



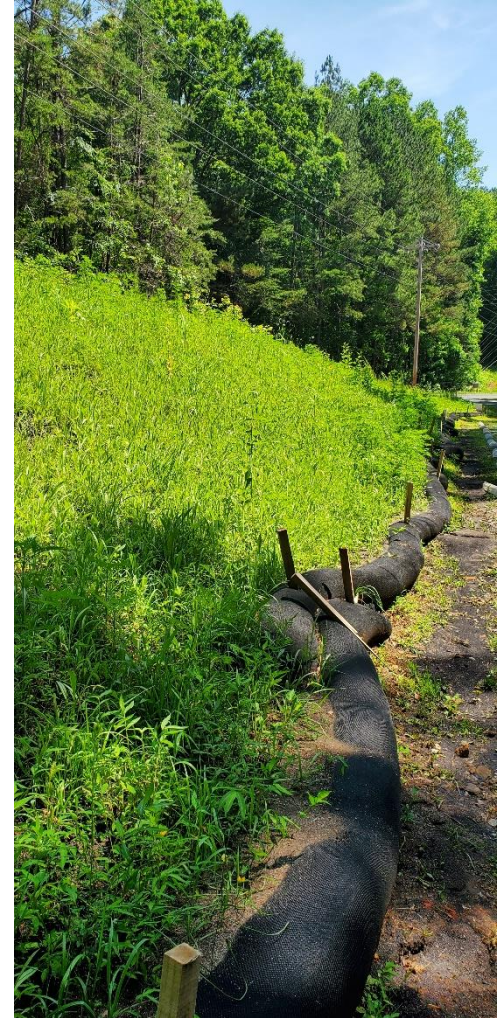
FISCAL YEAR 2022 | TOWN OF HILLSBOROUGH

NPDES Phase II Annual Report

Stormwater Management Program

July 2021 – June 2022

Published August 2022



The Stormwater and Environmental Services Division oversees the town's stormwater management program and stormwater utility.

The mission of this program is to reduce stormwater runoff pollution reaching the Eno River.

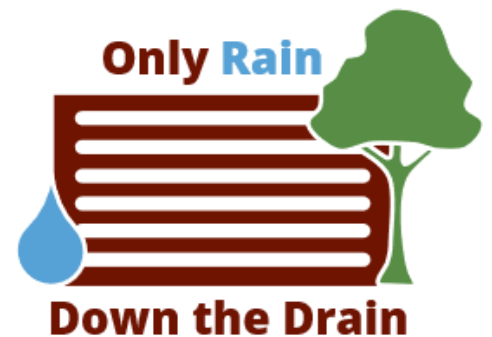


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INTRODUCTION

Why Care About Stormwater?

Adding impervious surface decreases the amount of stormwater that infiltrates into the ground. This increases the amount and velocity of stormwater runoff. This can cause accelerated erosion and downstream flooding. In addition, as stormwater flows across impervious surfaces, it picks up various pollutants. These include excess nutrients, oil and grease, bacteria and sediment. Polluted stormwater flows down storm drains and ditches where it is discharged, untreated, into local streams, rivers, and lakes. Stormwater runoff pollution causes adverse impacts to aquatic ecosystems, poses human health risks, and can greatly increase the cost of treating drinking water.

Program Background

In 1972, the National Pollutant Discharge Elimination System (NPDES) program was established under the authority of the Federal Clean Water Act. Phase I of the NPDES Stormwater program was established in 1990. It required NPDES permit coverage for municipalities with populations of 100,000 or more.

Phase II of the NPDES Stormwater program was signed into law in December 1999. The Phase II program extended permit coverage to smaller (< 100,000 pop.) communities and public entities that own or operate a municipal separate storm sewer system (MS4). It required these smaller communities to develop a stormwater program and obtain an NPDES permit for stormwater discharges.

In North Carolina, the Department of Environmental Quality (NCDEQ) administers the NPDES Stormwater program. NCDEQ issued the Town of Hillsborough's (Town) initial Phase II permit, on October 1, 2005. The permit required the Town to develop, implement, and enforce a stormwater program designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable. The program was implemented in phases over five years of the initial permit. Pursuant to the permit the stormwater program included the following six minimum measures or best management practices (BMPs):

1. Public education and outreach on stormwater impacts;
2. Public involvement/participation;
3. Illicit discharge detection and elimination;
4. Construction site stormwater runoff control (Erosion Control);
5. Post-construction stormwater management for new development and redevelopment;
6. Pollution prevention/good housekeeping for municipal operations.

The Town's current permit, Number NCS000466, was issued on February 27, 2017. This annual report reflects reporting requirements pursuant to the permit. Numbers reported are for the fiscal year 2021-2022, which runs from July 1, 2021 to June 30, 2022 and is referred to hereafter as FY2022.

