2014 & 2015
MS4 ANNUAL REPORT

NPDES PERMIT #CT0030279

FOR

CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION

PREPARED FOR

CITY OF STAMFORD
888 WASHINGTON BOULEVARD
STAMFORD, CONNECTICUT 06901

SEPTEMBER 2015

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LETTER OF TRANSMITTAL

Date: 9/30/2015

Project No.: 105-26

To: Bureau of Materials Management/Compliance
CT DEEP
79 Elm St.
Hardford, CT 06106

Attn.: Chris Stone

Subject: 2014 & 2015 Stamford MS4 Annual Report

TRANSMITTING

☐ Plans ☒ Reports ☐ Correspondence ☐ Other: _____

Copies	Date	Description
1	9/30/2015	2014 & 2015 City of Stamford MS4 Annual Report
		NPDES Permit # CT0030279

Remarks: For your files

CC: Tyler Theder

Signed: T.J. Therriault

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INTRODUCTION

The City of Stamford (the City) was issued its current NPDES Permit (No. CT0030279) for discharge of stormwater from its municipal separate storm sewer system (MS4) on June 4, 2013. This permit requires many actions in order to reduce pollution from stormwater runoff.

This Annual Report (Report) covers the period from July 1, 2014 through June 30, 2015 (Reporting Period). It summarizes the activities conducted and measures taken to comply with the previous and current NPDES Permit during this Reporting Period. This Annual Report was prepared in accordance with the terms and conditions of the NPDES Permit, as well as the *Stormwater Management Plan, City of Stamford, Stamford, Connecticut, September 2, 2014* (the SMP).

The 2013 & 2014 MS4 final Annual Report was submitted to the Connecticut Department of Energy and Environmental Protection (CTDEEP) on September 30, 2014.

1.0 CONTACTS LIST

The following individuals are members of the City's Stormwater Pollution Prevention Team and have a role in the implementation of the City's stormwater management program and are in positions that have the potential to impact and improve stormwater quality. All of these individuals are involved in the development of the Stormwater Management Plan (SMP) and/or this Annual Report.

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2.0 PROGRAM EVALUATION

2.1 Stormwater Management Plan (SMP) Objectives

The City of Stamford (the City) was issued a NPDES Permit for discharge of stormwater from its municipal separate storm sewer system (MS4) on June 4, 2013. The City developed and is implementing a Stormwater Management Plan (SMP) based on the requirements of the NPDES Permit.

The SMP provides the framework for compliance with the terms and conditions of the NPDES Permit with the overall objective of improving the quality of stormwater runoff and protecting the surface waters of the State. The SMP seeks to achieve this objective through:

- Establishment of a Pollution Prevention Team
- Development of Stormwater Mapping
- Establishment and Implementation of Control Measures, including:
    - Public Education and Involvement
    - Source Controls for Pollution Prevention
    - Future Land Disturbance and Development Management
    - Infrastructure Operations and Maintenance
- Establishment and Implementation of an Illicit Discharge Detection and Elimination (IDDE) Program
- Establishment and Implementation of a Water Quality Monitoring Program
- Establishment and Implementation of Legal Authority to Control Discharges
- Establishment and Implementation of Procedures to Coordinate Stormwater Activities between various Departments and Agencies
- Maintaining Consistency with Other Plans and Permits

Additional details on each of these of these methods to achieve the objectives of the SMP are presented in the Summary Table of SMP Components (***Section 3.0***) and the Narrative Report (***Section 4.0***).

2.2 Major Findings

The objective of the SMP is to improve stormwater runoff quality and protect the surface waters of the State. This discussion of major findings should provide an overall evaluation as to whether stormwater and surface water quality in the City and from the City's MS4 is improving or degrading in the City.

Stormwater sampling conducted in the 2014-15 annual monitoring report year is being used to establish baseline conditions against which future data will be evaluated. See ***Section 4.5*** for additional information on monitoring events.

The major findings during this Reporting Period of the new NPDES Permit are the steps that the City has taken to implement the permit requirements, including but not limited to:

- Continued development of an understanding of the permit requirements and the resources necessary to achieve compliance
- Continued allocation of additional resources (personnel, equipment, and budget) to/within the Traffic and Road Maintenance Division to specifically address stormwater management and stormwater runoff quality improvement issues
- Continued coordination of the Stormwater Pollution Prevention Team with City Departments for stormwater-related issues
- Implementation of the SMP and associated public outreach activities
- Continuation of city-wide geographic information system (GIS) mapping related to stormwater infrastructure and management
- Continued development of legal authority and zoning regulations to address stormwater discharges and quality
- Continued coordination of public outreach with local environmental and business groups
- Continued coordination with consultants to assist in the implementation of the SMP and to perform surface water, stormwater, and outfall monitoring

2.3 SMP Strengths and Weaknesses

2.3.1 EPA Review of the Status of the NPDES Permit

Representatives from the US Environmental Protection Agency (EPA) and the CTDEEP visited with members of the City's Stormwater Pollution Prevention Team on June 15 and 16, 2015 to conduct a compliance audit of the City's NPDES Permit. The compliance audit included a "five-year look-back" period.

After the compliance audit, the EPA indicated the following areas of the permit needed improvement:

- **Mapping and GIS Work** – The EPA indicated that this area was on the top of their list, noting that determining the exact number of stormwater outfalls is critical to implementation of monitoring and illicit discharge detection. The City needs to finalize this information. The EPA also mentioned that the outfall mapping work should have been completed under the terms of the previous NPDES Permit [administered by the Stamford Water Pollution Control Authority (SWPCA)]. The EPA stated that they were looking at five years of compliance data (back to 2010), and as such, all outfalls 15 inches or greater should have been located and mapped by June 30, 2012. This work is still underway by Technology Management and GIS staff, and has generated over 900 outfalls as of June 2015. See ***Section 4.2*** for more details on the status of the stormwater management mapping.
- **Zoning Regulations** – The EPA reviewed a draft of the proposed modifications to Sections 3 & 15 of the Zoning Regulations, which will require builders and developers to comply with the 2002 CT Soil Erosion and Sediment Control Manual, along with other revisions and additions as required by the NPDES Permit. To comply with the NPDES Permit, the City is required to have these revisions approved by the Zoning Board and formally incorporated into the Zoning Regulations. This work is underway and the modifications have been sent out to

referral to various agencies. See ***Section 4.3.4*** and ***Section 4.6*** for more details on the Stormwater Ordinance and Zoning Regulations.

- **Staffing Levels** – The EPA indicated that there are inadequate staffing levels in the following departments:
    - **Land Use Bureau and Engineering Department** – Additional staff is required to perform technical review of land use permits due to volume and complexity of work. Performing site inspections before permit issuance, during construction, and prior to administering a Certificate of Occupancy are a critical component for compliance.
    - **Stormwater Management Department** – Additional staff is required (Heavy Equipment Operators) to operate vacuum trucks, the camera truck, and equipment to maintain storm drainage piping. The EPA also indicated that the addition of an Office Support Specialist (OSS) is required in the Stormwater Management Department to assist with data collection, record keeping, and correspondence requirements.
- **Drainage Basin Inspections** – The EPA reiterated that annual inspections and maintenance is required for all public and private detention and retention ponds in the City. See ***Section 4.3.5.8*** for more details on drainage basin inspections.
- **Industrial Dischargers.** – The EPA indicated that the City is required to educate owners and operators of commercial, industrial, and institutional facilities as to their responsibility to control pollutants in stormwater discharges from their properties into the City's MS4. See ***Section 4.3.2*** for more details on the education provided to the City's industrial dischargers.
- **Dry Weather Outfall Screening** – The EPA noted that the City did not complete any dry weather outfall screening in year one of the permit (July 1, 2013 – June 30, 2014). The City is required to be 50% complete with the dry weather outfall screening by July 1, 2015. Screening to comply with this requirement is currently underway. See ***Section 0*** for more information on the IDDE program and dry weather outfall screening.
- **Wet Weather Outfall Monitoring** – The EPA noted that the City did not complete the required number of samples (92), by June 30, 2015. This work is currently underway. See ***Section 4.5.3*** for additional information on the wet weather outfall monitoring.
- **Illicit Discharge Detection and Elimination** – The EPA indicated that the City needs to make progress in achieving results, eliminate illicit piping connections, and documenting and submitting the results of this requirement. See ***Section 0*** for additional information on the IDDE program.

The EPA stated that a summary of the compliance audit and any enforcement actions would be transmitted to the City within 60 – 90 days from the date of the compliance audit (by mid-September).

The SMP will continue to be evaluated in greater detail as part of the 2015-2016 Reporting Period. A component of that evaluation will be a review of goals, schedules, and procedures referenced in the SMP as "to be established" and a detailed analysis of the status of these items.

2.4 Future Direction of the SMP

The City considers the SMP to be a dynamic document and will continue to work towards updating and revising it as conditions and regulations change in an effort to maximize its ability to be utilized as a tool to manage and improve stormwater runoff quality. Because this SMP was recently established, the City's focus will be on implementing it to the best of their ability over the course of the next several years. For this reason, no significant changes to the SMP are anticipated at this time.

Now that the Traffic and Road Maintenance Division has had time to become acclimated to the permit requirements and develop and begin implementing the SMP, the City will continue to focus more of its resources in the coming years to achieving compliance with the SMP, particularly in the areas of:

- Public education and involvement
- Stormwater mapping
- Illicit discharge detection and elimination
- Control measures
- Infrastructure operations and maintenance
- Legal authority and regulatory changes
- Water quality monitoring

Specific goals or requirements are discussed in the Narrative Report, ***Section 4.0***, of this Annual Report.

The Team Coordinator and Regulatory Compliance and Administrative Officer will continue to be responsible for closely tracking individual activities and events in each of these areas.

3.0 SUMMARY TABLE OF SMP COMPONENTS

The summary table of SMP components is presented in ***Appendix B.*** This table concisely presents the stormwater management activities completed within the time period for this Annual Report and documents the City's compliance with key permit and SMP requirements.

Administrative issues, such as planning activities, program development, and pilot studies, are not discussed in the summary table of SMP components.

4.0 NARRATIVE REPORT

4.1 Pollution Prevention Team

The Pollution Prevention Team (Team), ***Section 1.0***, was established to implement the SMP, to keep it up-to-date as conditions and/or regulations change, to maintain the control measures to improve stormwater quality, and to take corrective actions, as necessary. With the issuance of the new NPDES Permit in 2013, the City decided to transfer the majority of the responsibility for compliance with the permit from the SWPCA to the Traffic and Road Maintenance Division.

Much of the first year of the new permit was utilized by the Traffic and Road Maintenance Division becoming familiar with the permit requirements and establishing the necessary schedules, procedures, personnel, equipment, financing, and other resources necessary to successfully implement the permit requirements and the SMP.

This second permit year was utilized to get the in-stream sampling up-to-date, commence discharge sampling, get the infrastructure and IDDE evaluations up-to-speed with the new tracking software and CCTV capabilities, jump-start the outfall identification and mapping process, establish the MS4 stormwater ordinance, and drafting modifications to the Zoning Regulations.

The Team that has been established under the current SMP (see Appendix B of the SMP and ***Section 1.0*** of this report) consists of personnel from many City departments whose operations may affect the current and future stormwater quality. Team members supply the City with a wide-range of experience and expertise in managing and controlling stormwater runoff quality.

Since 2013, the Team has continued improving their understanding of the new NPDES Permit requirements, communicating these requirements amongst themselves, establishing areas of responsibility and cooperation, brainstorming on public education and control measure ideas, and working with the appropriate legal counsel to establish legal authority and new regulations.

The Team's activities are coordinated by the Traffic and Road Maintenance Supervisor. Many of the day-to-day stormwater permit compliance activities are managed by the Regulatory Compliance and Administrative Officer; this position was created in early 2014 specifically as a result of the issuance of the current NPDES Permit.

The City has also created and filled seven positions under the direction of the Regulatory Compliance and Administrative Officer; the positions include equipment operators and laborers to help operate the vacuum trucks and camera truck for IDDE screening and catch basin and manhole inspections and cleaning.

It is anticipated that the Team will continue these activities during the next year of the discharge permit as well as develop and coordinate additional specific goals with the objective of improving the overall quality of stormwater runoff in the City of Stamford.

4.2 Mapping

The City maintains a strong GIS Department that can coordinate city-specific, as well as environmental data, available from the DEEP and other sources. Information that has been mapped includes: city roadways, city properties, aerial photography, topography, zoning map, surface water bodies, watershed areas, surface water quality classifications, impaired waters, mapped inland wetlands, mapped tidal wetlands, the coastal boundary, and the ten approved in-stream sampling locations.

The City has hired a consultant that is in the process of mapping sanitary sewer lines, stormwater lines, and stormwater outfalls. Mapping efforts have focused on the more developed sections of the City, closest to Long Island Sound, with the most stormwater outfalls mapped south of Interstate 95 and many more mapped between I-95 and the Merritt Parkway (Connecticut Route 15). Initially, 154 stormwater outfalls were mapped. Several of the initially mapped outfall locations were determined to be inaccurate and 90 MS4 outfalls have been confirmed/identified/mapped. Two of the previous 92 MS4 outfalls were eliminated from the list, outfalls number SON-0021 and SON-0060. These outfalls were removed from the monitoring list because one was identified as the SWPCA's Facility discharge location and the other was a structure inlet.

The City continued to identify and map new MS4 outfalls in the City throughout the Reporting Period. To date, the City is approximately 60% complete with their stormwater mapping and has identified approximately 900 potential new outfalls. The City is currently in the process of confirming the accuracy of the outfall locations and if they are part of the City's MS4 stormwater system or another entity's responsibility. Several of the potential new outfalls have been identified as duplicates and others have been noted as inlets or discharges under state DOT control. The City continues communication with the DEEP to identify more specific criteria for the outfalls that will be required for monitoring as part of the IDDE program and the wet weather monitoring. See ***Section 0*** and ***Section 4.5.3*** for additional details on the IDDE program and the wet weather monitoring program.

This component of the SMP is to be expanded to include the following GIS mapping:

- Storm line material and size data
- Responsibility, if part of another MS4 stormwater system (such as DOT's)
- Completed and proposed cleaning and repair activities
- Outfall discharge monitoring data
- IDDE screening and investigation results
- Proposed IDDE investigations
- Completed and proposed capital projects
- Connections to any other public or private storm drainage systems
- Drainage areas for each MS4 outfall
- Areas served by on-site subsurface disposal areas
- Storm drains that do or may receive discharges form underdrain systems

For an update on the impervious cover and directly impervious cover area (DCIA) see ***Section 4.3.4.1***.

4.3 Control Measures

4.3.1 Public Education and Involvement

City residents can contribute to the pollution transported via stormwater by misapplying lawn pesticides, herbicides and fertilizers, littering, dumping pollutants into storm drains, failing to dispose of pet waste properly, and other actions which can be detrimental to the quality of stormwater discharging into water bodies. Many people are unaware that they are polluting when engaged in these activities. Therefore, public education and outreach and public involvement and participation will help minimize the amount of pollution contributed to the City's water bodies by local residents. Also, public education and outreach coupled with public involvement and participation allows city residents to have a voice with regard to stormwater.

During this Reporting Period, the following public education and involvement activities have been completed:

- The City has continued to maintain and update the stormwater section that was previously added to the City of Stamford's website at http://www.stamfordct.gov/stormwater-management. The website provides basic information about stormwater as well as key contacts within the City of Stamford. Additionally, it provides links to:
    - The NPDES Permit
    - The SMP
    - The MS4 Stormwater Ordinance
    - The 2012 and 2013-2014 Annual Report
    - The household hazardous waste collection events schedule and information on the materials managed
    - Dog waste management practices
    - Best management plans for pesticides
    - Information on preventing stormwater pollution honored
    - Fall leaf pick up schedule
    - Christmas tree pick up schedule
    - How to report a stormwater issue, violation, or complaint

  The City has also added a Frequently Asked Questions section that includes 25 questions and answers that city residents may view. To date, there have been approximately 350 hits on the website.
- In 2014, the department adjusted internal operations to receive and respond to citizen questions and complaints regarding stormwater related issues. The City's stormwater management department responded to numerous citizen inquires regarding snow storage, sweeping, catch basin cleaning, and IDDE program during the Reporting Period.
- A public meeting was held on August 3, 2015 for the review of the SMP and the draft 2014-2015 Annual Report. The Notice of Meeting was published in the Stamford Advocate on July 22 and 29, 2015 and was posted on the City's stormwater management website. The Notice of Meeting was filed with the Town Clerk, forwarded to the Board of Representatives, and posted throughout Government Center. The leadership/directors of two local environmental groups, SoundWaters and the Mill River Collaborative, were provided with notice of the meeting. The

meeting sign-in sheet and the questions and answers provided during the meeting can be found in ***Appendix C***.

