittee shall maintain written spill response procedures and train staff on spill response procedures.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
31.	**Spill Response Team**			
	Maintain an EHS-based spill response team.	1. Maintain EHS spill response team.	1. Ongoing	1. Number of EHS employees on team.
		2. Review ER handbook for spill cleanup procedures for outdoor incidents that may impact surface water.	2. Once per permit cycle	2. Yes/No/Partial
32.	**Spill Control and Countermeasure (SPCC) Plan**			
	Maintain and update the SPCC Plan.	1. Maintain SPCC Plan.	1. Ongoing	1. Yes/No
		2. Review to ensure SPCC Plan is current.	2. Once per permit cycle	2. Yes/No/Partial
Permit Ref.	**3.7.3: MS4 Operation and Maintenance Program** Measures to minimize pollutants in the stormwater collection system. The permittee shall provide operation and maintenance staff training on stormwater awareness and pollution prevention, perform MS4 inspections, maintain the collection system including catch basins and conveyances; and establish specific frequencies, schedules, and standard documentation.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
33.	**Visual Inspection of the Storm Sewer System**			
	Perform annual (at a minimum) visual inspections of the storm sewer system components as specified in the UNC Stormwater Inspection and Maintenance Manual.	1. Visually inspect 20 percent of the approximately 5000 inlets and catch basins to evaluate whether cleanout is required and for general structural condition evaluations.	1. Annually	1. Number of inlets and catch basins inspected.
		2. Visually inspect 20 percent of the 449 storm drain outlets for general structural conditions.	2. Annually	2. Number of outfalls inspected.