1. Storm Sewer System Information

1.1 Population Served

Estimated population served..... 9,660¹

1.2 Growth Rate

Estimated increase 2010-2020 58.7%²

1.3 Jurisdictional Area

Town Limits 5.7 sq. mi

ETJ..... 3.5 sq. mi.

1.4 MS4 Conveyance System

Due to the age of the town, MS4 consists of a variety of stormwater conveyances and components. These range from typical curb and gutter systems conveyed by concrete pipes to simple sheet flow. The predominate conveyance components include grass lined swales and vegetated drainage ditches with various pipes and culverts. There are also various detention systems within the Town's jurisdiction, however these are on private property.

MS4 system components are periodically inspected to ensure proper function. The North Carolina Department of Transportation (NCDOT) maintains systems within state road rights-of-way. Systems located on private property, including detention facilities and other engineered stormwater controls, are maintained by the owner.

1.5 Land Use Composition

Estimated Land Use³

Residential..... 36%

Commercial 30%

Industrial..... 5%

Open Space..... 29%

Total 100%

¹ April 2020 US Census Bureau, 2020 Census, PL94-171 as provided by the North Carolina Office of Budget and Management, State Demographics Data, <http://www.osbm.state.nc.us/>.

² Percentage increase from 2010 to 2020 (April 2020 US Census Bureau, 2020 Census PL94-171 as provided by the North Carolina Office of Budget and Management, State Demographics Data, <http://www.osbm.state.nc.us/>).

³ Land use percentages were estimated from the Town of Hillsborough Land Use GIS database. Area of parcels for each designated land use type were summed and calculated for relative percentage of the planning jurisdictional area.

1.6 TMDL Identification

Currently, no streams flowing into or out of the Town of Hillsborough’s jurisdiction have an associated Total Maximum Daily Load.

2. Receiving Streams

The Town of Hillsborough lies entirely within the Falls Lake Watershed, which is part of the Neuse River Basin. Specifically, the Town drains to the Eno River. Specific receiving waters are listed below.

Receiving Stream	Description	Classification	Index No.
Eno River (Corporation Lake, Lake Ben Johnston)	From a point 0.4 mile upstream of Dry Run to dam at Lake Ben Johnston (Orange County water supply intake & Town of Hillsborough water supply intake)	WS-II; HQW, CA, NSW	27-2-(3.5)
Eno River	From dam at Lake Ben Johnston to Orange County SR 1561	C; NSW, N	27-2-(7)
Seven Mile Creek	From a point 0.4 mile upstream of I-85 to Lake Ben Johnston, Eno River	WS-II; HQW, CA, NSW	27-2-6-(1.5)
Rocky Run	From a point 0.5 mile upstream of I-85 to Seven Mile Creek	WS-II; HQW, NSW	27-2-6-2-(2)
Cates Creek	From source to Eno River	C; NSW	27-2-8
Strouds Creek	From source to Eno River	C; NSW	27-2-9
Stony Creek	From source to a point 0.4 mile upstream of Orange County SR 1710	C; NSW	27-2-13-(1)

3. Existing Water Quality Programs

3.1 Local Programs

The following programs and ordinances are being implemented within the Town of Hillsborough’s jurisdiction.

Unified Development Ordinance (UDO) – regulates overall development and land use. Specific water quality aspects include local stream buffer rules and post construction stormwater requirements, including nutrient limits.

Flood Damage Prevention – through its UDO the Town protects water quality by preventing new development within flood hazard zones.

Local Nutrient Sensitive Waters (NSW) Strategy - through its UDO the Town adopted stormwater requirements for new development to meet the Falls Lake Nutrient Management Strategy (Falls Lake rules).

Delegated Erosion and Sediment Control Program - as noted in Section 6, the Town relies on Orange County to conduct an erosion control program. Orange County has local delegated authority from the state.

3.2 State Programs

State programs, including the Neuse, Falls Lake, and Water Supply Watershed rules are implemented at a local level. The Town of Hillsborough does rely on NCDOT to maintain stormwater facilities and programs within state-owned road rights-of-way.

4. Permitting Information

The Town's Stormwater Program is under direction of the Stormwater and Environmental Services Manager. Stormwater and Environmental Services is a division of the Town's Community Services Department and is supervised by the Assistant Town Manager/Community Services Director. This department also includes Planning and Economic Development, Public Works and Public Spaces and Sustainability.