- An informational pamphlet on dog waste management was / will be provided to all dog owners at license renewal time. 3,550 pamphlets were provided to the Town Clerk for distribution and an additional 6,000 copies were ordered.
- In 2013-2014, the City installed ten dog waste dispensers and signs informing park patrons of the need to pick up after their dogs in key parks. These signs refer to the existing municipal dog waste ordinance in the City Charter (Section 111). Fifty (50) additional dispensers were purchased and are being installed by the City Parks and Recreation Department. A list of existing and proposed dog waste dispenser locations is presented in Appendix C of the SMP. A map was generated for the proposed locations and the Parks and Recreation Department will continue to install the dispensers and signs throughout 2015.
- The SWPCA provides tours of the City's wastewater treatment facilities to school children and adults. During the Reporting Period, approximately 888 people attended these tours. As part of the presentation, they discuss stormwater impacts and typically distribute a brochure entitled "What is Your Storm Drain IQ?"
- The Mill River Collaborative performs annual clean ups, improvements, and provides educational programming within the City. Approximately 5,350 volunteer hours were provided during this Reporting Period.
- SoundWaters is the leading environmental education organization on Long Island Sound. Over 25,000 students learn and explore with SoundWaters, through education and action, every year. The City is teaming with this group to collaborate on educational programming. SoundWaters is currently exploring options for purchasing fixed monitoring stations for the Long Island Sound river estuaries. They are reviewing specifications for essential monitoring parameters. These monitoring stations may help the City supplement data in the event that in-stream sampling is discontinued in the future.
- The City conducted an educational outreach program event at the Dolan Middle School. Four classes, including 168 students, of sixth graders were introduced to the concepts of stormwater quality management using a PowerPoint presentation and were given the opportunity to see the vacuum trucks used to clean out the catch basins and manholes. The City is in the process of collaborating with other middle schools throughout the City to expand this outreach program.
- The City ordered and has received 7,000 catch basin medallions for placement on catch basins throughout the city. These medallions were ordered in both English and Spanish to help raise public awareness for stormwater quality issues. These medallions are being installed in 2015 by City staff members or by seasonal employees and volunteers.
- Harbor Watch, a division of Earthplace, a not-for-profit organization, was retained by the City, using grant funding, to conduct the dry weather outfall sampling as part of the IDDE program (see ***Section 0***).
- The City distributed stormwater informational mailings to targeted neighborhoods where illicit discharges were discovered.
- The City distributed informational mailers to over 900 licensed home improvement contractors with Stamford mailing addresses.

4.3.2 Industrial Dischargers

During the 2015 NDPES Permit compliance audit, the EPA indicated that the City is required to educate owners and operators of commercial, industrial, and institutional facilities as to their responsibility to control pollutants in stormwater discharges from their properties into the City's MS4.

The City's Stormwater Management Department has obtained a CDEEP list of stormwater discharge General Permit sites for commercial or industrial activity and will prepare informational outreach materials to target these businesses. The City intends to distribute the materials during the 2015-2016 Reporting Period.

4.3.3 Source Controls and Pollution Prevention

4.3.3.1 Motor Oil Collection

The City collects used motor oil and cooking oil at the Katrina Mygatt Recycling Center so that residents will have a place to properly dispose of these materials and to limit the potential for them to be improperly disposed and adversely affect stormwater quality. From July 2014 – June 2015, approximately 2,675 gallons of used motor oil and 2,200 gallons of used cooking oil were collected. The City intends to continue its used motor oil collection activities.

4.3.3.2 Household Hazardous Waste (HHW) and Electronic Waste Collection Programs

The City holds at least one HHW collection day within the City limits each year so that residents will have a place to properly dispose of these materials and to limit the potential for them to be improperly disposed of and potentially affecting stormwater quality. In 2014 and 2015, the City hosted an HHW collection day on July 19th. In addition, Stamford residents are able to utilize HHW collection days in Darien, Greenwich, New Canaan, Norwalk, Westport, Weston, or Wilton approximately seven other days per year (throughout the spring and fall). The City intends to continue its involvement in these collection events.

The City collects used consumer electronics at the Katrina Mygatt Recycling Center during normal operating hours. Acceptable materials include computers, monitors, televisions, VCRs, DVDs, cell phones, copiers, fax machines, printers, radios, stereos, and small electronics. In addition, inks and toners, rechargeable batteries, lithium ion batteries, vehicle batteries, compact fluorescent light bulbs, and linear lamps are also accepted at the Recycling Center. From July 2014 – June 2015, approximately 285 tons of consumer electronics and universal wastes were collected. The City intends to continue its waste electronics collection activities.

4.3.3.3 Spills and Leak

The City maintains Spill Prevention and Response Plans (SPRPs) to prevent, contain and clean up spills of oils, petroleum products, and other potentially hazardous materials. Site-specific SPRPs have been developed for Town facilities on Magee Avenue, the Town Yard, the Police Department, and the

SWPCA Facility. Other City facilities and private properties in the City are covered by the Fire Department's Standard Operating Guidelines. The City reviewed these plans during the Reporting Period to ensure that they were properly designed to prevent spills or leaks from entering the MS4 and provided for appropriate response procedures and countermeasures to minimize stormwater impacts and protect surface waters. Currently, the City is in the process of coordinating between all City departments for the development and implementation of a city-wide SPRP.

The department responded to ten (10) spills in excess of five gallons of petroleum products on the City's roadways and coordinated with first responders (Police, Fire, DEEP) to limit impacts to the City's MS4. A list of recent spills during the Reporting Period, of five gallons or more, is presented in ***Appendix D***.

For additional information on training for spill prevention and response see ***Section 4.3.5.1***.

4.3.3.4 Pesticide, Herbicide and Fertilizer Use Limitations

The City is required to limit the use of pesticides, herbicides and fertilizers (PHF) in city-owned or operated areas. The City has developed the Best Management Practices (BMPs), found in Appendix G of the SMP, for PHF application in city-owned or operated areas. Further development of standard operating procedures (SOPs) for the use of PHFs is ongoing. It is anticipated that they will be modeled based on the CTDEEP Integrated Pest Management (IPM) Plans. Completion of the PHF SOPs is anticipated by July 1, 2016.

Fertilizers and herbicides are used on the municipal athletic fields, as described in the SMP. Every year, in April, Dimension (18-0-40) is applied to the fields and contains both fertilizer and herbicides. In May, ProPendi (13-0-4) is applied to the fields and contains both herbicides and fertilizer. In September, just fertilizer (25-0-5) is applied to the fields. The City applied a total of 1,530 pounds of nitrogen to the ball parks in 2014. See ***Appendix E*** for a table of the total nitrogen used at the City-owned ball parks.

As required by the NPDES Permit, the City is in the process of establishing reduction goals, including consideration of alternatives, for PHFs being used at city-owned or operated areas, specifically at the municipal athletic fields.

No PHFs are used on city park green spaces.

The Mill River Park/Mill River Collaborative completely avoids the use of synthetic fertilizers. They employ a "feed the soil ecology" program where the soil is infused with sixteen or more species of bacteria and fed with a fish emulsion/kelp/yucca blend as a substitute for traditional fertilizers. Additionally, the Mill River Collaborative maintains its lawns at four inches to build deeper, more drought tolerant root systems. All grass clippings are returned to the lawns and they use organic products, such as soy bean meal, to add nitrogen to the soil. The Mill River Collaborative uses minimal herbicides on invasive plant species per DEEP guidelines. They have found that as they continue this program, they require less herbicide use each year.

With respect to the city-owned golf courses, the NPDES Permit requires that the City implement practices which achieve a ten percent (10%) reduction in total nitrogen by June 3, 2018. The reduction will be determined by the average annual usage, by weight, of the three years preceding the current NPDES Permit. The current SMP has established the application rates of fertilizers used at the golf courses, which can be found in Appendix G of the SMP. The City's Regulatory Compliance and Administrative Officer is currently in the process of obtaining background documentation from the city-owned golf courses in order to establish the total amount of nitrogen applied during the three years preceding the current NPDES Permit (2010-2012). This data will serve as the basis for establishing the amount of total nitrogen reduction.

During the Reporting Period, the Sterling Farms Golf Course used a total of 4,617 pounds of nitrogen and the E. Gaynor Brennan Municipal Golf Course used a total of 3,637 pounds of nitrogen. The total, 8,254 pounds of nitrogen, used in 2014 represents a nine percent reduction from the total nitrogen that was used in 2013 (9,082 pounds). See ***Appendix E*** for a table of the total nitrogen used at the City-owned golf courses.

The Pollution Prevention Team will work with the golf course staff to help reduce the total amount of nitrogen used at these facilities. It is the City's intention to establish goals for reducing the amount of PHFs used at all city-owned or operated areas.

4.3.3.5 Salt Storage and Usage

The City stores road salt (and/or salt mixtures) at the Highway Department (90 Magee Avenue), the Town Yard (106 Haig Avenue), and the Scofieldtown Transfer Station (612 Scofieldtown Road). At each facility, salt is stored on an impervious pad and under a salt shed in accordance with the requirements of the DEEP's *General Permit for the Discharge of Stormwater Associated with Industrial Activities*.

The City used approximately 19,826 tons of salt during 21 storms with a combined total of 69 inches of snow during the winter of 2014-15. Salt usage quantities will continue to be tracked and the City's goal is to reduce the amount of salt and salt-sand mixture utilized on its roadways by increasing efficiencies and investigating alternate methods. However, salt usage will continue to vary based on storm frequency and intensity.

The City intends to expand its use of brine trucks for pre-treatment in the future, which will help reduce road salt usage. See ***Section 4.3.5.6***, Snow Removal, for additional discussion on salt usage.

4.3.4 Land Disturbance and Development

Construction site runoff and post-construction site runoff should be reduced so that water bodies are not receiving additional pollutants or sediment. Sediment causes water bodies to become physically and biologically altered. Decreases in habitat quality can result from significant amounts of sediment covering these habitat areas.

Under the terms of the NPDES Permit, the City of Stamford is required to implement and enforce a program to address construction and post-construction stormwater discharges from land disturbing activities and after site stabilization has been achieved. This program needs to be based on the *Connecticut Guidelines for Soil Erosion and Sediment Control* (latest edition) and the *Connecticut Stormwater Quality Manual* (as amended). The City is currently working towards developing this program; both of these documents will be incorporated into the draft changes to the Zoning Regulations.

The City has a well developed process for ensuring that applicants for building permits have received all appropriate City approvals prior to issuance of a building permit. A copy of the checklist utilized by the Building Official is presented in Appendix J of the SMP. As part of this review and approval process, the Engineering Department reviews stormwater and drainage for proposed developments and site plan revisions.

The site plan review process will continue in the future, but the site-specific stormwater requirements will be better defined once the draft Zoning Regulation changes have been approved and implemented. The NPDES Permit requires the City of Stamford to develop and enforce a program to control stormwater discharges from development and redevelopment activities with one-half acre (21,780 sf) or more of soil disturbance. The one-half acre threshold applies both individually and collectively as part of a larger common plan. Modifications to the Zoning Regulations will include provisions to encourage low impact development (LID) practices to maximize infiltration and minimize stormwater runoff. The regulations will also limit barriers to LID design and construction.

The NPDES Permit requires the City to conduct site-plan review and pre-construction review meetings that incorporate consideration of stormwater controls or management practices to prevent or minimize impacts to water quality. The City currently conducts such meetings internally as part of staff review of many projects. Meetings with developers occur when the project has significant potential for environmental impact.

As part of the application review process, the City is now providing applicant's with information on the DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities*.

The NPDES Permit also requires site inspection and enforcement to assess the adequacy of the installation, maintenance, operation, and repair of construction and post-construction control measures. The City's staff performs site visits when the project is in close proximity to a wetland or other water body. Current staffing levels limit the opportunities for site inspections to only those projects with the greatest potential for impact to stormwater quality. Site visits frequently occur prior to the issuance of a Certificate of Occupancy.

The City of Stamford's Environmental Protection Board conducted permit and technical reviews, enforcement and inspections and other land development services. A summary table of the services that they provided during the Reporting Period is included in ***Appendix F***.

Additional information on the proposed stormwater ordinance and changes to the Zoning Regulations are presented in ***Section 4.6***, Legal Authority.

4.3.4.1 Impervious Cover

The NPDES Permit calls for completion of DCIA (directly connected impervious area) mapping associated with each MS4 outfall within four years. The City is in the process of estimating the DCIA throughout the City. During this reporting year, sub-meter aerial photogrammetry of the City was generated that will be used in determining the DCIA. The initial estimate will be based on the total area of impervious cover, including roadways, drive ways, sidewalks, parking lots, and building footprints, that discharge to the MS4. Allocating the amount of the DCIA to each MS4 outfall and evaluating each drainage area to determine if the roof tops are connected to the DCIA will be performed in the next couple of years. Estimates will be revised in the future as development, re-development, or retrofit projects or new information effectively add or remove DCIA to or from the MS4.

4.3.5 Infrastructure Operations and Maintenance

Pollution prevention and good housekeeping are critical minimum control measures because they concentrate on municipal operations including the maintenance of other control measures. These activities can make an immediate difference with local water body pollutant levels. Street sweeping and other maintenance activities reduce the amount of sediment, salt and pollutants entering the drainage system thereby minimizing pollutant loads to local water bodies.

4.3.5.1 Employee Training

Employee training is essential for maintaining and increasing the awareness of water quality related issues in the management of any MS4. Training also enables facility staff to have an improved understanding of the stormwater system and how to minimize the impact the facility has on the MS4.

All employees working at city-owned facilities participate in annual training to meet the requirements of the DEEP's *General Permit for the Discharge of Stormwater Associated with Industrial Activity*. This annual training includes:

- Overview of the NPDES MS4 Permit
- Review of the goals and objectives of the SMP
- Review of facility Stormwater Pollution Prevention Plan
- Review of good housekeeping
- Identifying and reporting illicit discharges
- Review of spill prevention and response procedures

Training was conducted on July 11, 2014 for Stormwater Pollution Prevention and Universal Waste Management for ten Maintenance Garage, Highway Facility and Recycling Center employees working at City-owned facilities. Additionally, Universal Waste Management, Spill Prevention Control and

Countermeasures Plan, and Stormwater Pollution Prevention Plan training was conducted on June 16 and 17, 2015 with approximately 20 employees in attendance from City-owned facilities.

Twelve members, or departmental designees, of the Pollution Prevention Team attended additional MS4 SMP training on October 23, 2014 titled *"Stamford's MS4s and You: Your Role in Stamford's Stormwater Management Program"*. This MS4 training highlighted the importance of stormwater quality, what impacts stormwater quality and how stormwater quality can be controlled.

The City is dedicated to ensuring that its employees continue to gain the necessary knowledge needed for understanding and implementing the SMP in order to increase the quality of the stormwater in the City's MS4. The City will continue to update and implement its training programs for all employees working at city-owned facilities. A copy of the sign-in sheets for each of the training events is provided in ***Appendix N***.

The City also conducted a week-long training for all employees working with the camera (CCTV) truck. The training on the CCTV truck started on June 1, 2015 and included two days of classroom instruction and three days in the field with the software provider (Pipelogix) and the vendor who sold the truck to the City (CN Wood). The classroom training included seven men, all of whom took and passed the Pipeline Assessment Certification Program certification exam.

4.3.5.2 Infrastructure Repair and Rehabilitation

It is important that the City make timely repairs to the infrastructure of its MS4 in order to help reduce the discharge of pollutants from the MS4 to the receiving waters. The City is dedicated to giving priority to those projects discharging pollutants to impaired waters or that have other concerns related to the mapping and IDDE process. A schedule for implementation of repairs is developed and updated once the need for the repairs are established.