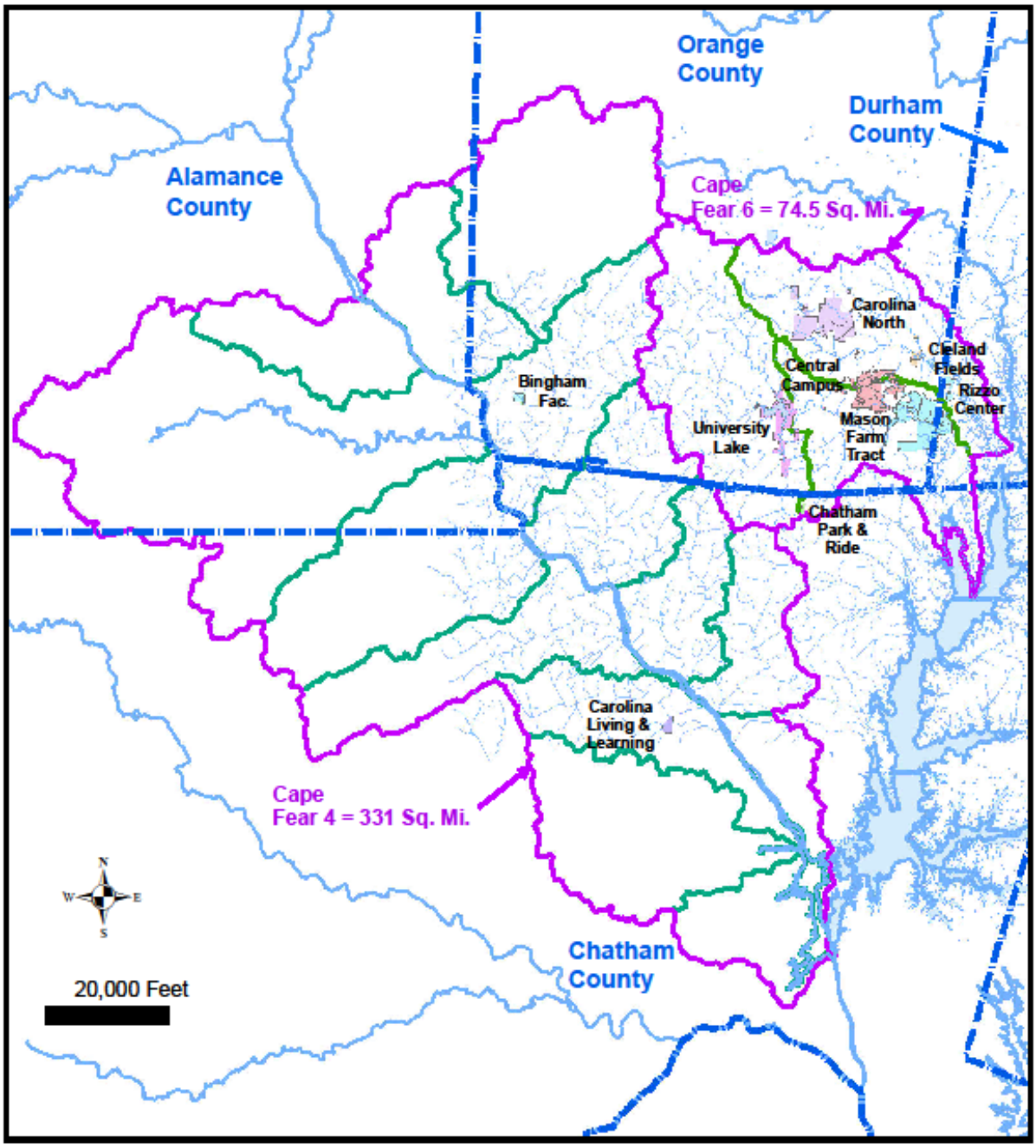
34.	**Storm Sewer System Maintenance**			
	Perform inlet and catch basin cleaning, pipe cleaning, curbside leaf removal, and parking lot and road sweeping, as described in the UNC Stormwater Inspection and Maintenance Manual.	1. Clean out storm drain inlets and catch basins.	1. Ongoing	1. Number of inlets and catch basins cleaned.
		2. Vacuum and/or jet storm pipes.	2. Ongoing	2. Number of vacuuming/jetting activities.
		3. Clean UNC-CH-owned roads and parking lots with street sweeper.	3. Ongoing	3. Number of miles of street-sweeping.
		4. Clean UNC-CH roads and parking lots with street sweeper.	4. Ongoing	4. Tons of material collected.
Permit Ref.	**3.7.4: Municipal SCM Operation and Maintenance Program** Measures to manage municipally-owned, operated, and/or maintained structural stormwater control measures (SCMs) that are installed for compliance with the permittee's post-construction program. The permittee shall maintain a current inventory of SCMs, perform SCM inspections and maintenance, and shall establish specific frequencies, schedules, and documentation.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
35.	**Maintain Inventory of SCMs**			
	UNC-CH owns and operates all SCMs covered by the stormwater permit. Maintain an updated SCM inventory in the campuswide GIS.	1. Add new SCMs to GIS as they are completed.	1. Ongoing	1. Total number of new SCMs added to the inventory.
		2. Verify that the GIS inventory of SCMs includes SCM type, location, and last inspection date.	2. Annually	2. Yes/No/Partial
36.	**Perform SCM Inspections and Maintenance**			
	Perform SCM inspections and maintenance as described in the UNC Stormwater Inspections and Maintenance Manual.	1. Inspect all SCMs (approximately 389 devices).	1. Annually	1. Number of SCMs inspected.
		2. Perform preventive maintenance on SCMs.	2. Annually	2. Yes/No
		3. Track number of maintenance actions on SCMs.	3. Annually	3. Number of maintenance actions.
		4. Grounds employees will maintain current certification from the NCSU Stormwater Control Measure Inspection and Certification Program.	4. Annually	4. Number of Grounds employees with current certifications.

Permit Ref.	**3.7.5: Pesticide, Herbicide and Fertilizer Management Program** Measures to minimize water quality impacts from the use of landscape chemicals. The permittee shall provide routine pollution prevention and chemical use, storage and handling training, and shall ensure compliance with permits and applicator certifications.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
37.	**Stormwater Awareness Training for Use of Landscaping Chemicals**			
	In addition to stormwater awareness and pollution prevention training, Grounds and Athletics employees receive NC Cooperative Extension Jordan Lake Fertilizer Management training to support the Jordan Lake Nutrient Strategy program.	1. EHS provides Jordan Lake Fertilizer Management Training.	1. Twice per permit cycle	1. Number of employees receiving NCDEQ certificate upon completion of training.
38.	**Document Certifications for Pesticide Applicators**			
	Ensure employees follow all requirements related to pesticide applicator certification.	1. Track number of employees with pesticide applicator certification.	1. Annually	1. Number of people with certification.
Permit Ref.	**3.7.6: Vehicle and Equipment Maintenance Program** Measures to prevent and minimize contamination of stormwater runoff from areas used for municipal vehicle and equipment maintenance and/or cleaning. The permittee shall ensure that municipal industrial facilities subject to NPDES industrial permitting comply with those permit requirements, provide routine pollution prevention training to staff, perform routine inspections, and establish specific frequencies, schedules, and documentation.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
39.	**Comply with NPDES Industrial Permit**			
	Maintain compliance with the NPDES permit for the UNC-CH Service Station.	1. Provide training to Service Station employees.	1. Annually	1. Number of employees trained.
		2. Inspect Service Station at the frequency required by NPDES industrial permit.	2. Quarterly	2. Number of inspections completed.