4.1 Responsible Party Contact List

Overall implementation and oversight of the Town's Stormwater Program is directed by:

Terry Hackett, Stormwater & Environmental Services Manager
Town of Hillsborough
P.O. Box 429
101 E. Orange Street
Hillsborough, NC 27278
Telephone: 919-296-9621
Email: terry.hackett@hillsboroughnc.gov

4.2 Signing Official

The Town of Hillsborough operates under a council-manager form of government. The town manager is responsible for management and oversight of the Town's daily operations. Contact information is listed below:

Eric Peterson, Town Manager
Town of Hillsborough
101 E. Orange Street
P.O. Box 429
Hillsborough, NC 27278
Telephone: 919-296-9421
Email: eric.peterson@hillsboroughnc.gov

5. Co-Permit Status Information

The Town of Hillsborough holds its own NPDES Phase II permit and does not co-permit with another entity.

6. Reliance on Another Entity

The Town of Hillsborough utilizes Orange County to implement the Construction Site Stormwater Runoff Control (i.e. erosion control) portion of its stormwater program.

6.1 Contact Information

Erosion Control Program: Patrick Mallet, Erosion Control Supervisor
Orange County Planning and Inspections Department
131 W Margaret Lane, Suite 201
Hillsborough, NC 27278
919-245-2577
pmallett@orangecountync.gov

6.2 Legal Agreement

The Town maintains an inter-local agreement with Orange County to provide erosion control services. The current agreement was approved in October 2012.

7. Stormwater Management Program Plan

The following sections briefly describe the Town's stormwater management program for each of the six BMPs. Detailed information regarding each program area can be found in the Town's comprehensive stormwater management plan, available on the Town's website.

7.1 Public Education and Outreach

The objective of the Town's stormwater public education and outreach program is to increase citizen awareness of stormwater runoff pollution and related issues. The Town's stormwater public education and outreach program includes the following primary components:

- *Disseminate Educational Materials*

The Town disseminates educational materials that are either developed in-house or use existing materials available from other agencies. These materials are distributed electronically, at educational programs, special events and directly to individual citizens or businesses.

- *Stormwater Newsletter, Articles and Press Releases*

The Town publishes the *Stormwater Almanac*, a newsletter that educates and informs citizens about stormwater management issues within the Town. In addition, Town stormwater staff often write articles on various stormwater program related topics that are published in other periodicals. Stormwater staff

also coordinate with the town's Public Information Office for press releases from the Town highlighting stormwater management related issues, stormwater related volunteer events, etc.

- *School programs*

The Town conducts direct educational, stormwater related programs for local schools. This includes partnering with other local governmental agencies conducting environmental education programs in local schools. Annual programs include Earth Walk with local seventh grade students, Eno River field trip with Orange High AP Environmental/Earth Science classes, science night at The Expedition School, as well as other programs as requested.

- *Special Events and Civic Groups*

The Town provides stormwater education and outreach programs/materials at local special events such as "Last Fridays", "Earth Evening" and "Citizens Academy." Town stormwater staff also provides educational programs to various civic groups, including local scout units, homeowner associations, churches and various other groups.

- *Social Media*

The Town maintains a Facebook page (www.facebook.com/ToHGovSW/) and Twitter account (@ToHGovSW) for the Stormwater and Environmental Services Division. Weekly posts provide education on pollution prevention, encourage citizens to explore nature and enjoy the Town's water resources, and promote special events and volunteer workdays.

- *Clean Water Education Partnership.*

The Town of Hillsborough actively participates in the Clean Water Education Partnership (CWEP). CWEP assists member governments with their stormwater outreach and education program by leveraging member dues to conduct various media campaigns. The FY2022 CWEP annual report can be accessed from their website, <https://nc-cleanwater.com/>.

Despite loosening of restrictions, the ongoing COVID-19 pandemic impacted the Town's Public Education and Outreach Program again in FY2022. Both virtual and in-person events were conducted. FY2022 Summary statistics for the primary components of the Town's Public Education and Outreach Program are provided in the following sections.

7.1.1 *School Program Statistics*

School programs were again impacted by the COVID-19 pandemic. Direct education programs that the Town participated in previously have not been held since the pandemic began. Many of these programs occur in the fall of the year and staff are hopeful that they will resume in FY2023. Despite the pandemic, two school programs were conducted. One was an adult continuing education program, and the other was a youth direct education program conducted in Hillsborough by CWEP staff.