The SWCPA performs routine maintenance and any necessary repairs on the stormwater pumps on an annual basis.

The Engineering Department maintains a list of catch basins and manholes that require repair and assigns that work to either the Traffic and Road Maintenance Division or to independent contractors, as needed. During the Reporting Period, 149 catch basins and/or manholes were repaired. See ***Section 4.3.5.7*** for additional details on catch basin cleaning. A list of 2014 – 2015 catch basin / manhole repairs is presented in ***Appendix G***.

The City prioritized repair of approximately 40-50 stormwater system collapses in 2015. The number of collapses repaired this year is unusually high, which could have been a result of the winter weather or of increased awareness of problems due to implementing a catch basin inspection program.

The City also understands that the refinement of the standard operating procedures and good housekeeping practices for the management of the MS4 is essential to improving stormwater quality.

In 2014, the City purchased a camera truck which is used for implementing the IDDE program and for inspecting catch basins, manholes and stormwater piping. The truck was deployed in October 2014 and again in May 2015 after employees completed the necessary one-week training on the truck and equipment. Initially, the camera truck is being used to inspect areas identified as needing maintenance within the MS4 and has preliminarily identified several previously unknown connections to the MS4 system.

The City conducts inspections with the camera truck two days a week, covering approximately 200 feet of piping per day. As of the end of the Reporting Period, the City has videoed approximately 1,550 feet of piping. The City has prioritized the areas that it inspects with the camera truck based on flooding issues, complaints about collapsing areas and complaints about illicit discharges. See ***Section 0*** for further discussion on the progress of identifying illegal connections in the IDDE program.

Catch basin inspections also include inspecting the condition of catch basin "bells." Some City catch basins have bells (metal 90 degree bends covering catch basin outlets) to control floatables. Bells are hung on pins set in the side of catch basins. The City is planning to install bells on additional catch basins in parts of its MS4 where trash and floatables are a problem.

4.3.5.3 Roadway Maintenance

Roadway maintenance activities can directly affect water quality. An important task of roadway maintenance is keeping the highway drainage system functioning. The City is dedicated to ensuring that routine road maintenance is conducted frequently and that roadside ditches are cleaned and inspected periodically to verify that flow is not being restricted.

During the Reporting Period, the City repaved approximately 8 miles of roadway as part of its road maintenance program.

4.3.5.4 Sweeping

Properly swept streets are a key element to limiting stormwater impacts as sediment and debris can transport other pollutants into the stormwater system and because copious quantities of these materials can inhibit the proper function of MS4 components. By June 30, 2015 the City swept 8,604 miles of roadway and collected 1,810 tons of street material during the Reporting Period. Supporting documentation regarding the street sweeping activities for the Reporting Period can be provided upon request.

Sidewalk and curbside sweeping is performed weekly in the Downtown Special Services District (DSSD), along 9.5 miles of sidewalk and curbside. This work is coordinated and paid for by the DSSD. An estimated 23 tons of materials are removed on an annual basis as a part of these sidewalk and curbside sweeping activities. The DSSD also installed six cigarette butt disposal stations on lamp poles around the Columbus Park area and have since collected six pounds of cigarette butts.

The NPDES Permit prescribes very specific sweeping schedules for main lines, arteries, main roads and sidewalks in business and commercial districts, residential streets, other streets, and municipal parking

lots between March and November of each year. The City is currently categorizing their roadway system and developing schedules to meet these requirements. One goal is to compress the spring sweeping schedule between March 1st and June 30th to maximize the quantity of material collected at the end of the winter season.

4.3.5.5 Leaf Collection

In 2014, the City conducted its leaf pickup program from November 12th - December 5th. A total of 11,941 tons of leaves were collected.

According to the NPDES Permit, the City shall conduct city-wide leaf pickup program annually to be completed by December 15th. The City has established a procedure that breaks the City of Stamford down into three areas (see Appendix K of the SMP for a map of the leaf collection areas):

- Area #1 - north of the Merritt Parkway
- Area #2 - between Merritt Parkway and I-95
- Area #3 - south of I-95

Leaf pick-up typically begins in mid-November and completed by December 15th. The exact completion date depends on weather conditions and competing demands (snow removal and road salting for staff and equipment). It is important to note that the City finishes leaf pick-up even after snow fall. This process takes approximately four weeks of full time work for all available road maintenance crews.

4.3.5.6 Snow Removal

Timely snow removal and the appropriate application of de-icing materials is another key element to a successful SMP. The City follows the DEEP's *Best Management Practices (BMPs) for Disposal of Snow Accumulation from Roadways and Parking Lot.* A copy of this BMP is presented in Appendix L of the SMP. The purpose of the BMPs are to prevent accumulation of sand, other solids, and pollutants in the MS4 and in sensitive areas, such as streams and wetlands.

The NPDES Permit requires that the City implement and refine its SOPs, regarding its snow and ice control operations, to minimize the discharge of pollutants. Goals must be established for the optimization of chemical application rates through the use of automated equipment including zero velocity spreaders, anti-icing and pre-wetting techniques, implementation of pavement management systems and alternate chemicals.

The City is already well on its way to meeting these goals. The Highway Crew has recently purchased a truck for performing anti-icing using liquid calcium chloride (brine) to pre-treat bridges and elevated roadways, the most susceptible for freezing, as well as city streets with the highest traffic volume. Once the storm begins, patrols are sent throughout the City to monitor road conditions. Hills and intersections are spot-treated to minimize chemical usage. The City tracks chemical usage; however, given the variability in the amount of snow and ice that needs to be treated each year, it is difficult to set

goals for chemical optimization. As noted in ***Section 4.3.3.5***, the City intends to expand its use of brine trucks for pre-treatment in the future, which will help reduce the road salt usage.

The City continues to minimize its use of de-icing materials. This goal is being pursued in part to respond to shortages of de-icing materials in recent years. Salt is applied only twice for each storm – once at the beginning to prevent ice from binding and once at the end of prevent re-freezing. City representatives have proactively been pursuing discharges of private basement sump pumps into the right-of-way, rather than simply treating these areas with additional deicing materials.

Previously, snow was typically stockpiled on the gravel parking lot at the West Beach, where there are no catch basins in order to follow the DEEP's BMPs. The City is now considering relocating the snow piles to the paved areas at the West Beach parking lot and installing hay bales around and filters inside the catch basins to minimize the amount of silt and sand from entering the MS4. This proposed change in procedure will also allow for the City to more effectively dispose of the debris remaining as a result of the melted snow that is removed from the streets. The DEEP's BMPs will continue to be followed after the change in snow removal procedure is implemented.

4.3.5.7 Catch Basin Cleaning

Clogged or overloaded catch basins can lead to unwanted stormwater quality impacts. Catch basin sumps provide a first line of defense in improving stormwater quality. Maintenance and cleaning activities are important to the proper operation of each catch basin.

From July 1, 2014 through June 30, 2015, the City cleaned 1,946 of its approximately 11,000 catch basins. Approximately 3,124 tons of materials were removed from the basins during the Reporting Period (1,548 tons from April through June). The standard catch basin inspection and cleaning procedures and a sample catch basin inspection form is presented in ***Appendix H***.

The City continues to finalize an updated catch basin inspection, cleaning, and repair program. This program will identify and map each MS4 catch basin and determine flow direction, inspect its condition, determine the amount of sediment in each, clean catch basins with less than 50% of their sump capacity available, gather information over time on sediment accumulation rates, and develop a routine maintenance and cleaning schedule as prescribed by the NPDES Permit. To support this program, in 2014 the City purchased two new vac-trucks and a camera truck and hired four new equipment operators and a laborer for this program as well as to generally support its stormwater management and compliance activities (see ***Section 6.0***). The City is currently in the process of procuring an additional new vac-truck.

The City's Engineering Department has also retained the services of a contractor that cleans and videos all associated catch basins and storm drains prior to completing roadway paving projects.

Additionally, the City recently started implementing a software tracking program using field tablets for tracking catch basin inspection, cleaning and repair progress. The MS4 Front software was brought on-line in October 2014.

The approximate depth of sediment is measured before each catch basin cleaning. The City does not have records of previous catch basin cleanings, but in the future will use the depth of sediment observed and the time between catch basin cleanings to optimize the cleaning schedule.

4.3.5.8 Detention and Retention Ponds

Detention and retention ponds that become overloaded with sediment deposition can negatively impact stormwater quality in the City's MS4. MS4 Ponds are required to be cleaned out when solids levels reach 50% of design capacity.

A list of detention and retention basins was developed and the City will maintain an inspection schedule for them. To date, 77 basins have been identified. The basins are currently being added to the GIS mapping. Stormwater Management intends to begin inspections and maintenance work these basins during the next Reporting Period and is anticipating conducting an inspection at each pond prior to July 1, 2016.

4.3.5.9 Interconnected MS4s

Connections of other MS4s to the City's MS4 can affect the performance of the City's stormwater system and the quality of its discharges. There are no known interagency agreements between any other municipalities, institutions, or agencies and the City of Stamford. However, it appears that the following municipalities and agencies may be contributing stormwater to the City of Stamford's MS4:

- State of Connecticut (ConnDOT)
- Town of New Canaan, CT
- Town of Darien, CT
- Town of Greenwich, CT
- Town of Pound Ridge, NY

The City currently has a meeting scheduled with the Town of Greenwich, CT to coordinate on MS4 issues.

The Connecticut Department of Transportation ("ConnDOT") operates several roadways within the City, including: Interstate 95; the Merritt Parkway (Route 15); Long Ridge Road (Route 137); High Ridge Road (Route 104); and Route 1. The City's MS4 flows into ConnDOT's MS4 in some locations and ConnDOT's MS4 flows into the City's MS4 at other locations. The City communicates with ConnDOT, as needed, primarily when the City receives complaints of clogged ConnDOT storm drains. ConnDOT does not perform sweeping as frequently as the City does.

The City continues to investigate whether any of these entities have interconnected MS4s. If interconnected MS4s do exist, then interagency agreements will be developed detailing the responsibilities of the City of Stamford and each the interconnected MS4 municipality.

4.4 Illicit Discharge Detection and Elimination (IDDE) Program

IDDE will lessen the amount of pollutants discharging to local water bodies. Some people unknowingly dump pollutants into the storm drain or have illegal connections to the drainage system. The permit requires inspection of outfalls during dry weather conditions to determine whether illicit discharges are suspected and then to conduct extensive evaluation and follow-up to eliminate the illicit discharges that are found.

During the Reporting Period, the City continued to develop the legal authority to implement and enforce an illicit discharge detection and elimination (IDDE) program with the implementation of the MS4 Ordinance, No. 1153. See ***Appendix I*** for a copy of the ordinance, which can also be found on the City's website at http://www.stamfordct.gov/stormwater-management.

Additionally, City personnel continue to follow-up on known or suspected illicit discharges as well as any complaints associated with potential illicit discharges through calls to Traffic and Road Maintenance Division or reported via the City's stormwater management website.

The City has retained the services of Harbor Watch, a division of Earthplace, a not-for-profit organization, with the use of grant funding, for the collection of dry weather outfall samples as part of the IDDE screening requirements. During the Reporting Period, Harbor Watch collected fifteen (15) dry weather outfall samples at sixteen (16) locations. Only one of the locations was dry at the time of the monitoring event. Analytical data is being submitted to the DEEP via the NetDMR system as the laboratory data is received. A summary table of the analytical data for the IDDE dry weather outfall screening events is presented in ***Appendix J***. A copy of the stormwater monitoring reports (SMRs) for these samples will be provided upon request.

Now that better information has been developed on the number and locations of MS4 outfalls, it is the City's intention to get back on schedule by screening the remaining 30 of 46 outfalls (first 50%) along with beginning the second set of 50% of the known outfalls (44 remaining after two of the original 92 known were eliminated, see ***Section 4.2***) of dry weather outfall monitoring during the next Reporting Period. To achieve this goal, 53 known MS4 outfalls will need to be screened by the end of June 2016.

The City intends to complete IDDE investigations on 10% of the MS4 outfalls during the upcoming year in order to remain in compliance with the NPDES Permit and SMP requirements.

Through the City's efforts using the camera truck completed during the Reporting Period, they have identified multiple areas of concern that will receive priority for further IDDE investigations. A map identifying the areas of concern is presented in ***Appendix K***.

4.4.1 Illegal Connections

As a result of the inspections conducted by the camera truck crews, discussed in ***Section 4.3.5.2***, the City has identified several illegal connections to its MS4. The City continues to track and identify

illegal connections and is currently working with its Legal Department to identify the best course of action for having the illegal connections removed from its MS4.

4.5 Monitoring Program

In addition to the screening and monitoring activities associated with the IDDE Program (see ***Section 4.4***), the NPDES Permit calls for in-stream and stormwater outfall monitoring throughout the life of the permit.

4.5.1 In-Stream Surface Water Quality Monitoring

Under the terms of the NPDES Permit, ten (10) in-stream surface water monitoring locations were to be established. Each in-stream monitoring location was to be sampled three times per year during spring, summer, and fall rain events, and a dry sampling event during the summer, in accordance with the permit requirements. On March 5, 2014, the DEEP issued a Notice of Violation (NOV) to the City of Stamford for:

- Failure to establish the in-stream monitoring locations
- Failure to conduct the 2013 summer dry and wet weather in-stream sampling events
- Failure to conduct the fall wet weather in-stream sampling event

In response to this NOV, the City developed a list of the required ten (10) in-stream surface water sampling locations, which was approved by the DEEP. The City also solicited bids from environmental engineering consultants to provide stormwater monitoring services and to assist with the implementation of the NPDES Permit. Anchor Engineering Services, Inc. was hired in July 2014 to collect the necessary in-stream stormwater samples.

Since the issuance of the NOV, the City worked vigorously to obtain full compliance with the NOV by December 31, 2014. The City is now currently in compliance with the NPDES Permit, with respect to the in-stream monitoring.

To date, the following rounds of in-stream sampling have been completed:

Dry Weather Events	**Date(s) Sampled**
2013 Summer	7/22/2014
2014 Summer	7/31/2014

Wet Weather Events	**Date(s) Sampled**
2013 Summer	8/13/2014 & 10/8/2014
2014 Summer	9/25/2014
2013 Fall	10/8/2014 & 10/23/2014
2014 Fall	10/16/2014
2014 Spring	10/23/2014 & 11/6/2014
2015 Spring	4/20/2015

Analytical data is being submitted to the DEEP via the NetDMR system as the laboratory data is received. Summary tables of the analytical data for the in-stream sampling events are presented in ***Appendix L***. A copy of the SMRs for these samples will be provided upon request.

The previous NPDES Permit did not require the City to conduct in-stream monitoring therefore, no previous baseline data was collected to establish a trend line. Data collected during these initial rounds of sampling are being used to establish a baseline and will be compared to future monitoring results so as to evaluate the overall impacts of implementation of the SMP on the quality of the receiving streams.

4.5.2 Wet Weather Outfall Monitoring – Previous Permit

The NOV issued in March 2014 also cited the City for failure to collect discharge from outfall locations at six representative locations, as required by the previous NPDES Permit. In response to this item, the City hired Fuss & O'Neill, Inc. to conduct the outfall monitoring for 2012. These outfall samples were collected in August 2014 and have been submitted to the DEEP. Summary tables of the analytical data for the wet weather outfall monitoring and copies of the SMRs for these samples will be provided upon request.

4.5.3 Wet Weather Outfall Monitoring – Current Permit

The NPDES Permit requires the City to sample all known MS4 outfalls within the first two years and again during the second two years of the permit term. To date, over half of the wet weather outfalls were sampled; 47 of the 90 outfall locations were sampled. Sampling did not occur at all of the 90 known outfall locations prior to the end of the second year of the NPDES Permit because of the following:

- There were only three rain events sampled since December 2014 (the time at which Anchor Engineering was given the notice-to-proceed) due to the timing of the qualified rain events and the lab restrictions for holding times;
- Of the 90 known outfall locations, 13 were identified in tidal areas and will need to be collected during low tide (the three sampled rain events all occurred during high tide, when the outfalls were under tidal influence, and would not have been a representative sample if collected); and,
- Three of the outfalls were identified as dry, or no discharge, during the rain events and will require maintenance prior to collecting samples at these outfalls.