Permit Ref.	**3.7.7: Pavement Management Program** Measures to reduce pollutants in stormwater runoff from university-owned streets, roads, and parking lots within the permittee's corporate limits. The permittee shall implement measures to control litter, leaves, debris, particulate and fluid pollutants associated with vehicles, and establish specific frequencies, schedules, and documentation.			
BMP No.	**A**	**B**	**C**	**D**
	Description of BMP	**Measurable Goal(s)**	**Schedule for Implementation**	**Annual Reporting Metric**
40.	**Parking Lot and Street Sweeping Program**			
	Perform routine sweeping of UNC-CH parking lots and paved roads. Street sweeping will be conducted in accordance with the UNC Stormwater Inspection and Maintenance Manual	1. Track cubic yards of material collected from street sweeping of roads, parking lots, and other paved surfaces as applicable.	1. Ongoing	1. Number of cubic yards of debris collected.
41.	**Clean Up Vehicle Fluid Releases**			
	UNC-EHS Emergency Response Team will respond to reports of vehicle fluids.	1. Clean up vehicle fluid spills.	1. Ongoing	1. Number of vehicle fluid spills cleaned up.

Appendix A:

UNC-CH Property Limits Maps

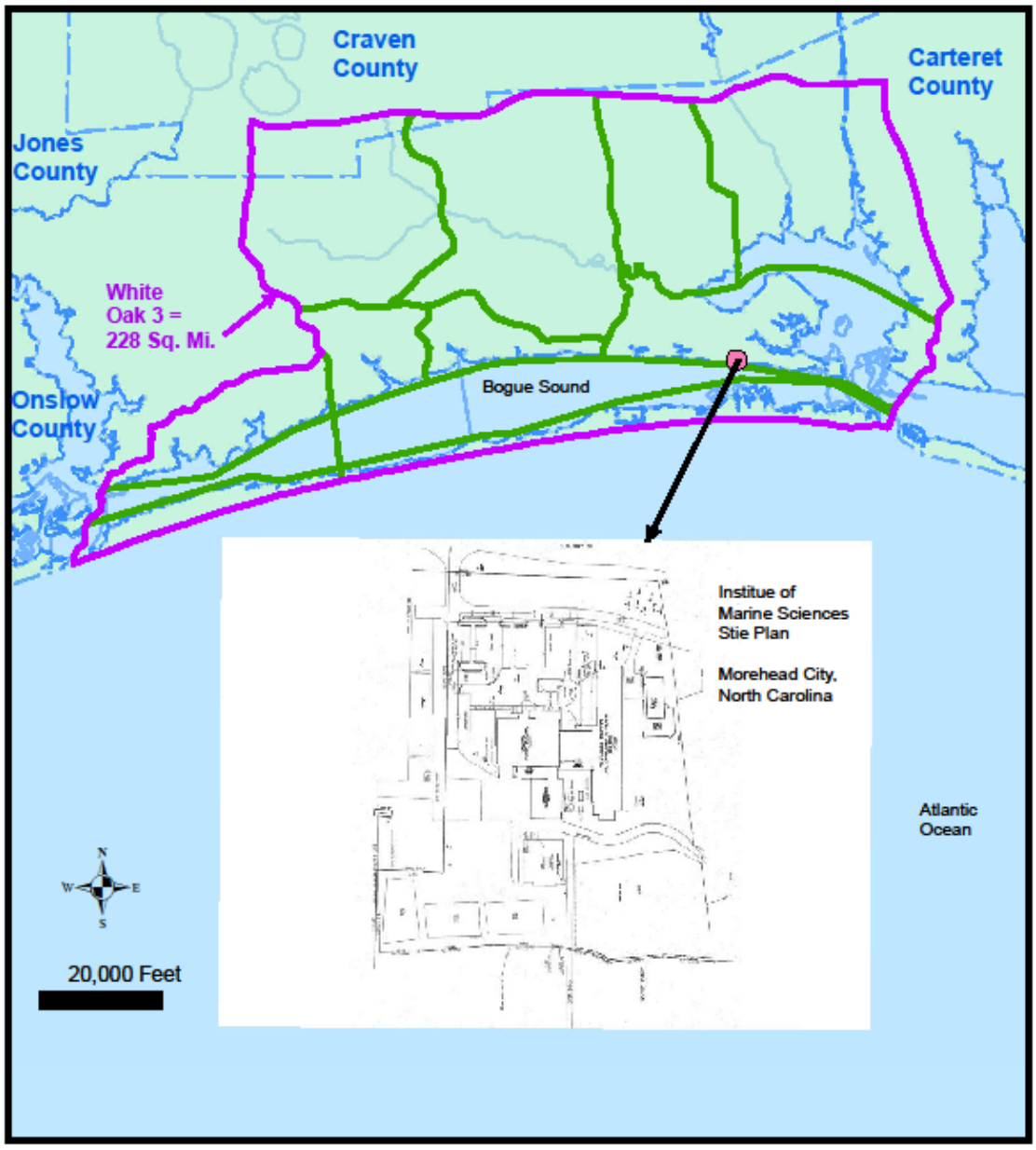


Appendix A - UNC Property within Watersheds

Watershed Outline
County Lines
Subbasins within Watershed
Major streams
Network of Streams around UNC Properties
Bodies of Water

Cape Fear 4: 0.2 Square Miles
Cape Fear 6: 6.3 Square Miles

Total UNC Land Cape Fear Watershed: 6.5 Square Miles



Appendix A - UNC Property within Watersheds

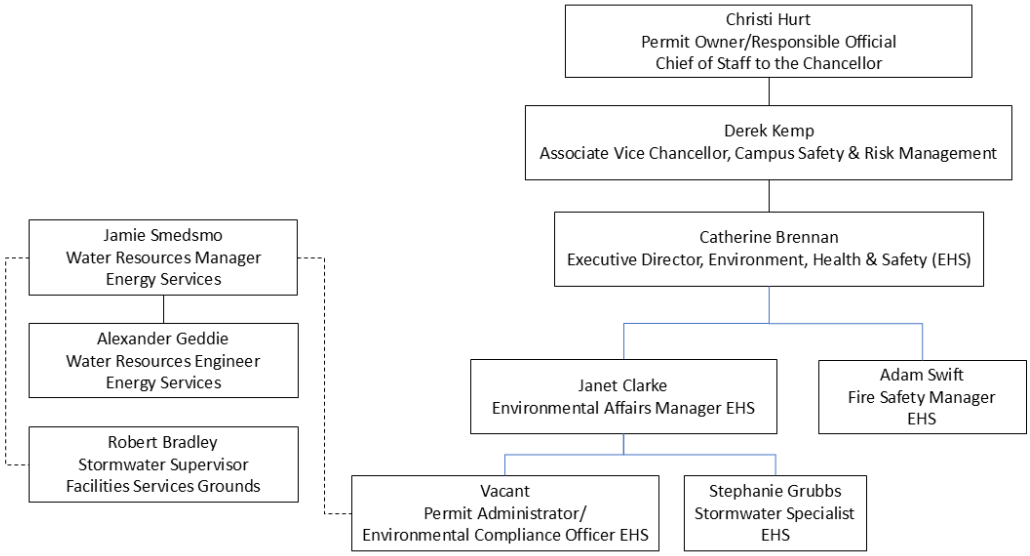
Location of Marine Sciences Institute
White Oak Basin 3
Subbasins within Watershed
County Boundaries

White Oak 3 = 6.5 acres or 0.01 Sq. Mi.

Appendix B

Organizational Chart

Appendix B UNC-CH Stormwater Permit No. NCS000441
Organizational Chart



4/16/2025