School Stormwater Education Programs - FY2022		
Program	Students	Giveaways/ Certificates
NCSU OLLI Lecture	11	11
CWEP Stormwater Story Time	40	--
<i>Total</i>	<i>51</i>	<i>11</i>

7.1.2 *Outreach, Special Events and Other Program Statistics*

Town staff was able to conduct both virtual and in-person events in FY2022 despite the ongoing COVID-19 pandemic. Presentations to local civic groups were made virtually, while in-person meetings were conducted outside with Homeowner Association Groups. The Town also participated in the first ever “Orange County Creek Week” which was a collaboration of local governments within Orange County. This weeklong event had both in-person and virtual offerings and coincided with CWEP’s regional creek week. Outreach was also conducted through publications and social media. The following table summarizes the FY2022 statistics:

Outreach, Special Events and Other Programs - FY2022		
Program	Participants	Handouts/ Giveaways
Fairview Community Watch Meeting	15	--
Fiori Hill HOA Site Meeting	12	--
Triangle Fly Fishers Clinic	23	23
Hillsborough Garden Club	15	--
Orange County Master Gardner Presentation	39	--
Corbinton Commons HOA Meeting	4	--
Green Infrastructure Tour & Information Session	29	18
Odie Street Green Infrastructure Design Workshop #1	22	43
Odie Street Green Infrastructure Design Workshop #2	16	16
Earth Evening	250	42
Margaret Lane Residents Site Meeting	4	8
<i>Total</i>	<i>429</i>	<i>127</i>

7.1.3 Newsletters, Articles and Press Release Statistics

Newsletters, Articles and Press Release Statistics – FY2022	
Stormwater Almanac (newsletter) Issues Published	1
Stormwater Related Press Releases	5
Stormwater Related Articles Written/Published	2

7.1.4 Town of Hillsborough Social Media Statistics

Twitter Analytics - FY2022	
Posts	46
Followers	230
Impressions ⁴	7,270

Facebook Page Analytics - FY2022	
Posts	77
Followers	247
Reach ⁵	3,250

Facebook Post Analytics - FY2022	
Post Reach ⁶	3,718
Post Engagement ⁷	332

7.2 Involvement and Participation

The objective of the Town’s public involvement and participation program is to strengthen citizen engagement in stormwater and environmental issues affecting the Town. Public Involvement and participation includes providing volunteer opportunities, exchanging information with citizens and elected officials, and providing public assistance on stormwater related issues.

- *Volunteer Opportunities*

Town Stormwater and Environmental Services Division staff coordinates volunteer opportunities to raise awareness of stormwater runoff pollution, engage citizens and ultimately reduce target pollutants. Volunteer opportunities regularly include trash/litter clean-ups, wetland/riparian

⁴ Count of times a post entered a person’s screen.

⁵ The number of people who saw any content from or about the page, including posts, stories, and social information from people who interact with the page.

⁶ Count of people for whom a post entered their screen.

⁷ Total likes, reactions, replies, link clicks, comments, and shares associated with a post.

vegetation planting, invasive species removal/monitoring, qualitative stream monitoring, and maintenance of the Town’s pollinator/rain gardens and stormwater wetland.

- *Public Meetings*

At a minimum, Town Stormwater and Environmental Services Division staff presents one update to Hillsborough’s elected Town Board of Commissioners regarding the stormwater program, annually. As part of the presentation, Town Commissioners can provide input on pertinent issues. Staff may also provide presentations to other Town advisory boards as requested.

- *Public Assistance*

Town Stormwater and Environmental Services staff provides assistance to citizens regarding stormwater pollution prevention, riparian buffer regulation, drainage issues and other related topics. This includes site visits and investigations as necessary.

In addition to the items listed above, the Town maintains a website with pertinent stormwater information. This includes email and phone numbers of stormwater staff so that citizens can report concerns. Other than emails and calls received, Town Stormwater and Environmental Services staff does not report website statistics.

Despite the ongoing COVID-19 pandemic, town staff was able to coordinate some volunteer opportunities. These opportunities were held outside following appropriate guidelines. FY2022 Summary statistics for the primary components of the Town’s Public Involvement and Participation Program are provided in the following sections.

7.2.1 *Volunteer Opportunity Statistics*

Tree/Wetland Plantings - FY2022			
Name/Location	Participants	Trees/ Plants	Acres
Tree Board Invasive Species Removal Creek Week Event #2	8	150	0.1
Triangle Fly Fishers – Wetland at Gold Park	8	12	0.05
Triangle Fly Fishers – River Walk Riparian Buffer Planting	6	33	0.01
<i>Total</i>	<i>22</i>	<i>195</i>	<i>0.16</i>

Litter/Trash Clean-ups – FY2022	
Number of Events	3
Number of Volunteers	23
Miles Cleaned	0.9
Pounds Collected	220

Volunteer Monitoring – FY2022	
Number of Groups	1
Number of Monitoring Locations	1
Total Number of Volunteers	8
Number of Actions Completed as a result ⁸	1