The no-discharge outfall locations were relayed to the City so that they could investigate the problem and rectify the situation.

It is anticipated that the remaining 43 known outfall locations will be sampled during the next Reporting Period, which will move the City back into compliance with the NPDES Permit requirements for wet weather outfall monitoring.

Analytical data is being submitted to the DEEP via the NetDMR system as the laboratory data is received. Summary tables of the analytical data for the wet weather outfall monitoring are presented in ***Appendix M***. A copy of the SMRs for these samples will be provided upon request.

4.6 Legal Authority

The City has finalized an MS4 Ordinance addressing stormwater management issues that affect NPDES Permit compliance and Zoning Regulations regarding stormwater management. The modification to the Zoning Regulations is in progress and is anticipated on being completed, approved and implemented by July 2016. The legal authorities that were established include:

- The authority to administer the stormwater management program and all elements of the SMP.
- The authority to control the contribution of pollutants to the MS4 by permittees registered under the DEEP's *General Permit for the Discharge of Stormwater Associated with Industrial Activity*; by other commercial, industrial, municipal, institutional, or other facilities; and from any site that may affect water quality to the MS4.
- The authority to establish ordinances, bylaws, regulations, or other mechanisms to require developers and construction site operators to maintain consistency with the *Guidelines for Soil Erosion and Sedimentation Control*, the *Connecticut Stormwater Quality Manual*, and all DEEP stormwater discharge permits issued with the City of Stamford.
- The authority to identify existing regulations that may represent barriers to low impact development (LID) practices to minimize the quantity of impervious cover.
- The authority to perform inspections, surveillance, and monitoring related to the MS4.
- The authority to establish ordinances, bylaws, regulations, or other mechanisms to ensure a developer's or construction site operator's proposed use of LID practices by right or exception.
- The authority to revise regulations to eliminate or reduce potential barriers to LID.
- The authority to perform adequate inspection and maintenance activities to optimize the performance and pollutant removal efficiency of privately-owned retention or detention ponds that discharge to or receive discharge from the City's MS4.
- The authority to control through interagency or inter-jurisdictional agreement, the contribution of pollutants between the City's MS4 and MS4 owned or operated by others.
- The authority to prohibit by statute, ordinance, rules and regulations, permit, easement, contract, or any other means, illicit discharges to its MS4; to require the removal of these discharges; and to assess fines, penalties or cost recoupment for violations.
- The authority to control by statute, ordinance, rules and regulations, permit, easement, contract, or any other means, the discharge of spills into its MS4; to prohibit the dumping and disposal of materials into its MS4; and to assess fines, penalties or cost recoupment for violations.

The schedule for establishment of these legal authorities is documented in the NPDES Permit. On March 20, 2015, a final MS4 Ordinance, Ordinance 1153, adding Chapter 201 to the City Charter, became effective and is included in ***Appendix I.*** Draft changes to the Zoning Regulations have been prepared and are included in Appendix I of the SMP. These documents have been developed to establish the necessary legal authorities. The public must be provided adequate notice and an appropriate amount of time to participate in the establishment in this legal authority. It is the City's intention to establish these legal authorities as soon as possible.

To comply with the NPDES Permit, the City is required to have these revisions approved by the Zoning Board and formally incorporated into the Zoning Regulations. The Modifications to Sections 3 and 15 of the Zoning Regulations of the City of Stamford is underway and the modifications were sent out to referral to various agencies for comment in the spring of 2015. It is anticipated that the Zoning Regulations will be completed, approved and implemented by July 2016.

Additionally, during the Reporting Period, the City finalized and began implementing a new ordinance, amending Section 214-9 of the City Charter, for addressing discharges associated with private sump pumps and roof leaders onto the City's streets. During the winter these discharges caused ice build-up, created hazards, and required additional salt treatment. This ordinance categorizes these discharges as an illegal activity and it was put into effect on April 26, 2015. The ordinance now states that: "*No person shall construct or cause to be constructed or allow to remain any spout or drain from any building or any drainage in such a manner that water, soil, gravel or other debris therefrom will discharge upon and over any sidewalk or roadway within the city*". The Traffic and Road Maintenance Division worked with and sent letters to five residential property owners, who have taken action to install on-site retention for their sump pumps to be in compliance with the ordinance. The Traffic and Road Maintenance Division will continue to evaluate these areas for icing during the winter seasons.

On January 5, 2015, seven (7) City employees were nominated and appointed as Civil Citation Officers. Any of the City's Civil Citation officers, in addition to the Stamford Police Department, can issue a Civil Citation for violations which can include, but not be limited to, dumping any pollutants into any storm drain or conveyance structure.

To date, the City has not had to issue any stormwater citations. However, several verbal warnings were given as part of the educational program for implementing the City's new stormwater ordinance.

5.0 SUMMARY OF PROPOSED SMP MODIFICATIONS

The SMP was updated and submitted to the DEEP on September 2, 2014. No modifications to the submitted SMP are proposed at this time.

6.0 PROGRAM RESOURCES ANALYSIS

6.1 Fiscal Analysis

During this Reporting Period of the current NPDES Permit, the City continued to make efforts to secure budget, staffing, and resources necessary to develop and implement the SMP, to comply with the NPDES Permit requirements, and to improve the overall quality of stormwater discharging from its MS4. The City is committed to identifying these details and adequately funding them to achieve compliance with the NPDES Permit as soon as possible.

Some line items in the City's Capital and Operating Budgets are obviously related to MS4 stormwater compliance, such as the "Environmental Compliance" and "Stormwater Management". However, there are other line items for infrastructure and other public improvement projects (drainage, catch basin, storm lines, etc.), special projects, and operating expenses that will result in direct improvements to stormwater runoff quality and the quality of discharge from the City's MS4. For example, the closure of the old Scofieldtown Road Landfill is being performed for specific reasons, but should have the added benefit of improving stormwater quality in these areas of the City.

There are also budget line items for vehicle, equipment, and information technology upgrades throughout the City which include Departments with responsibility for stormwater quality improvements and implementation of the SMP.

The Traffic and Road Maintenance Division has a total operating budget of $7,401,173 for 2015-2016, including $1,247,712 specifically for MS4 stormwater management, $241,318 for leaf collection, $1,043,703 for storm management, and $4,819,570 for traffic and road maintenance, including street sweeping, pothole repairs, debris removal and infrastructure improvements. This Traffic and Road Maintenance Division budget represents a 4% decrease compared to the budget for 2014 - 2015.

In addition, other Departments, such as Engineering (catch basin and manhole improvements and replacement program), Land Use (environmental reviews), Solid Waste (motor oil recycling and HHW events), SWPCA (stormwater pump operation), and Administration provide services through their capital and operating budgets.

The City's Annual Capital and Operating Budgets for 2015-2016 are available on the City's website at http://www.stamfordct.gov/.

It is anticipated that additional funding will be required for the following monitoring activities:

- Wet weather sampling of each identified MS4 outfall
- IDDE screening and investigations

Additional funding, associated with additional staffing discussed in the next section of this Annual Report, will also be required in coming fiscal years.

6.2 Staff and Resources

The City transferred responsibility for many of the stormwater management tasks and MS4 permit compliance from the SWPCA to the Traffic and Road Maintenance Department with the issuance of the NPDES Permit in June 2013. While evaluating the permit requirements, the Traffic and Road Maintenance Supervisor and Pollution Prevention Team Coordinator, Thomas Turk, began to assess the staff and resources necessary to achieve and maintain compliance. Since Traffic and Road Maintenance Department took over responsibilities for implementing the MS4 permit, several new staff members have been hired, including:

- Four heavy equipment operators to complete field work including catch basin identification, investigation, cleaning, and maintenance. These operators are also responsible for assisting with sweeping, snow removal, leaf pickup and other activities designed to improve the quality of stormwater runoff.
- One laborer to assist the equipment operators, as needed.

Over the course of the Reporting Period, the Stormwater Department assessed these new staffing levels as the SMP was being implemented and additional schedules and goals are continuously being generated to meet the demands of the City's MS4.

In addition to these individuals, the Traffic and Road Maintenance Division maintains a work force of skilled operators, laborers, administrative, support, and management personnel that provide many of the direct services outlined in this report, such as: catch basin maintenance, roadway sweeping, leaf pickup, snow removal, and infrastructure improvements and maintenance. They are also available to assist on other stormwater management projects, as directed.

Several other City Departments provide personnel to support compliance with the NPDES Permit and implementation of the SMP, including Engineering, Land Use, Planning, Zoning, Environmental Protection, Information Technology (GIS), SWPCA, Solid Waste, Recreation and Leisure Services, Parks, Parking & Transportation, Fleet Maintenance, Legal, and the Fire Department.

During the next year of implementation of the SMP and the new municipal stormwater ordinance and the changes to the Zoning Regulations, City Departments will be better able to assess the adequacies of their staffing levels with the added MS4 permit compliance requirements. As discussed during the compliance audit conducted by the EPA (see ***Section 2.3.1***) and the City's own assessments, it is anticipated that additional staffing may be necessary in the following areas:

- Information Technology – There is a substantial amount of stormwater mapping and information management to be set up and managed, particularly during the first several years of the permit. The City needs to finalize the outfall identification mapping, and confirmation process and begin the DCIA analysis.
- Engineering and Land Use Offices – Additional staff is required to perform technical review of land use permits due to volume and complexity of work. Performing site inspections before permit issuance, during construction, and prior to Certificate of Occupancy are a critical component for compliance.

- Stormwater Management Department – Additional staff is required (Heavy Equipment Operators) to operate vacuum trucks, the camera truck, and equipment to maintain storm drainage piping. The addition of an Office Support Specialist (OSS) is required in the Stormwater Management Department to assist with data collection, record keeping, and correspondence requirements. New types of data are being generated in the field and it must be properly managed so that it can be put into effective use.

Once the revised Zoning Regulations have been enacted, there will be a need for additional construction site inspections, retention and detention basin inspections and maintenance, stormwater infrastructure (swales, ditches, storm drain lines, etc.) inspections and maintenance, post-construction inspections and maintenance, and illicit discharge detection and elimination program implementation. Additional staffing will be necessary to complete these tasks; the City's ability to complete these activities in the past has been hampered due to limited staff resources.

The City has procured new equipment to assist in the implementation of the MS4 Permit and its SMP. One camera truck and one new vac-truck were procured by the Traffic and Road Maintenance Division during the Reporting Period to facilitate catch basin inspection and cleaning operations.

As mentioned in ***Section 4.3.5.7***, the City recently started implementing a software tracking program using field tablets for tracking catch basin inspection, cleaning and repair progress. The MS4 Front software was brought on-line in October 2014.

Additional software and equipment needs will be assessed during the coming year and requested in the City's next fiscal year budget.

APPENDIX A

DEFINITIONS

DEFINITIONS

"BMPs" or "Best Management Practices" means either structural or engineered control devices and systems (e.g. retention ponds) to treat polluted stormwater, as well as operational or procedural practices (e.g. minimizing use of chemical fertilizers and pesticides).

"Commissioner" means the commissioner as defined by section 22a-2(b) of the Connecticut General Statutes.

"CTDEEP" or "DEEP" means the Connecticut Department of Energy and Environmental Protection, whose mission is to conserve, improve and protect the air, water and other natural resources and environment of the State of Connecticut while fostering sustainable development.

"DCIA" or "Directly Connected Impervious Area" means that part of the total impervious area that is hydraulically connected to the City of Stamford's MS4. DCIA typically includes streets, sidewalks, driveways, parking lots, and roof tops. DCIA typically does not include isolated impervious areas that are not hydraulically connected to the MS4 or otherwise drain to a pervious area.

"EPA" means the United States Environmental Protection Agency, whose mission is to protect human health and the environment.

"EPB" means the City of Stamford's Environmental Protection Board.

"GIS" or "Geographic Information System" is a system designed to capture, store, manipulate, analyze, manage, and present all types of spatial or geographical data.

"HHW" or "Household Hazardous Waste" means post-consumer waste which qualifies as hazardous waste when discarded. It includes household chemicals and other substances for which the owner no longer has a use, such as consumer products sold for home care, personal care, automotive care, pest control and other purposes.

"IDDE" or "Illicit Discharge Detection and Elimination" means a program to detect and eliminate existing illicit discharges and to prevent future illicit discharges.

"IDDP" or "Illicit Discharge Detection Protocol" means a protocol established to identify, prioritize and investigate separate storm sewer catchments for suspected illicit discharges of pollutants.

"Illicit Discharge" means any discharge to the MS4 that is not composed entirely of stormwater, with the exception of discharges authorized by another NPDES Permit, or discharges described in the "Non-Stormwater Discharges" section (Section 4(A)(3)) of the permit.

"Impaired Waters" means those surface waters of the state designated by the Commissioner as impaired pursuant to Section 303(d) of the Clean Water Act and as identified in the most recent State of Connecticut Integrated Water Quality Report.

"LID" or "Low Impact Development" means land planning and engineering design approach to manage stormwater runoff. LID emphasizes conservation and use of on-site natural features to protect water quality.

"MS4"' or "Municipal Separate Storm Sewer System" means a conveyance, or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains, which is or are (i) owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as sewer districts, flood control districts or drainage districts, or similar districts, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the state; (ii) designed or used for collecting or conveying stormwater; (iii) which is not a combined sewer; and (iv) which is not part of a POTW.

"NOV" or "Notice of Violation" means a notice provided by the CTDEEP informing the permittee that a violation of law has occurred.

"NPDES Permit" or "National Pollutant Discharge Elimination System Permit" means the program authorized by the Clean Water Act which controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

"Outfall" means the discharge point of a waste stream into a body of water.

"PHFs" means pesticides, herbicides and fertilizers.

"Point Source" means any discernible, confined and discrete conveyance (including, but not limited to any pipe, ditch, channel, tunnel, conduit, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft) from which pollutants are or may be discharged.

"POTW" or *"Publicly Owned Treatment Works"* means sewage treatment plants.

"Reporting Period" refers to the period of time that the Annual Report is based on. In this report it pertains to July 1, 2014 through June 30, 2015.

"SMP" or "Stormwater Management Plan" sets forth a program to provide for the implementation of specific control measures, stormwater monitoring, illicit discharge detection and elimination, and other appropriate means to control the quality of the authorized discharge.

"SP&R Plan" or "Spill Prevention and Response Plan" means a plan to prevent, contain and respond to spills entering the MS4.

"Stormwater" means waters consisting of rainfall runoff, including snow or ice melt during a rain event, and drainage of such runoff.

"SWPCA" or "Stamford Water Pollution Control Authority" controls the City of Stamford Water Pollution Control Facility, which processes wastewater from the City and the neighboring Town of Darien, and discharges clean water into the East Branch of Stamford Harbor.

APPENDIX B

STORMWATER MANAGEMENT PLAN SUMMARY TABLE

Annual SMP Summary Table

July 1, 2014 - June 30, 2015

Activity Description	# Actions Scheduled	Status Complete / Incomplete as of June 30th	# Actions Completed	Comments on Activities	Public Comments on Activity
1. Education					
1.1 City and Government					
1.1.1 Training	As needed	Complete	4	City Employee Stormwater related training was conducted on 7/11/2014. All employees working at city-owned facilities receive annual training on stormwater related items. Additional MS4 stormwater training was performed on 10/23/2014. Spill Response training were performed on 6/16/2015 and 6/17/2015. See ***Appendix N*** for a copy of the sign-in sheets for each training event.	
1.2 Public					
1.2.1 Annual Information Meeting	Annually	Complete	1	2015 meeting was held on 8/3/2015.	
1.2.2 Annual SMP Review and Comments	Annually	Complete	1	SMP was submitted to DEEP on 9/2/2014. SMP was reviewed during the course of implementation in 2014-2015 and no revisions are anticipated at this time.	
1.2.3 HHW Collection	At least Annually	Complete	1	HHW Collection held on 7/19/2014 at the Rippowam Middle School. Stamford citizens may also use HHW collection days in seven neighboring towns each year.	
1.2.4 Pet Waste Control	As needed	On-Going	As needed	3,550 educational pamphlets were distributed to dog owners at time of licensure. Another 6,000 pamphlets were ordered. Materials were purchased for 50 dispensers. Locations have been identified for installation of the dispensers and the installation is in progress. Dispensers are emptied on an as needed basis.	
1.2.5 Distribution of Educational Information	As needed	Complete	On-going	Educational pamphlet on lawn care, pesticides, and LID was distributed to all Stamford contractors. WPCA conducted tour for 888 people which included reference to stormwater management and "What is Your Storm Drain IQ". The City has continued to maintain and update the stormwater section of the City's website.	
1.2.6 Catch Basin Medallions	As needed	Incomplete	-	The City ordered and has received 7,000 catch basin medallions for placement on catch basins throughout the city.	
2. Public Involvement					
2.1 Mill River Collaborative (MRC)	On-going	Complete	5,350 volunteer hours	Making improvements to the Mill River Park through joint efforts the MRC.	

Annual SMP Summary Table

July 1, 2014 - June 30, 2015

Activity Description	# Actions Scheduled	Status Complete / Incomplete as of June 30th	# Actions Completed	Comments on Activities	Public Comments on Activity
2.2 SoundWaters in Cove Park	On-going	On-Going	-	The City is in the process of teaming with SoundWaters for conducting an educational program. SoundWaters is currently exploring options for purchasing fixed monitoring stations for the Long Island Sound river estuaries. They are reviewing specifications for essential monitoring parameters. These monitoring stations may help the City supplement data in the event that in-stream sampling is no longer conducted.	
2.3 Educational Outreach	On-going	On-Going	1	An educational outreach program event was conducted at the Dolan Middle School for four classes, including 168 students. The City is in the process of collaborating with other middle schools throughout the City to expand this outreach program.	
2.4 Harbor Watch	On-Going	On-Going	-	Harbor Watch, a division of Earthplace, a not-for-profit organization, was retained by the City, using grant funding, to conduct the dry weather outfall sampling as part of the IDDE program	
3. Mapping					
3.1 Initial Outfall, Sampling, Roadway, Receiving Waters, Watersheds	On-going until all are identified	On-Going	-	Stormwater mapping is approximately 60% complete. Approximately 900 potential new outfalls were identified. The City is currently in the process of confirming the accuracy of the outfall locations. Several of the potential new outfalls were identified as duplicates and others were noted as inlets or discharges under state DOT control.	
3.2 IDDE Mapping - Infrastructure, Findings, Data, Activities, Projects	On-going until all are identified	On-Going	-	To be completed by 06/03/2016	
3.3 Establish DC IA	25% of total area per year	On-Going	-	To be completed by 06/03/2017	
4. Infrastructure Operations & Maintenance					
4.1 Infrastructure Repair & Rehab	On-going	On-going	As needed	A schedule for implementation of repairs is maintained by the Engineering Dept and updated as needed / as items are completed.	
4.2 Roadway Maintenance	On-going	On-going	As needed	The City is dedicated to ensuring that routine road maintenance is conducted frequently and that roadside ditches are cleaned and inspected periodically to verify that flow is not being restricted. During the Reporting Period, the City repaved approximately 8 miles of roadway as part of its road maintenance program.	
4.3 Street Sweeping	See ***Appendix F***	On-going	8,604	During 2014-2015, the City swept over 8,604 miles of streets and collected over 1,810 tons of non-leaf materials.	

Annual SMP Summary Table

July 1, 2014 - June 30, 2015

Activity Description	# Actions Scheduled	Status Complete / Incomplete as of June 30th	# Actions Completed	Comments on Activities	Public Comments on Activity
4.4 Sidewalk Sweeping	See Appendix K of the SMP	On-going	-	Sidewalk sweeping occurs in the downtown area, as described in the SMP and is coordinated and paid for by the DSSD (downtown special services district). An estimated 23 tons of materials are removed on an annual basis. The DSSD also installed six cigarette butt disposal stations on lamp poles around the Columbus Park area and have since collected 6 pounds of cigarette butts.	
4.5 Leaf Collection	At least Annually	Complete	3 Areas	Leaf collection was completed for 2014 by December 5 and approximately 12,000 tons of leaves and debris were collected.	
4.6 Snow Removal	As needed	Complete	-	Snow removal completed as necessary for 2014 and 2015.	
4.7 Catch Basin Cleaning	See ***Appendix G***	On-going	1,946	In 2014-2015, the City cleaned 1,946 of it's ~11,000 catch basins and removed approximately 3,124 tons of material.	
4.8 City Owned Detention & Retention Pond Inspections	Annually	On-going	-	The City compiled list of the detention and retention ponds (77) that discharge to the MS4 and is in the process of scheduling inspections for each pond.	
4.9 Interconnected MS4s	On-going	On-going	-	There are no known interagency agreements between any other municipalities, institutions, or agencies and the City of Stamford. The City is investigating with adjacent communities and ConnDOT.	
5. Stormwater Monitoring					
5.1 Wet Weather In-Stream	3 samples per location per year	On-going	6	Wet weather in-stream surface water sampling was performed for six events (2013 summer & fall, 2014 spring, summer & fall, and 2015 spring). Summary tables of the results are provided in ***Appendix L*** .	
5.2 Dry Weather In-Stream	1 sample per location per year	On-Going	2	Dry weather in-stream surface water sampling was performed for two events (2013 and 2014). Summary tables of the results are provided in ***Appendix L*** .	
5.3 Wet Weather Outfall	All outfalls within first two years	On-going	52% Completed	To date, over half of the wet weather outfalls were sampled; 47 of the 90 identified outfall locations were sampled. It is anticipated that the remaining 43 known outfall locations will be sampled during the next Reporting Period, which will move the City back into compliance with the NPDES Permit requirements for wet weather outfall monitoring. Summary tables of the results are provided in ***Appendix M*** .	
5.4 Dry Weather Known Outfalls	See IDDE Outfall Screening	On-going	-	See IDDE Outfall Screening	
5.5 Dry Weather New/Unknown Outfalls	As needed	-	-	See Mapping 3.1	
6. IDDE					
6.1 Outfall Screening (Pre-IDDP)	25% of known MS4 outfalls per year	Incomplete	33% Completed	Harbor Watch was able to collect 15 of the 46 dry weather outfall samples at 16 locations. Summary tables of the results are provided in ***Appendix J***	

Annual SMP Summary Table

July 1, 2014 - June 30, 2015

Activity Description	# Actions Scheduled	Status Complete / Incomplete as of June 30th	# Actions Completed	Comments on Activities	Public Comments on Activity
6.2 IDDP	5% of top 20%; starting year 2	-	-	Updated schedule proposed in 2014 SMP. Through the City's efforts using the camera truck completed during the Reporting Period, they have identified multiple areas of concern that will receive priority for further IDDE investigations.	
6.3 Outfall Verification (Post-IDDP)	As needed	-	-	No post-IDDP efforts completed at this time.	
7. Legal Authority					
7.1 Permits	As needed	On-Going	As needed	All permits to be signed off by each individual City department, including: Coastal Management, Environmental Protection, Flood Plain, Traffic Dept, Engineering Dept, DOT, and Zoning.	
7.1.1 Zoning Department	As needed	On-Going	As needed	The City continues the process of changing the zoning regulations per the requirements of the General Permit and expects to have the changes completed by July 2016.	
7.2 Ordinances					
7.2.1 Stormwater Management	As needed	On-going	As needed	On March 20, 2015, a final MS4 Ordinance, Ordinance 1153, adding Chapter 201 to the City Charter, became effective and is included in ***Appendix I*** .	
7.2.2 LID	As needed	On-going	As needed	The proposed changes to the zoning regulations will ensure that LID practices are allowable. There are no known zoning, site planning or street design regulations that would be an impediment to using LID practices.	
7.3 Site Review, Inspection and Monitoring Activities	As needed	On-going	As needed	The City's staff performs site visits when the project is in close proximity to a wetland or other water body. Current staffing levels limit the opportunities for site inspections to only those projects with the greatest potential for impact to stormwater quality. Site visits frequently occur prior to the issuance of a Certificate of Occupancy (CO). ***Appendix F*** provides a table of the services provided by the EPB, including permitting reviews and site inspections.	
7.4 Eliminate Barriers	On-going	On-going	-	The City has well-established procedures for coordinating municipal departments review and approval of land disturbances and development projects.	
7.5 Private Retention/Detention Ponds	On-going	On-going	-	Access to privately-owned detention and retention ponds is addressed in the Stormwater Ordinance.	
7.6 Interconnections	On-going	On-going	-	Research by City staff has revealed that no formal interagency stormwater agreements exist at this time. If agreements are deemed necessary, they will be discussed in the next annual report. Historically, ConnDOT maintains all State roads.	
8. Monitor PHFs					
8.1 City Parks	On-going	On-Going	-	In 2014-2015, the City did not fertilize park green space.	

Annual SMP Summary Table

July 1, 2014 - June 30, 2015

Activity Description	# Actions Scheduled	Status Complete / Incomplete as of June 30th	# Actions Completed	Comments on Activities	Public Comments on Activity
8.2 PHF Use in Ball Fields	On-going	On-Going	-	In 2014, the City applied a total of 1,530 pounds of nitrogen to the ball parks.	
8.3 Sterling Farms Golf Course Nitrogen Monitoring	On-going	On-Going	-	Total Nitrogen applied in 2014: 4,617 tons	
8.4 E. Gaynor Brennan Municipal Golf Course Nitrogen Monitoring	On-going	On-Going	-	Total Nitrogen applied in 2014: 3,637 tons	
9. Other Program Items					
9.1 Establish SPRPs	As needed	On-Going	-	Site-specific SPRPs have been developed for Town facilities on Magee Avenue, the Town Yard, the Police Department, and the SWPCA Facility. Other City facilities and private properties in the City are covered by the Fire Department's Standard Operating Guidelines. The City reviewed these plans during the Reporting Period and is in the process of coordinating between all of the departments for the development and implementation of a city-wide SPRP	
9.2 Review & Modify Current SMP	Annually	-	-	The City's SMP was submitted to the DEEP in September 2014. No modifications are proposed at this time.	

HHW - Household Hazardous Waste
SMP - Stormwater Management Plan
DCIA - Directly Connected Impervious Area
BMP - Best Management Practices
LID - Low Impact Development
PHF - Pesticides, Herbicides and Fertilizers
SPRP - Spill Prevention and Response Plan

APPENDIX C

2014-2015 ANNUAL REPORT MEETING

Stormwater Management Department

Annual Public Meeting - Monday, August 3, 2015 - 7:00pm

Sign In Sheet

Name:

1. Mike G. Papa
2. Nicki Cantatore
3. John Puglisi
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____

Questions/Comments provided and discussed during the August 3, 2015 City of Stamford Stormwater Management Department Annual Public Meeting. Answers were provided during the meeting, as appropriate.

Comment: Develop a strategic measure – create a task force to prevent pollution from entering into the pipe.
Response: The City of Stamford currently has a Stormwater Pollution Prevention Team, which was established as a requirement to the NPDES permit, who is dedicated to educating the public and monitoring, maintaining and cleaning the stormwater management system throughout the City.

Comment: Allow homes or groups of homes/condominiums associations to build a constructed wetlands system, and be able to pay a reduced rate of the WPCA biennial fees.
Response: The WPCA is a separate entity than the Stormwater Management Department and this idea may be better suited if it is presented to them. Currently, the Stormwater Management Department does not have separate fees for the management of stormwater.

Comment: Request the City of Stamford to invest in every home via giving a sink drain basket strainer, and a solids interceptor to ensure pollution is reduced and the City pipes aren't clogged.
Response: This item should be discussed with the WPCA as they are a separate entity than the Stormwater Management Department. The Stormwater Management Department does not manage waters that enter the sewer system, only waters that enter the stormwater management system.

Comment: With 14,500 tons of nitrogen used on the Stamford golf courses in 2013, there is definitely an area of opportunity as this is at the same level of salt (15,600 tons) used on the roadways.
Response: There was a typo in the 2013-14 Annual Report. The City golf course used ~14,000 POUNDS of nitrogen in 2013-14.

Question: Regarding low impact development (LID), are we working on this strategy? This will help Long Island Sound in Stamford.
Response: Draft changes are in progress to the Zoning Regulations to reduce the discharge of pollutants to the maximum extent practicable to meet the goal of maintaining post-development runoff conditions similar to pre-development runoff conditions.

Comment: The professional strategy of our Connecticut agricultural experiment station on lawn care fails to address the importance to develop the soil structures responsible to better hold the air, water, nutrients and carbon increase the C.E.C. for the benefit of the plant and our waterways. Not all the nutrients are in the CT soils and it is important to test the carbon-to-nitrogen ratio's and water soluble tests to be able to monitor the balances in the ecology. Most of our CT soils are dir(?) only through managing the ecology from A to Z. We will grow healthy turf, disease and insect resistant, and reduce the pollution. Unless we stop the moron approach of N.P.K. we will never make progress.
Response: So noted.

APPENDIX D

2014-2015 SPILLS OF FIVE GALLONS OR MORE

City of Stamford - No. CT0030279

Spills and Leaks 7/1/14 - 6/30/2015

Date	Address / Location	Material Spilled	Quantity	Receiving Stream	Notes
10/29/2014	21 Broad St	Hydraulic Fluid (City Sweeper)	Appx. 25 Gal.	Rippowam River	City of Stamford sweeper ruptured hydraulic line on roadway. Spill was contained and did not enter storm drain system. Sorbent material and sand applied to area of spill. Area swept on 10/29/15.
12/12/2014	21 / 42 Orange St.	Santary Discharge - WPCA	Appx. 500 Gal.	Stamford Harbor / Long Island Sound	WPCA jetted sanitary line from Ursula Place; resulted in +/- 500 gal. of sanitary discharge to adjacent CB's. WPCA reported spill as required by law. Stormwater Mgt. depart assisted by cleaning all catch basins which could be accessed on Orange St.
4/9/2015	128 Magee Ave.	Unknown (suspected fertilizer)	Appx. 5 Gal.	Stamford Harbor / Long Island Sound	Service request #W462841-040815. Service request indicated anti freeze spill in roadway. Inspected and verified substance not anti-freeze. Contacted Fire Department / Haz Mat team. Spill suspected to be fertilizer from landscaping business at 128 Magee Ave. Spill treated with speedy dry sorbent and swept up 4/9/15. Did not enter storm drain system.
4/29/2015	10 Farms Rd.	Hydraulic Fluid (City Sweeper)	Appx. 25 Gal.	Rippowam River	City of Stamford sweeper ruptured hydraulic line on roadway. Spill was contained and did not enter storm drain system. Sorbent material and sand applied to area of spill. Area swept on 4/29/15.
5/15/2015	4 Old Barn Road South	Diesel fuel, anti freeze, brake fluid, engine oils, other misc. vehicle fluids, and associated fire fighting waters.	30 Gal. diesel fuel, 20 Gal. of other misc. vehicle fluids.	Rippowam River	School Bus fire occurred on top of catch basin. Diesel fuel and misc. vehicle fluids entered the storm drain system. Fire Dept. Haz mat team and DEEP on site as part of spill response. Spill was traced to river. Boom deployed in river, sand and sorbent used on roadway, catch basins and street cleaned by certified Haz Mat contractor.

City of Stamford - No. CT0030279

Spills and Leaks 7/1/14 - 6/30/2015

Date	Address / Location	Material Spilled	Quantity	Receiving Stream	Notes
5/21/2015	764 Hope St.	Diesel Fuel	5 Gal.	Noroton River	Small spill of diesel fuel occured on a steep hill on Harford Ave., adjacent to Hope St. Spill appeared to have originated from City of Stamford Highways personnel conducting asphalt patch repair work. A review of standard operating procedures and spill response with all Highways personnel was conducted in mid-June, 2015.
5/28/2015	612 Scofieldtown Rd.	Heating Oil	Unknown - >5 Gal.	Rippowam River	Heating oil fuel tank located at Smith House (614 Scofieldtown Rd.) was being remeidated and soil boring work ruptured the fuel tank. An unknown amount of fuel oil appeared to have leached through the soil (perhaps with assistance from recent rainfall)and entered the pond at the Scofieldtown yard site. Fire Department / Haz Mat team was called in. Booms deployed and efforts made to contain the oil in the pond, which was in the process of being drained as a part of lanfill capping DEEP consent order. No impacts to downstream watercourses.