7.2.2 *Public Meeting Statistics*

Stormwater Related Public Meeting – FY2022	
Number of Public Meetings	1
Number of Attendees ⁹	23

7.2.3 *Public Assistance Statistics*

Public Assistance – FY2022	
Number of Calls, Complaints, Issues	25
Number Resolved	23

7.3 Illicit Discharge Detection and Elimination

The Town’s stormwater illicit discharge detection and elimination program (IDDE) is outlined in its *Illicit Discharge Detection and Elimination Plan* and is enforced through the Town code. This plan details measures that Town Stormwater and Environmental Services Division staff follows to find and eliminate illicit discharges and connections to the MS4. The primary components of this plan are described below:

- *MS4 Mapping*

The Town maintains a GIS map and database of the stormwater infrastructure within town limits. This includes pipes, ditches, swales catch basins, inlets,

⁸ The monitoring was at the Gold Park stormwater wetland, where a small group of volunteers removed trash, cattails and other nuisance vegetation.

⁹ Includes in-person attendees but does not include attendees that may have live streamed the meeting via the Town’s YouTube channel.

outlets and stormwater outfalls. The Town defines stormwater outfalls more broadly than EPA definitions. This conservative approach allows Town Stormwater and Environmental Services Division staff to evaluate outfalls as time allows and may eliminate some as stormwater outfalls, if appropriate. Currently, there are approximately 123 stormwater outfalls located within the Town’s jurisdiction.

- *High Priority Areas*

The Town’s *Illicit Discharge Detection and Elimination Plan* calls for the identification of high priority areas for IDDE screening investigations. The Town has designated four high priority areas: Downtown, Central Business District, West Hillsborough, and Meadowlands. These areas reflect a relatively high development density as well as a concentration of light industrial and commercial land use.

- *Illicit Discharge Investigation*

In general, this includes screening of high priority areas, dry weather inspections of stormwater outfalls and investigation of complaints/concerns submitted by citizens or by other town employees.

- *Sanitary Sewer Overflows*

While a sanitary sewer overflow (SSO) is ultimately the responsibility of the Town’s Utility Department, overflows can reach the stormwater system and/or receiving waters and are considered an illegal discharge. Therefore, statistics for SSO’s are included below.

- *Employee Cross-Training*

An important aspect of the town’s IDDE program is to provide training to other town employees in recognizing and reporting possible illicit discharges and connections. Due to various issues including the ongoing COVID-19 pandemic large training events were not held. Staff did train two employees in FY2022. Staff also refreshed training materials and are in the process of recording the training sessions to be made available through the Town’s employee intranet. This will allow more town employees access to stormwater related training.

FY2022 Summary statistics for the primary components of the Town’s IDDE Program are provided in the following sections.

7.3.1 *Illicit Discharge Statistics*

Illicit Discharge Summary – FY2022		
<i>Illicit Discharge Screening & Inspection</i>	Screening Investigations conducted	1
	Dry weather inspections conducted	12
	Illicit discharges found	0
	Illicit connections found	0

Illicit Discharge Summary – FY2022 (continued)		
<i>Illicit Discharge Screening & Inspection</i>	Illicit discharges/connections resolved	n/a
	NOVs Issued	0
<i>Individual Complaints & Investigations</i>	Number of Complaints/Investigations	4
	Investigations resolved	4
	NOVs Issued	0

7.3.2 Sanitary Sewer Statistics

There were two sanitary sewer overflows in FY2022. The first incident included approximately 300 gallons and did not reach an MS4 or receiving water. The second incident included approximately 12,000 gallons with 50 gallons reaching a receiving water.

SSO Summary – FY2022	
Number of SSO's	2
Reported to state	1
Causes identified	2
Sites repaired	2

7.3.3 Cross-Training Statistics

Due to issues related to the ongoing COVID-19 pandemic, larger training sessions were not held in FY2022. However, two new employees were trained individually.

7.4 Construction-Site Stormwater Runoff Control

Orange County implements and enforces construction site stormwater runoff control for the Town of Hillsborough through its erosion control program. Orange County has local delegated authority from the state to implement an erosion control program. Legal agreements are in place allowing Orange County to enforce its sedimentation and erosion control ordinance within the Town's jurisdiction except for publicly funded projects, which are subject to state jurisdiction.

Active construction projects are inspected regularly by Orange County Erosion Control staff. Inspection reports, notice of violations (NOVs) and stop work orders are provided to Town Stormwater and Environmental Services staff. In addition, the Town is required to conduct periodic audits/inspections of active construction sites, including Town construction projects, to help ensure compliance. Generally, Town Stormwater and Environmental Services Division staff typically inspect active construction sites once a month and conduct brief site visits more frequently.