Stamford Fire Rescue

Hazmat List by Incident

Alarm Date Between {07/01/2014} And {06/30/2015} and Release Amt >= 5 and Release Unit = "12"

Chemical Name	Container	Qty Released	Released Into
15-0001956 03/07/2015 14:14:17			
410 Combustible/flammable gas/liquid condition, other			
479 HOPE ST			
diesel		15 Gallons	
15-0003885 05/15/2015 08:23:58			
131 Passenger vehicle fire			
Old Barn RD S & Cold Spring RD			
Diesel		30 Gallons	
Hydraulic Fluid		20 Gallons	
15-0004265 05/28/2015 09:40:34			
413 Oil or other combustible liquid spill			
ROCKRIMMON RD // SCOFIELD RD			
fuel oil	Tank or silo	5 Gallons	Water and ground

APPENDIX E

2014-2015 PESTICIDE, FERTILIZER AND HERBICIDE USE

2014-15 Nitrogen Application from Fertilizer

Sterling Farms Golf Course

Location	Fertilizer Type	lbs N (avg) / 1,000 SF	acres	lbs N
Greens	Granular	2.25	5	490.1
	Liquid	1.25	5	272.3
Tees	Granular	3	3.5	457.4
	Liquid	0.5	3.5	76.2
Fairways	Granular	1.75	25	1,905.8
	Liquid	0.25	25	272.3
Rough	Granular	1.75	15	1,143.5
Total			**48.5**	**4,617.4**

E. Gaynor Brennan Municipal Golf Course

Location	Fertilizer Type	lbs N / 1,000 SF	acres	lbs N
Greens	Granular	1.5	3	196.0
	Liquid	1	3	130.7
Tees	Granular	2.5	2	217.8
	Liquid	0.5	2	43.6
Fairways	Granular	2	20	1,742.4
	Liquid	0.5	20	435.6
Rough	-	2	10	871.2
Total			**35**	**3,637.3**

TOTAL 2014-15	**8,254.6**
Total 2013-14	9,082.3
Percent Change	**-9.1%**

Athletic Field Fertilizer use only, we do not use any Fertilizers on park Green space

1st application April 2nd Dimension application 18-0-40- 60 bags total used, each bag is 50lbs

2nd application May 2nd Propendi- 60 bags total used, each bag is 50lbs

3rd application Sept Fertilizer- 60 Bags total used, each bag 40lbs

Little League/Softball/Baseball

Troy #1 Field and Troy # Field 2- Cove

Federal #1 Field and Federal #2 Field

Kane Ave Field

Vine Road Field

Scalzi Little League Field/Scazli #1, #2 and #3

Cubeta Stadium

Springdale Little League Field

Kosciusesko LL and Softball Field

Cummings #1 Field #2 Field #4 field and #5

Chestnut Field

Dorthey Heroy Field

Northrop (Stark school) Field

Dimension (18-0-40) - 50lbs/bag x (18/100) = 9lbs/bag x 60 bags = 540lbs N

ProPendi (13-0-4) - 50lbs/bag x (13/100) = 6.5lbs/bag x 60 bags = 390lbs N

Fertilizer (25-0-5) - 40lbs/bag x (25/100) = 10lbs/bag x 60 bags = 600lbs N

Total N Used = 1,530lbs

APPENDIX F

2014-2015 ENVIRONMENTAL PROTECTION BOARD SUMMARY TABLE

DRAFT 1
9/21/15

A summary of existing data for fiscal year 2014-15 documents the level of EPB Staff/client contact.

Activity	Service Output by Fiscal Year					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Customer Service:						
Office Visits:	3354	4483	4783	4798	4900	4832
Building/Septic Permit Reviews:	1222	1342	1642	1584	1505	1462
Administration:						
General Program Administration:	336	364	307	414	373	347
Referrals:	143	150	158	121	171	159
Permitting/Technical Review:						
Coastal Site Plan/Zoning Applications:	13	15	20	19	16	26
Wetland/Watercourse Applications:	27	38	35	41	28	28
Subdivision Applications:	02	03	03	03	05	09
ZBA Applications:	68	55	63	71	66	51
Site Plan Review Applications:	39	46	55	106	99	117
Enforcement/Inspection:						
Project Monitoring/Compliance:	79	82	87	81	95	93
General Enforcement Activity:	58	56	59	28	25	30
Complaints/Citizen Services:	35	34	39	37	46	220
Special Projects:						
CRS Program Recertification Tasks:	18	18	18	18 (5-yr)	18	18
GIS Updates/Permit Links	00	00	00	01	01	01
MS4 Regulations/Applications	00	00	00	00	01	01
Public Outreach	01	01	01	02	03	04

*The information summarized above is based upon an examination of written correspondence (chronological) files and existing data base entries for the period 7/1/14 to 6/30/15. Omitted from the reporting are telephone entries, electronic mailings, facsimile transmissions, undocumented field inspections, inspections conducted in conjunction with the review of development applications, and other related activities.

APPENDIX G

2014-2015 CATCH BASIN / MANHOLE REPAIRS LIST

(July 2014 to 2015) Catch Basin & Man HolesRELIABLE

COMPLAINT STATUS

STATUS

Priority Legend: #1 - ASAP, #2 - 6 months, #3 - 1 year

Assigned Not Assigned

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
	6/26/2014	75	Alton Road	Drainage Pipes							
	9/4/2014		Alton Rd/Norman Rd	Sinkhole along catch basin		2		w paving program	hold		
152484	7/3/2013	14	Ann St	Sinkhole along catch basin					private drive		
448529 112013	11/20/2013	21	Arden Lane	Mh broken(leaf pick up)		1			MH is sanitary (portanova)		
	11/17/2014		Ardor Rd (Bartlett)	Mh broken(leaf pick up)				to Reliable 11/17/14	DONE		
458421	12/4/2014		Arthur Place	Sinkhole along catch basin-fire stat		1		to Reliable 12/4/14	DONE		
449380	1/6/2014	70	Ashton Rd	cb at driveway with hole/sinking		2		DONE	to Reilable		
			Atlantic St/main st	manhole collapsed(Tyler T)					Roger Arnow 1/28)	done 1/29	
	5/16/2014	28	Ayers Rd.	MH Repair			WPCA	6/4/2014			
w450566	5/9/1958	28	Ayres Drive	MH cover Missing(cone on mh)			WPCA	not assgd			
W453471	5/14/2014	28	Ayres Drive	MH ineffective							
462267	3/30/2015	86	Barholm Ave	cb repair				to relaible 4/16			
150720	4/26/2013	103	Barncrof Road	MH needs to be built up (Low & makes too much noise)					x		
448521 111913	11/20/2013		Bedford Street/Avon Theatre	mh sinking(carolluzzi)		1	hold	WPCA	MH is sanitary (portanova)		
150936	5/3/2013	300	Bedford Street	Open MH near Avon theater				Hold?hgwy?	MH is sanitary (portanova)		
W453179	5/6/2014	15	Berges Ave.	Large potholes around storm drain at end of driveway		2					
	7/1/3014	14	Boxwood La	mh with barreli				hold	wpca?		WPCA to fix
	1/8/2015	17	Brandwine rd	cb sinking by Highway		1		to Relaiable	priority		
455756	8/4/2014	3	Brantwood La	cb sinking				to reliable 8/4	DONE		
462267	3/30/2015	135	BreezeHill Rd	cb sinking		1		to reliable			
		33	bridge st	cb sunken(mayor office)				DONE	to reliable 7/23		
	4/13/		Bridge St/Summer	cb sinking		1		to reliable			
			Broad St(hoteldriveway)	Collapsed CB				done 1/29	Roger Arnow		
455905	8/14/2014	83	BrookRun lane	Collapsed CB				to Reliable 815	DONE		
4543450-61514	6/15/2014	38	Brushwood Road	Collapsed CB			2-Jui	To Reliable			
W453010	4/30/2014	49	Buena Vista St.	Storm drain pushed away from curb					highway?8/20		
	5/20/2015	257	257 Buttemut lane CORNELIO	cb collapsed				TO RELIABLE			
	11/14/2014	106	Campbell Dr	cb collapsed				Reliab 11/14	DONE		
W463925-050415	5/4/2015	96	: 96 Carter Dr	cb needs repair							
461249	3/14/2015	17	Case Rd	cb grating rusted		3		not assged			
W453031	5/1/2014	20	Center St.	Large washout pothole next to storm drain		1	22-May	To Reliable	DONE		
W452983	4/30/2014	28	Central St.	Water running on properties (2 cbs adj't)			CB DONE	to reliable	Highway to fix apron at Summit Pl		
151302	5/22/2013		Ceretta Street	Hole near manhole				Highway			
	6/4/3166	2-Apr	Charles Mary La	CB COLLAPSING cul de sac		1		to reliable	DONE		
	5/1/2014	12	Chestnut Hill Rd.	eek running full and sending water into catch basin uphill							
W461145-031215	3/12/2015	27	COACHLAMP LA	CB COLLAPSING				to Rel;aible 4/8			
W464512-052115	5/28/2015	5	: 5 Cody Drive	CB COLLAPSING				to rei 5/28			
458077	11/18/2014	162	Colonial rd	mh collapsed			not critical				
W463871-050115	5/1/2015		44 Commerce Road	cb collapsed				to reliable			
448368 110813		38 Cook Rd	Cook Rd	Cb (MH) collapsing				Private Rd	to WPCA		
454550	6/20/2014	11	Corn Cake Land	Manhole loose				TO RELIABLE	9/8/2014		
151244	5/20/2013	35	Court Street	Deep depressions collect water				HOLD	DRAINAGE WORK		
458107	11/19/2014	131	Courtland Ave	cb collapsed				Private driveway			

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
452112	4/1/2014		Cousins Rd and Larkspur	CB with cone since last fall		1			Aquarion water Co		
460656	3/4/2015	16	COWAN AVE	cb collapsed- BY DRIVEWAY		1		CRITICAL	to reliab 5/28		
		44	Crestwood Ave	cb collapsed		3		to highway	hold		
W464799-060215	6/2/2015		219 Culloden Road	CB collapsing				to reliable 6/2			
152061	6/19/2013	33	Dancy Dr	catch bains flooded/possible pipe rupture/easement				highway?	HOLD		
W464269-051415		58	dannel drive	CB collapsing		1		to reliable	DONE		
460979	3/10/2015	2	DENICOLA PLACE	Large washout pothole next to storm drain		1			TO BE ASSGD		
	11/14/2014		Division St	CB collapsing Cornelio				rel 11/25	DONE		
454849	7/2/2014	36	Dogwood Court	CB collapsing			3-Jul	To reliable			
		43	Donald Rd	CB collapsing Comelio				to reliable 1/22			
W447431-092413	9/25/2013	71	71 Doolittle Road	Broken manhole cover at this address-- pieces are missing				DONE	27-Sep	1	
	5/20/2015		142 Downs Ave	CB collapsing			TO RELIABLE				
460160	2/13/2015	8	DunnAve	mh too high				NOT ASSGD	not critical		
60350-022315			PEAK/DUNN AV	mh too high					NOT ASSGD		
458842	12/23/2014	26	Edice Rd	Water ponding in front of property				not assigned			lower rad/cb top
			EIGHT ST	BROKEN MH					TO ROGER ARNOW 2/27		
W453665	5/21/2014	1	Elmcroft Road	Strorm drain as sunk			6/3/2014	to reliable	DONE		
			Elmcroft Road	In front of Pitney bowes cb w/hole(tyler)		1		to reliable 12/5	DONE		
W463895-050415	5/4/2015		elmcroft road	CB collapsing				to reliable			
	8/26/2014		Elm St (under RR bridge)	Strorm drain as sunk				to rel 8/26	DONE		
		1	ETHAN LA	CB collapsing					DONE	2	
W453991	6/2/2014	85	Euclid Avenue	CB ready to fall				To Reliable	DONE		
150980	5/6/2013	602	Fairfield Avenue	ch basins completed (other at Brunwood Ave underzize?				Hold?hgwy?			
	14-Nov	291	Fairfield Avenue	CB collapsing casolo				reliab 11/14			
	9-Jan	375	Fairfield Avenue	CB collapsing Teder				TO RELIABLE 1/9			
	9-Jan	509	Fairfield Avenue	CB collapsing Teder				TO RELIBALE 1/9			
463095	30-Mar	0	Fairfield Avenue	CB collapsing Teder		1		to reliable			
	26-May		top gallant at Fairfield ave comelio	CB collapsing				to reliable			
W464516-052115	1-Jun		Top Gallant Rd								
454147	6/9/2014	30	Fawn Drive	CB collapsing			23-Jun	To reliable	not visible		
152660	7/10/2013	67	Fawnfield Rd	cb raised up/back side also?				Hold?hgwy?	by paving contractor		
: W464667-052815	5/28/2015		: 198 Foxwood Road	Washout next to storm drain				to reliable			
	6/8/2015		**191 and 175 Foxwood Road**	cbs to be elevated				to reliable			
		256	**Haig Ave**	Washout next to storm drain				to reliable 6/2			
	11/22/2013	104	Gaymoor Drive	MH busted(cornelio) emergency		1	to RA	11/25/2013	DONE		
		160	Gaymoor Drive	catch basin at his location is collapsing					DONE		
W463857-050115	5/1/2015	92	92 George St.	Washout next to storm drain				to reliable 5/1	DONE		
w 4624293	5/15/2015	30	Gerik Rd	Washout next to storm drain				to reliable			
W463474-042215	5/5/2015		: 198 Glenbrook Road	mh sinking				to reliable			
	5/12/2015		16 Glenbrook Rd	catch basin at his location is collapsing				to reliable	done		
			GLENDALE Rd @ Hope Street	catch basin at his location is collapsing			7/25/2014		DONE		
W463922-050415	5/4/2015	16	16 Glendale Road	catch basin at his location is collapsing				to reliable			
454430-061714	6/17/2014	30	Glen Terrace	Washout next to storm drain				To reliable	not visible		
W462143-032615		118	Gray Farm Rd	catch basin at his location is collapsing				to reliab			
152550	7/8/2013	108	Gray Farm Rd	CB collapsed/top unbolted- sink hole in roadway		1			HOLD		
460189	2/17/2015	172	GREENWICH AVE -RR BRIDGE	mh sunken				TO ROGER ARNOW			
W464583-052615		12	12 Gypsy Moth Landing	catch basin at his location is collapsing			to reliable				
		35	HACKETT CIRCLE	mh sunken				TO WPCA 2/5			
			haig Ave	cb at Town yard caved (tyler)		1		Roger DONE			
	11/27/2013		Hamilton Ave/JUDY St	CB collapsing					DONE		
151754/462193	6/9/2013	228	***Hamilton Ave/Field St***	**CB not draining (issue with pipe ?)**		1		HOLD	x		
W463877-050215			65 Haviland rd	CB caving				to reliable			