FY2022 Summary statistics for the primary components of the Town's Construction-Site Stormwater Runoff Control Program are provided in the following sections.

7.4.1 Erosion Control Projects Reviewed/Permitted FY2022

ECP Review Summary – FY2022		
Project Name	Tract Size (acres)	Area Disturbed (acres)
Family Fare (Convenience Store) ¹⁰	1.64	1.53
<i>Totals</i>	<i>1.64</i>	<i>1.53</i>

7.4.2 Erosion Control Inspection Statistics

Inspection Summary – FY2022		
Active Projects	Privately Owned	5
	County Owned	0
	State Owned	0
	Town Owned Projects	0
	<i>Total</i>	<i>5</i>

Inspection Summary – FY2022 (continued)		
Inspections Conducted	OCEC Staff	169
	Town Staff ¹¹	23
	<i>Total</i>	<i>192</i>

Enforcement Actions	NOVs Issued	0
	Stop Work Orders	0
	<i>Total</i>	<i>0</i>

¹⁰ This project is a redevelopment project and while it required an erosion control permit, impervious surface was not increased and therefore did not require a stormwater management plan approval.

¹¹ Town Stormwater and Environmental Services staff conduct periodic, informal inspections of active construction sites, as well as responds to complaints regarding construction site runoff. This augments the formal inspections completed by OCEC.

7.5 Post-Construction Stormwater Management

The Town's post-construction stormwater program includes two primary components: new development review/approval and stormwater control measure (SCM) inspection.

- *New Development Review*

Proposed development projects are reviewed to determine if the Town's stormwater standards within the Unified Development Ordinance (UDO) are met. Projects meeting those requirements are issued a stormwater management plan approval. New development projects must currently meet both the NPDES Phase II post-construction stormwater requirements and the Falls Lake Rules nutrient loading requirements. Additionally, all SCMs must meet the state's Minimum Design Criteria (MDCs).

- *SCM Inspection Program*

The Town is required to maintain an SCM inspection program pursuant to both the NPDES Phase II regulations and the Falls Lake rules. The Town requires the owner of each SCM to inspect at least annually and submit a report to the Stormwater and Environmental Services Division. Additionally, the Town is required to inspect (or what the Town staff now calls "audit") SCMs approved through the UDO at least once every five years.

There are also SCMs within the Town's planning jurisdiction that were approved prior to the Town's NPDES stormwater permit issued in 2005. In March of 2013, Stormwater and Environmental Services embarked on a program to bring all SCMs within the Town's planning jurisdiction into compliance. This process includes conducting onsite audits of private SCMs by Town Stormwater and Environmental Services Division staff as time and resources allow. The intent is to exceed the audit/inspection interval required by the NPDES and Falls Lake regulations. The goal is to complete at least a third of SCM on site audits annually.

Town Stormwater and Environmental Services Division staff also tracks compliance with submittal of the required annual maintenance and inspection reports. The Town's UDO requires all SCM owners to submit their annual inspection report by September first of each year. The Town does allow exceptions to this requirement for specific situations. For instance, SCMs that are completed and closed out prior to the September first deadline are often exempted from this requirement in the first year.

Stormwater and Environmental Services began a new program in FY2018 to recognize those SCM owners who have exceptional compliance records. Annually in the early spring, staff evaluates SCM owner compliance and selects a small subset of owners to be recognized. Winners are recognized via social media, town press release, and the Stormwater Almanac publication. They are also given a certificate signed by the mayor.

FY2022 summary statistics for the primary components of the Town’s Post-Construction Stormwater Management Program are provided in the following sections.

7.5.1 New Development Review Statistics

Stormwater management plan approvals were re-issued for two previously approved projects:

- SW2018-41: Jones Ave Lots (Formerly Matthewson-Douglas Lots)
- SW2020-05: Collins Ridge Phase 1A, 1B, Pod D, & Mass Grading

No additional new development projects were approved by Town of Hillsborough stormwater staff during the past year.

7.5.2 SCM Inspections Statistics

SCM Onsite Audit Summary – FY2022	
Number of Mapped SCMs	135
SCMs Requiring 2020 Inspection	122
Audits/Inspections Conducted	38
Maintenance Issues Identified	16
Maintenance Issues Resolved as a Result	10
Violations Noted	1
NOVs Issued	1

7.5.3 SCM Annual Maintenance Inspection Report Compliance

Annual Inspection Reports Received – FY2022		
Year	No. of SCMs	Compliant
2013	63	13%
2014	66	47%
2015	72	71%
2016	85	73%
2017	87	76%
2018	91	78%
2019	95	87%
2020	122	72%

Annual Inspection Reports Received – FY2022		
Year	No. of SCMs	Compliant
2021	93 ¹²	95%
2022	122	97%

7.6 Pollution Prevention for Municipal Operations

The Town is required to develop and implement a pollution prevention program for municipal operations. In previous years, this program was guided by the Town’s *Pollution Prevention/Good Housekeeping Plan*. As part of the annual assessment of the Town’s stormwater program staff reviewed that plan and determined that it needed updated to better reflect NPDES permit requirements. The result is a new operation and maintenance plan that covers town-owned facilities, town-owned SCMs and the town’s MS4.