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
	7/22/3165	0	***hemlock Dr***	CB caving		2			Not Assd		
454449-061814	7/2/2014	24	Hinckley Ave.	CB with orange cone- needs repair				To Reliable	DONE		
455297	7/17/2014		hope st(bob's furniture)	mh sunken					to HIGHWAY 7/23		
	7/24/2014		HOPE ST/LARGO DR	MH sinking(D Hoyt)				To Reliable	DONE 7/25	1	
143413	8/27/2013	725	Hope Street	CB caving in and ready to fall at location					not visible		
w 464800	6/2/2015		113	CB caving steel				HOLD			
			Glendale Rd @ Hope Street	CB caving					DONE	1	
452336	3/30/2015		havemeyer ia	CB caving steel				to reliable			
		839	Hope Street	To Anthony- CB collapsed				TO RELIABLE	noted by Tyler 12/26 email		
			HOPE STREET/ROCK SPRING	MH needs repair (Cornelio)					NOT ASSGD		
	12/3/2014		Hoyt St/Washington Blvd	cb to be repaired				hold -state?			
	W463043-041315		Hoyt st	mortar missing at cb					to reliable		
	19-May		Idlewood drive	cb to be repaired		3		to reliable	DONE		
		138	idlewood drive	cb to be repaired				to reliable	DONE		
	9/3/2014	71	Interlaken Rd	cb to be repaired		1	DONE				
450950/451629	3/11/2014	96	KatydLANE	CB sinking (1x1 hole)		1		Reliable	done	1	
		202/253	KenilworthDrive/Soundview Dr	3 cbS damaged and plated by HGWY				to Reliable			
			Kensington Rd	cb to be repaired				to reliable			
	2/3/2014	43	Kensington Rd	MH needs repair (Cornelio)		1			WPCA		
460127	2/11/2015	99	KNOX RD	mh sunken				NOT ASSGD	NOT CRITICAL		
458329	12/1/2014	161	Janes La	frame broken on cb		1		to Reliable 12/4/14			
458260	11/25/2014	131	Janes la(kathydid)	cb collapsed		1		rel 11/25			
		6	Jeanne Court	CB caving in and ready to fall at location		1		To Reliable	DONE		
W453013	4/30/2014	6	Jeanne Court	Basin repair			1-May	To Reliable	DONE		
W453872	5/29/2014	71	Jeanne Court	Loose MH					DONE		
454248-061114	6/11/2014	25	Jefferson St.	Storm Drain Collapse			25-Jun	To Reliable	DONE		
460199/460192	2/17/2015	107	JUNE RD	DRAINAGE ISSUE/NEW CB?				TO BE DESIGNED			
458255	11/25/2014	20	Joan Rd	CB collapsed Cornelio 2 CBS				rel 11/25			
		44	Kirkham Place	CB collapsed		1		to Reliable	DONE		
W462237	3/30/2015	27	Knapp St(Northill)	cb to be repaired		2		to reliable			
456883	9/19/2014	50	50 Lanark Road	cb w huge hole				To Reliable 9/19			
			60 Lanark Rd	cb to be repaired		3			not assigned		
		55	LIMERICK ST	cb to be repaired BELMONTE/DOMENICK Tram				to Rel 11/7			
W463775-042915		234	Little Hill Drive	cb to be repaired					DONE		
		100	Magee Ave	Storm Drain Collapse			26-Jun	To reliable	DONE		
455104	7/11/2014		Magee Ave	cb sank 10 @ jefferson st				To reliable	DONE PUMPING STA		
	3/25/2015		Magee Ave/Harborview (	cb to be repaired		3		not assgnd			
	4/9/2015		Magee Ave(near gas pumps) Tyler	mh collapsed(d hoyt)		1			to reliable DONE		
	4/7/2015	100	magee Ave (nearRecycling cter)	cb to be repaired		1		to reliable	DONE		
W463920-050415		300	300 Main Street	utility grate sinking							
456984	9/25/2014	42	42 Malvern Rd.	cb to be repaired		1		To reliable 9/25			
		110	Maple Tree Avenue	mh collapsed(d hoyt)		1		to reliable 9/30	DONE		
151247	5/20/2013	38	Maple Tree Avenue	Large pothole			11-Jun	***ToHighway***			
	1/17/2014	17	marian St(Elisabeth ave)	cb at this intersection collapsing (Cornelio)		1			DONE		
	5/22/2015	42	Mary Violet	doubi eCB sinking Natasha				***to Relaibale***			
457386	10/14/2014	10	Mead St	cb damaged				To reliable 10/17	DONE		
			Meadow Street	Collapsed CB			11-Jun	To reliable	DONE		
456023	8/14/2014	15	Meadowpark south(nancy)	cb with holes(near this address)					DONE		
		19	Meredith La	cb damaged				to reliable 7/24			
	2/3/2014	232	232 minivale sewer manhole repair	MH repair (cornelio)		1		***WPCA***	not assigned yet		
W451768-031914	3/21/2014	41	Minivale RD	at # 41 cb crumbling		1		Reliable	DONE		
w450008	2/3/2014	40	Minivale RD	at # 41 cb crumbling		1		***DONE***	to reliable		
452294	4/7/2014	49	Minivale RD	storm drain collapsing				***to reliable6/20***	DONE		
W446890-090413	9/18/2013		**114 Morgan Street**	**loose manhole**		3		***not visible***	to highway 9/27		
447143 091313	9/13/2013		**114 Morgan Street**	**loose manhole**		3		***not visible***	highway ?		
			99/104 MULBERRY ST	**2 CBS DMAGED**					DONE		
		44	**MOHAWK**	**CB DAMAGED**					DONE 7/25		
		27	**MOHAWK**	**CB DAMAGED (reliable picture)**		2					
	4/27/2015		**460 newfield basin sinking**	**CB DAMAGED**				***to reliable***			
151064	5/9/2013	148	Myrtle Avenue	Manhold sunken very deep				Hold?hgwy?			

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
	10/3/2014	470	NEWFIELD AVE	cb marked(near barrett park)					not assined yet		
		943	NEWFIELD AVE/TRINITY SCHOOL	Sunken manhole cover				done			
	4/1/2015	535	Newfiled Ave(Fairland St)	CB sunken		1		to reliable	done		
	5/5/2015	1839	1839 Newfield Ave.	CB sunken tyler theder				to reliable			
152817	7/16/2013		North Street	Sunken manhole cover				***BrooksFiber***			
	7/1/2014		North St/ Summer Street	CB sunken					DONE 7/25		
151291	5/21/2013		North Street/Atlantic St	Sunken manhole cover				***BrooksFiber***			
448574 112213	11/22/2013		Northill/Palmer St	cb debris left in place		3	to highway	***to remove debris***			
		65	Northwood Lane	CB sunken by Highway				***to reliable***	DONE		
		373	Ocean Dr West/Stamford Ave	cb damged 2cbs			to highway	***to change grtng***			
		40	OCEAN DRIVE	CB sunken					DONE		
		452	452 Ocean Dr West	CB sunken		3			not critaical yet		
W463764-042915	4/29/2015		: 215 Ocean Drive West	cb collapsing				***to reliable***			
449289	1/2/2014	47	Oaklawn Ave	cb with sink hole(hole is in grass/behind cb)		2			WPCA 6/12		
453694		359	Oaklawn Ave				4-Jun	to reliable	Done WPCA		
W453736	5/23/2014	118	Old Barn Road North	No rim on MH				***WPCA***	done		
462042	3/25/2015	95	Old BarnRoad	CB sunken				***to reliable***			
457800	11/3/2014	112	Old Mill la	double CB SINKING				***Rel 11/7***			
	7/18/2014	99	OLD NORTH STAMFORD RD	2 MH"S sinking					to Highway to add asphalt		
		25	OLD NORTH STAMFORD RD	CB SINKING				***DONE9/9***			
149843	3/23/2013	112	Orchard Street	Storm Basin sinking below street level				to reliable	not visible		
462336	3/30/2015		Palmers Hill(havemeyer)	cb grating?					not assgned		
	10/17/2014	94	***Parry Rd***	cb with hole					ASSIGNED reliable 10/17		
	3/13/2014		Pepperidge rd/Turner Rd	cb with hole		2		not assgd	grating needed		
W 462052/462369	3/25/2015	415	Pepperidge rd	cb with hole by driveway		1		to Relaible			
	8/19/2014		Pine Hill/Hope St	cb with hole(Hoyt Doug)				DONE	to reliable 8/19/14		
458377	12/3/2014		Powell Place/West Nort -school area	Strom drain colapsing		1		to Reliable 12/4/14			
W463621/W463658	4/27/2015	12	: ridge brook drive	Strom drain colapsing				to reliable 4/27			
W453223	5/6/2014	63	Rachelle Ave.	Strom drain colapsing		2		Willie?	not assigned		
			Ralph Street	cb with hole					DONE RELIABLE		
W463678-042715	4/27/2015	25	Ralph Street	Mh collapsed				to Reliable 4/27			
	5/4/2015	100	100 research	cb damaged by water co (cornelio)							
W452662	4/21/2014	96	Ridgecrest Rd.	Huge hole with an orange cone in it for 4-6 weeks			19-May	To Reliable			
153220	7/30/2013	64	***Rippowam Rd***	MH cover loose				Highway?	DONE 7/25		
461035	3/10/2015		***RIVER HILL RD***	MH cover sunk into road- POLICE					NOT ASSGD- FROST?		
455848	8/6/2014	36	***RiverRidge Ct***	cb in despair				to reliabl 8/15			
	12/16/2013		64 robinson	Hello Frank.64 robinson needs new ring.		2		DONE			
	5/15/2015		Rockledge Drive and Ocean Drive East	mh collpased Tyler		one		to reliable	done		
		88	Rockridge Rd	Collapsed CB			11-Jun	To reliable	DONE		
W453099	5/2/2014	336	Rock Rimmon Rd.	Road hazard							
W447664	10/4/2013	0	Rock Spring Rd.	MH cover sunk into road		1	?				
447664-100413	10/16/2013		RockSpring/Hope St	MH coversinking		3		not critical	HIGHWAY?		
458398	12/4/2014		RockSpring/Hope St	MH coversinking				not critical	HIGHWAY		
152461	7/3/2013		***RockSpring Rd/Puritan La***	CB sinking			DONE		not visible		
454402	6/17/2014	98	Rolling Wood Drive	CB Collapse				To Reliable 6/18	DONE		
460233	2/18/2015		ROLLING WOOD DR/LITTLE HILL	MH cover sunk into road					NOT ASSGD-FROST?		
		176	roxbury rd	cb sinking(by field)				To Reliable 8/4	DONE		
w448884-090413			Russett Rd	Cb at Russett and Mac Intosh Rd (hole on side)		1	assgd		W/ Paving	1	
w450805	21914	46	Saddle rock rd	MH broken		3		electrical ?	Praksah alerted		
4-Dec			Scofield Rd/Oscar Rd	catch basin at his location is collapsing		1		to reliable12/4			
		148	Scofieldtown Rd	catch basin at his location is collapsing				to reliable 7/4	DONE		
			Seaton/Standish	cb colipased(figueroa)		1		to reliable 10/10	DONE		
	1	35	selleck st	catch basin at his location is collapsing				to reliable			
	0		2nd and Summer St.	mholes 2- colipased				to reliable			
150628	4/23/2013	244	Shelter Rock Road	When rains water goes under driveway if not collected		1			X		
W451498	3/14/2014		Shippan Elm and Cove	MH on southernly side is sunken					electrical MH		
460364	2/24/2015	49	SHIPPAN AVE	MH SUNKEN TRANSIT WAY				NOT CRITICAL			

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
W464861-060315			SHIPPAN AVE	120 feet from SOUTHEAST corner of Shippan Ave				to reliable			
	2/27/2015		Shippan at park entrance	cb old style Lou?arnold				to reliable			
	5/27/2015		Wardwell/Shippan	cb old style Lou?arnold				to reliable			
w451397	3/21/2014		Skyline La/Northwind Rd	hole at cb		1		To Reliable 6/10	DONE	1	
W463056-041315	4/13/2015		Skyline La/Northwind Rd	CB W HOLE					TO RELIABLE 4/16		
W447416-092413	9/24/2013	90	90 Snow Crystal Lane	catch basin at his location is collapsing			9/27/2013	TO HIGHWAY	grating needed	DONE	
454346-061614	6/17/2014	24	Snow Crystal Ln.	Large sinkhole adjacent to CB					DONE	1	
		353	Soundview Ave	CORNELIO: double CB REPAIR				reliab 10/20	DONE		
- W463281	4/17/2015	300	: 300 Soundview Avenue	catch basin at his location is collapsing				to reliable			
	5/31/3154	29	South Lake drive	cb/curb also destroyed leaf pickup		2			not assigned yet		
455014			South State/Canal St	MH with plate(cornelio)					Reliable 7/9/14	WPCA DONE	
	1/22/2015	36	Stanton Drive Tyler T	cb collapsed Tyler				To Relaible 1/22			
463017	4/13/2015		Stanton drive/Stanton Lane	cb at intersection				to reliable			
456864	9/17/2014	800	Stillwater Rd	CB at school driveway (K lassogna)		1		To Reliable	18-Sep	DONE	
W463839-043015			1351 Stillwater Road	cb needs repair (by Cornelio)				to reliable			
	7/8/2013	5	Strawberry Hill Rd	cb needs repair (by Cornelio)			verify if done		x		
w451566	13/15/2014	441	SUMMER ST	CORNELIO: CB REPAIR		1		DONE	not assigned yet		
W457296-100814	10/8/2014	1275	Summer St	cb collapsed (3 cbs to repair)				to reliable 10/9	DONE		
			Summer St/6THsT	cb collapsed Tyler				REL11/13	DONE		
459771	10/22/3158		SUMMER ST	2 MH"S sinking			ELECTRICAL -TO ARNOLD				
447733 100813	10/16/2013		Summer St/Planet Pizza	Mh sunken			not visible	Highway?	DONE		
W464940-060615			CORNER OF BRIDGE AND SUMMER	cb needs repair (by Cornelio)				to reliable			
: W464939-060615			FOURTH AND SUMMER	cb needs repair (by Cornelio)				to reliable			
W464938-060615			SECOND AND SUMMER HEADING	mh with hole cornelio				to relaible			
151223	5/17/2013	50	Sunnyside Avenue	Loose Catch Basin		3		to reliable	not visible		
455305	7/17/2014	149	sweet briar rd	cb sank 8 in				to REL			
		10	Sylvandale ave	CB with hole Tyler					to reliable		
W448578-112213	12/2/2013		Terrace Ave (High Rigde side)	2 cb's sinking		2		DONE	not assigned yet 12/2		
454345	6/15/2014	138	Thornwood Road	CB with hole			6/17/2014	To Reliable	DONE 7/25		
	7/16/2014		Thornwood Road/bruswood	2 cb's damge and sinking				to reliable	DONE 7/25		
	7/3/2014		Treat Ave	Change grates				TO HIGHWAY			
W462327-033015	4/13/2015		Tower Ave	cb grating???				not assngd			
			tupper dr	CB needs repair for basin				to reliable	done		
		79	TurnRiver Rd	CB needs repair for basin				to Reliable	CHECK IF DONE		
		191	Van Renseliaer	hole near CB					DONE		
462015	3/10/2015	22	VERNON PLACE	CB needs repair for basin-SNAPPED BY PLOW					NOT ASSGD		
W452816	4/24/2014	21	Verplank Ave./Stamford Ave.	CB needs repair for basin			29-May	To Reliable	DONE		
			Vine Rd(High Ridge)	Cb at corner (By Cornelio)		1			hold state dot?	DONE DOT	
	4/14/2015	106	#106 Virgil Street - Manhole Cover	mh cover		1		to reliable			
w451129	3/9/1962		Henry St/Washington Blvd	mh broken cover (police dispathc)				patched by highway	to reliable/NOT VISIBLE		
W452655	4/21/2014	888	Washington Blvd.	MH cracked ring keeps popping off				TO RELIABLE10/27	ELECRTICAL?	W459745	
			Washington Blvd./HOYT	cb with hole(cone needed)				TO RELIABLE			
			Washington Blvd./COLD SPRiNG/BRIDGE	Mh sunken				WPCA			
461724	3/23/2015	888	washinton blvd	possible cb collapse?				not clearly indicated			
W309510-080513	8/5/2013	13	13 Webb Avenue	CRACKED FRAME,mh shakes and noisy		2	by Cornelio				
454299-0612174	7/2/2014	101	Webb Ave	Hole next to CB				To Reliable			
W453179	5/6/2014	326	Webbs Hill Rd.	Large potholes around storm drain at end of driveway				To Anthony			
452655	4/21/2014	128	Weed Hill Ave	MHw cracked ring		3			not critical		
: W463999-050515	5/5/2015	146	146 Weed Hill Avenue	mh sinking Cornelio				to reliable			
463747			106 Weed Hill Avenue	cb sinking				to reliable			
152631	7/10/2013	420	West Ave	CB grating fellin					DONE HGWY		
W452076	3/31/2014	67	West Bank Ln.	Hole near storm drain sinking a lot				Highway TO FIX			
			West Beach Parking lot	Hole near storm drain sinking a lot		1		to reliable			
151299	5/22/2013		West Broad	Manhole cover is falling in the hole					highway repair		
	11/19/2013	18	West Haviland	MH broken by Highway(leaf pick up)(cornelio)		1	done RA	11/21/2013	highway to repair		
	8/8/2014		West Hill Rd.	Large puddle when it rains. Road/curb destroyed					highway to repair		
W452637	4/18/2014	220	West Hill Rd.	Large puddle when it rains. Road/curb destroyed							
W446777-082913	8/29/2013		West Hill Road/windover	flooding has destroyed the curb				to investigate flooding			