The Town’s *Operation and Maintenance Plan for Stormwater Pollution Prevention (OMP)* includes seven primary components and are briefly described below.

- *Inventory of Town Owned/Operated Facilities*

The OMP includes all town facilities with the potential for generating stormwater runoff pollution during town operations. The Town has developed and maintains an inventory that includes spatial data on the location, type and condition. The spatial information is maintained in a GIS system and is updated at least annually.

- *Inspection Program*

The inspection program specifies the inspection procedures for all town facilities addressed in the OMP. Procedures are tailored to each type of facility and priority level. Compliance inspections are conducted at all town-owned properties. Those identified as priority properties in the OMP are inspected annually, while non-priority properties are inspected at least once every five years. Priority facilities include the Wastewater Treatment Plant (WWTP), Water Treatment Plant (WTP), the Utility Collections and Distributions yard, the Public Works yard, and the Fleet Maintenance facility. These facilities are typically inspected at the beginning of the fiscal year.

Town facilities containing SCMs are also inspected annually, typically in May and June of each year. This timeframe allows a better assessment of the vegetative components of town-owned SCMs, lawn and other landscape or open space areas associated with town properties. Follow up inspections are conducted to ensure maintenance work is completed.

¹² Starting in FY21 the Town is reporting the number of SCMs scheduled to submit their annual inspection report rather than total SCMs to track percent compliance. For instance, there were several SCMs completed and closed-out in FY21 that do not require an inspection report until next year.

MS4 inspections are completed by “neighborhood” and a schedule is provided in the OMP. Supplemental MS4 inspections are conducted as part of our routine duties and often include citizen reported concerns. Inspections results for town-owned facilities, SCMs and MS4 are included in *Section 7.61*.

- *Routine Maintenance*

While specific maintenance items will be identified through the inspection process described previously, the OMP also identifies pollution prevention practices that are part of the routine maintenance of facilities. This includes things like stabilizing areas subject to erosion, picking up loose litter and trash, containing spills and leaks, etc. Routine maintenance covers town-owned properties, town-maintained streets and parking lots, town-owned SCMs and the town-owned MS4. Town staff tracks and evaluates effectiveness of regular street sweeping, percentage of storm drains/catch basins cleaned, amount of trash and debris removed from streets and MS4 components, the linear reet of ditches/swales maintained, and the amount of leaves collected from streets.

- *Spill Response Procedures*

The Town’s Spill Prevention, Control and Countermeasure Plan describes the procedures established to respond to and prevent spills. The plan outlines procedures for spill contingency, training, security, discharge prevention, and evaluation of risk. The plan also provides an inventory of storage facilities and specifies discharge and drainage controls. The Town of Hillsborough Safety and Risk Manager developed this plan and will be responsible for updating the plan periodically with input from facilities managers and stormwater staff.

- *Pesticide, Herbicide and Fertilizer Application Management*

As part of this plan, town operations include practices that minimize the use of pesticides, herbicide, and fertilizer and ensure the proper use, handling, storage, and disposal of these products. Stormwater pollution prevention training workshops include an overview of practices relevant to municipal use of pesticide, herbicide, and fertilizer. Within each department, supervisors are responsible for ensuring that employees and contractors are properly trained in pesticide, herbicide, and fertilizer application and all permits, certifications, and other measures for applicators are followed. Guidelines are provided in the OMP.

- *Training*

The goal of the training program is to provide staff with the resources needed to successfully minimize or eliminate stormwater pollution during daily Town operations. While the inspection program works directly with specific staff, the training program is broader in scope and includes all Town staff. The program provides a variety of training opportunities to accommodate staff needs and availability.

- *Vehicle Equipment Cleaning*

The Town provides a covered vehicle wash area located at the Fleet Maintenance Facility. The wash area consists of a concrete pad that drains to an oil and water separator, which then drains to the sanitary sewer. A roof covers the entire vehicle wash area. Staff who operate vehicles are instructed to use this wash area for all vehicle and equipment cleaning. The OMP also outlines practices related to vehicle and equipment cleaning.

Annual statistics for reportable portions of the OMP are provided in the following sections.

7.6.1 *Pollution Prevention Inspection Results*

Town facilities inspected in FY2022 are listed in the following table. All high priority facilities were inspected this year, and all low priority facilities have been inspected at least once in the last five years. Please refer to the Town’s OMP for a list of all facilities. Follow up inspections will be completed in the upcoming fiscal year for those listed as “Compliant w/Conditions.”

Town Facility Pollution Prevention Inspections, Priority Facilities - FY2022	
Facility	Status
Cates Creek Park	<i>Compliant</i>
Fleet Maintenance	<i>Compliant</i>
Gold Park	<i>Compliant</i>
Museum	<i>Compliant</i>
Old Landfill	<i>Compliant</i>
Public Parking	<i>Compliant</i>
Public Works Yard	<i>Compliant</i>
Riverwalk	<i>Compliant</i>
Turnip Patch Park	<i>Compliant w/Conditions</i>
Wastewater Treatment Plant	<i>Compliant w/Conditions</i>
Water Distribution Yard	<i>Compliant w/Conditions</i>
Water Tower (UNC Hospital)	<i>Compliant</i>
Water Treatment Plant	<i>Compliant w/Conditions</i>

7.6.2 *SCM Inspection Results*

Town-owned SCMs and inspections results are listed in the following table. Follow up inspections will be completed in the upcoming fiscal year for those listed as “needs maintenance.”

Town-Owned SCM Inspections – FY2022		
Facility	SCM Type	Status
Cates Creek	Bioretention	<i>Needs Maintenance</i>
Fleet Maintenance	Level Spreader	<i>Passed</i>
	Underground Detention	<i>Passed</i>
Gold Park	Bioretention	<i>Passed</i>
	Stormwater Wetland	<i>Passed</i>
Riverwalk	Dry Detention	<i>Needs Maintenance</i>
Water Tower	Bioretention	<i>Needs Maintenance</i>

7.6.3 *MS4 Inspection Summary*

One “neighborhood” was scheduled for an MS4 assessment in FY2022. The assessment rates “level of service” of the MS4. The condition of each component in the neighborhood is maintained in a GIS database and provided to the Public Works department to schedule maintenance.

MS4 Neighborhood Assessment Completed – FY2022		
<i>Name:</i>	Beckett’s Ridge ¹³	
<i>Type:</i>	Residential	
<i>Streets:</i>	Beckett’s Ridge Drive	
<i>Condition</i> ¹⁴ :	Good	88%
	Fair	12%
	Poor	0%

¹³ Due to staffing constraints only a portion of this neighborhood was assessed. Maintenance work was completed along a portion of Beckett’s Ridge Drive as a result. This assessment will be completed in FY2023.

¹⁴ Percentages are approximated based on the number of MS4 assets that were assessed. Please refer to the Town’s OMP for a list of neighborhoods and fiscal year scheduled.

7.6.4 MS4 Maintenance Statistics

MS4 Maintenance/Cleaning – FY2022		
<i>Street Sweeping</i>	Linear Feet/Month	88,952 ¹⁵
	Total Linear Feet	850,702
	Debris/Sediment Removed (tons)	26.7
	Percentage of Streets Noted “dirty” ¹⁶	1.5
<i>Storm Drains/ Catch Basins</i>	Catch Basins Cleaned ¹⁷	24
	Percent Storm Drains Inspected/Cleaned ¹⁸	100%
	Trash/Debris/Sediment Removed (pounds) ¹⁹	2,500
<i>Streets & Road Shoulders</i>	Leaves Collected (tons)	700
	Loose Trash/Litter Removed (pounds)	2,500
<i>Swales/Ditches</i>	Linear Feet Maintained ²⁰	2,798

7.6.5 Employee Training Statistics

Due to issues related to the ongoing COVID-19 pandemic, larger training sessions were not held in FY2022. However, two new employees were trained individually.

¹⁵ At the beginning of the fiscal year the town was sweeping only 63,398 linear feet monthly. Street sweeping was evaluated mid-year and new streets were added to the town’s system.

¹⁶ The Town’s street sweeping contractor notes which streets each month that were notably “dirty.” The number noted represents the average percent of linear feet noted as dirty. The Town is using this information to determine where to focus future efforts, track trends and evaluate effectiveness.

¹⁷ This represents the number of catch basins that were completely cleaned using a vac truck.

¹⁸ This represents the percent of storm drains that were inspected and cleaned of surface debris. This is a preventative action that reduces the amount of debris accumulating in catch basins. These storm drains are inspected and cleared at least monthly of debris.

¹⁹ This number is estimated by Public Works; staff are working towards tracking these amounts more exactly.

²⁰ This may include removal of debris, removal of accumulated sediment, reshaping, revegetating, etc.