CRS#	Date	#	Street	Complaints	olumn	Priority #	Date	Contractor	Not Assigned	FY14/15	COMMENTS2
			269 West Lane	cb with hole(cone needed)					to Rei 8/28		
			WEST NORTH ST- SCHOOL	cb with hole(cone needed)				DONE			
456697	9/10/2014	562	Westover Rd/west glen	cb with hole(cone needed)				to rei 10/17			
		60	WESTOVER RD	cb with sink hole CORNELIO				TO RELIABLE 12/19			
W463530	4/23/2015		Westover Road at Summit pl	cb sinking By police				to reliable			
		164	Westwood Rd	cb with sink hole				TO RELIABLE 9/9			
	1/15/2014	90	Westwood Rd	MH ring broken (Comelio)		3		WPCA	not critical yet		
454146	6/9/2014		White Birch Road	CB collapsing			6/18/2014	To reliable	DONE		
455260	7/16/2014	34	Willowbrook Place	cb with sink hole				to reliable	DONE		
W452467	4/14/2014	235	Willbrook Ave.	Clean catch basin in back yard of this address				highway			
W453170-050514	5/5/2014	6	6 Winding Brook Lane	pothole near the grate of a storm drain.		1		not assigned	9/8/2014		
			WIREMILL RD/BLACKWOOD LA	MH PLATED BY HGWY		1			TO ROGER ARNOW 2/23		
			WEST LA	cb with sink hole				To reliable	DONE		
462389	3/31/2015		20 and 22 Woodland Place	cb with sink hole		1		to reliable			
462327	3/30/2015	5/11/1900	WoodBury Ave	cb with sink hole		1		to reliable			
460077	10-Feb	75	WOOD RIDGE DR	SINKING MH		2		NOT ASSGD			
W453395	5/12/2014	99	Woods End Road	Needs new MH frame				wpca -green marks	DONE WPCA		

APPENDIX H

CATCH BASIN INSPECTION AND CLEANING PROCEDURES AND SAMPLE INSPECTION FORM

MAYOR
DAVID MARTIN

DIRECTOR OF OPERATIONS
ERNEST ORGERA

CITY OF STAMFORD

OFFICE OF OPERATIONS

HIGHWAY DEPARTMENT

TRAFFIC & ROAD MAINTENANCE SUPERVISOR
THOMAS TURK

REGULATORY COMPLIANCE OFFICER
TYLER THEDER

OPERATIONS SUPERVISOR
DOUGLAS HOYT

OPERATIONS SUPERVISOR
PETER J. IANNACCONE

OPERATIONS FOREMAN
JOHN CORNELIO

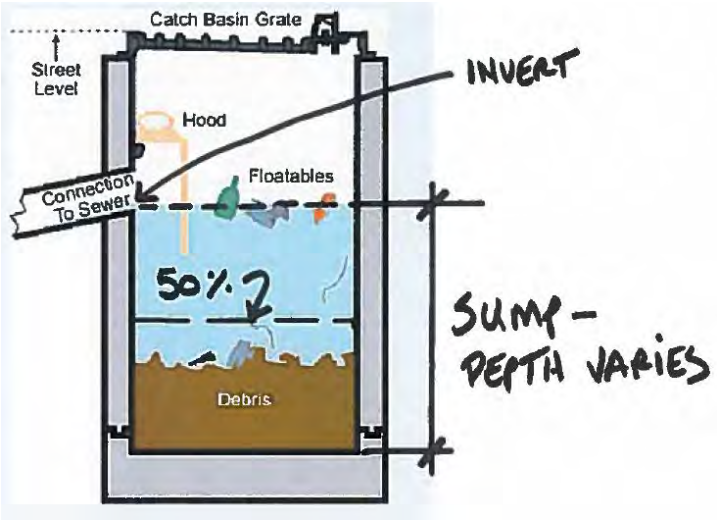
To: Stormwater Management Department Equipment Operators

From: Tyler Theder, Regulatory Compliance and Administrative Officer

Date: 9/29/2014

RE: CATCH BASIN INSPECTION AND CLEANING PROCEDURES

1. Arrive at catch basin, turn on IPad, launch MS4 Front program, locate basin on map, and photograph catch basin.
2. Properly position the Vac-truck and remove catch basin grate.
3. Remove bell trap to expose all piping.
4. Use probing rod to drill down through any accumulated sediment or debris to locate the concrete bottom of the sump.
5. Determine the depth of the sump basin (example: sump depth is 2 feet below invert piping) and record observations in MS4 Front.
6. Determine the depth of sediment or debris in the sump (example: debris loaded up to invert – sump is 100% full) and record observations in MS4 Front.
7. **Pump the basin with the Vac truck if the sump is determined to be more than 50% full of debris, sand, or accumulated solids**.
8. Complete the catch basin inspection and cleaning report in MS4 Front, replace catch basin grate, and proceed to the next catch basin.



City of Stamford

Structural Stormwater BMPs Inspection Report

Inspection Details

Structural BMP Name:	295 Roxbury Rd
Date:	4/17/2015
Inspector:	Wendell Christian
BMP Conditions:	Fair
Last Rainfall Date:	
Last Rainfall Amount:	inches
Comments:	Basin pumped and cleaned and no major problems.

cdv_photo_004.jpg

cdv_photo_002.jpg

cdv_photo_003.jpg

cdv_photo_001.jpg

Inspection Checklist (PP/GH Stormwater BMPs Inspection)

Is the catch basin more than 50% full?	Yes
What percentage is full?	>50%
Was it cleaned?	Yes
Is the basin failing?	Yes

APPENDIX I

ORDINANCE NO. 1183
REGULATION OF THE MS4

ORDINANCE NO. 1183, SUPPLEMENTAL
ADDING CHAPTER 201, REGULATION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ["MS4"], ARTICLE I, REGULATION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ["MS4"]

WHEREAS; the State of Connecticut Department of Environmental Protection ["DEEP"] issued a Permit to the City on June 4, 2013 for the operation of the City's Municipal Storm Sewer System, NPDES Permit No. 0030279; and,

WHEREAS; a requirement of the DEEP Permit is that the City establish legal authority to provide for the health, safety, and general welfare of the citizens of Stamford through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable, as required by federal and state law; and,

NOW, THEREFORE, BE IT ORDAINED BY THE 29th BOARD OF REPRESENTATIVES THAT:

Chapter 201, Regulation of Municipal Separate Storm Sewer System ["MS4"] shall be appended to the City of Stamford Code of Ordinances as follows:

CHAPTER 201 REGULATION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ["MS4"]

ARTICLE I. REGULATION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM ["MS4"]

Sec. 201-1. Purpose/Intent

The purpose of this Ordinance is to provide for the health, safety, and general welfare of the citizens of Stamford through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable, as required by federal and state law. This Ordinance establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this Ordinance are:

(1) To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user;

(2) To prohibit and eliminate Illicit Connections and Discharges to the municipal separate storm sewer system;

(3) To establish legal authority of the City to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this Ordinance;

(4) To ensure compliance with the Connecticut Department of Environmental Protection ["DEEP"] Permit for the operation of the City's Municipal Storm Sewer System ["the Permit"], NPDES Permit No. CT 0030279, issued on June 4, 2013.

Sec. 201-2. Definitions.

For the purposes of this Ordinance, the following definitions shall apply:

Authorized Enforcement Agency: The Office of Operations or designees of the Director of Operations who are designated to enforce this Ordinance, including but not limited to the Regulatory Compliance and Administrative Officer, and Operations Supervisors and Foremen in the Traffic and Road Maintenance Department.

Best Management Practices ("BMPs"): schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Clean Water Act: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Construction Activity: Activities subject to National Pollutant Discharge Elimination ["NPDES"] Construction Permits, including but not limited to NPDES Stormwater Phase II permits required for construction projects resulting in land disturbance of 1 acre or more. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Illicit Discharge: Any direct or indirect discharge to the storm drain system that is not entirely composed of stormwater, except as exempted in Section 7 of this Ordinance.

Illicit Connections: An Illicit Connection is defined as either of the following:

(a) Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-stormwater discharge including sewage, process wastewater, and wash water to enter the storm drain system, and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by the Authorized Enforcement Agency or,

(b) Any drain or conveyance connected to the storm drainage system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

Industrial Activity: Refers to the definition of Industrial Activity in Section 2 of the General Permit for the Discharge of Stormwater Associated with Industrial Activity issued by the Connecticut DEEP, as amended.

National Pollutant Discharge Elimination System (NPDES) Stormwater Discharge Permit: A permit issued by the EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.

Non-Stormwater Discharge: Any discharge to the storm drain system that is not composed entirely of stormwater.

Permit: The Connecticut Department of Environmental Protection ["DEEP"] Permit for the operation of the City's Municipal Storm Sewer System, NPDES Permit No. CT 0030279, issued on June 4, 2013.

Person: Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the Owner or as the owner's agent.

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; noxious or offensive matter of any kind; industrial and commercial wastes, trash, used motor vehicle fluids, food preparation waste, leaf litter, and grass clippings.

Premises: Any building, lot, parcel of land, or portion of land, whether improved or unimproved, including adjacent sidewalks and parking areas.

Storm Drainage System [also known as Municipal Separate Storm Sewer System or MS4]: Publicly-owned facilities by which stormwater is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures. Additionally included are retention and detention basins which are privately owned where the City maintains an easement or other legal authority pursuant to Section 6(A)(3)(a)(i) of the Permit.

Stormwater: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Wastewater: Any water or other liquid, other than uncontaminated stormwater, discharged from a facility.

Sec. 201-3. Applicability.

This Ordinance shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by the Authorized Enforcement Agency.

Sec. 201-4. Responsibility for Administration.

The Director of Operations, as he/she so delegates to the Authorized Enforcement Agency, shall administer, implement, and enforce the provisions of this Ordinance. Any powers granted or duties imposed upon the Director of Operations may be delegated in writing by the Director of Operations to the Authorized Enforcement Agency, acting in the beneficial interest of or in the employ thereof.

Sec. 201-5. Severability.

The provisions of this Ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this Ordinance or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this Ordinance.

Sec. 201-6. Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this Ordinance are minimum standards; therefore this Ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

Sec. 201-7. Discharge Prohibitions.

A. Prohibition of Illicit Discharges.

No person shall discharge or cause to be discharged into the municipal storm drainage system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater.

B. Exceptions

1. The following non-stormwater discharges, provided that they do not contribute to a violation of water quality standards and are not significant contributors of pollutants to the MS4: landscape irrigation and lawn watering runoff, provided that all pesticides, herbicides, and fertilizers have been applied in accordance with approved labeling; uncontaminated ground water discharges such as pumped ground water, foundation drains, water from crawl space pumps and footing drains; discharges of uncontaminated air conditioner or refrigeration condensate; for street sweeping activities conducted by the MS4, residual street wash waters that do not contain detergents and where no non-remediated spills or leaks of toxic or hazardous materials have occurred; and naturally occurring discharges such as rising ground waters, uncontaminated ground water infiltration (as defined at 40 CFR 35.2005(20)), springs, diverted stream flows and flows from riparian habitats and wetlands.

2. Discharges specified in writing by Regulatory Compliance and Administrative Officer as being necessary to protect public health and safety.

3. Dye testing is an allowable discharge, but requires a verbal notification to the Regulatory Compliance and Administrative Officer prior to the time of the test.

4. The prohibition shall not apply to any non-stormwater discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system by the appropriate authority.

C. Prohibition of Illicit Connections.

1. The construction, use, maintenance or continued existence of Illicit Connections to the storm drainage system is prohibited.

2. This prohibition expressly includes, without limitation, Illicit Connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

3. A person is considered to be in violation of this Ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

Sec. 201-8. Suspension of MS4 Access.

A. Suspension Due to Illegal Discharges in Emergency Situations

The Regulatory Compliance and Administrative Officer may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Regulatory Compliance and Administrative Officer may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

B. Suspension due to the Detection of Illegal Discharge

Any person discharging to the MS4 in violation of this Ordinance may have their MS4 access terminated if such termination would abate or reduce an illegal discharge. The Regulatory Compliance and Administrative Officer shall notify a violator of the proposed termination of its MS4 access. The violator may petition the Director of Operations for a reconsideration and hearing. Any hearing shall be conducted in accordance with the provisions of the Uniform Administrative Procedure Act, C.G.S. Sections 4-166 through 4189g.

A person commits an offense if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior written approval of the Regulatory Compliance and Administrative Officer.

Sec. 201-9. Industrial or Construction Activity Discharges.

Any person subject to an industrial or construction activity NPDES stormwater discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Regulatory Compliance and Administrative Officer prior to the allowing of discharges to the MS4.

Sec. 201-10. Monitoring of Discharges.

A. Applicability.

This Section applies to all Premises that discharge stormwater.

B. Access to Premises.

1. The Authorized Enforcement Agency shall be permitted to enter and inspect Premises as often as may be necessary to determine compliance with this Ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into its Premises, the discharger shall make the necessary arrangements to allow access to the Authorized Enforcement Agency.

2. All property owners shall allow Authorized Enforcement Agency ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge stormwater, and the performance of any additional duties as defined by state and federal law.

3. The Authorized Enforcement Agency shall have the right to set up on any Premises such devices as are necessary in the opinion of the Authorized Enforcement Agency to conduct monitoring and/or sampling of the Premises' stormwater discharge.

4. The Authorized Enforcement Agency has the right to require the discharger to install monitoring equipment as necessary. The monitoring equipment shall meet all specifications required by the Authorized Enforcement Agency. The discharger shall provide the Authorized Enforcement Agency with copies of all such monitoring reports as the Agency may reasonably require, including but not limited to laboratory reports for selected parameters. The Premises' sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated by qualified personnel to ensure their accuracy.

5. Any temporary or permanent obstruction to safe and easy access to the Premises to be inspected and/or sampled shall be promptly removed by the Owner at the written or oral request of the Authorized Enforcement Agency and shall not be replaced. The costs of clearing such access shall be borne by the Owner.

6. Unreasonable delays in allowing the Authorized Enforcement Agency access to a Premises is a violation of this Ordinance. A person who is the Owner of such Premises commits an offense if the person denies the Authorized Enforcement Agency

reasonable access to the Premises for the purpose of conducting any activity authorized or required by this Ordinance.

7. If an Authorized Enforcement Agent has been refused access to any part of the Premises from which stormwater is discharged, and he/she is able to demonstrate probable cause to believe that there may be a violation of this Ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this Ordinance or any Order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Authorized Enforcement Agency may seek issuance of a search warrant from any court of competent jurisdiction.

Sec. 201-11. Notification of Spills.

Notwithstanding other requirements of law, as soon as any person who is the Owner of or who is responsible for a Premises has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into stormwater, the storm drain system, or water of the United States, said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials, said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the Regulatory Compliance and Administrative Officer in person or by telephone or facsimile no later than the next business day. Notifications in person or by telephone shall be confirmed by written notice addressed and mailed to the Regulatory Compliance and Administrative Officer within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the Owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Sec. 201-12. Enforcement.

A. Notice of Violation.

Whenever an Authorized Enforcement Agent finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, he or she may order compliance by written notice of violation to the responsible person or persons. Such notice may require without limitation:

(1) The performance of monitoring, analyses, and reporting;

(2) The elimination of illicit connections or discharges;

(3) That violating discharges, practices, or operations shall cease and desist;

(4) The abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property; and

(5) Payment of a fine to cover administrative and remediation costs; and

(6) The implementation of source control or treatment BMPs.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

B. Fines.

The fines shall not exceed the maximum permitted under state law, and the amount shall be determined in accordance with this Subsection B.

Fine Schedule: The fine for violations involving more than one activity shall be equal to the sum of the fines for each applicable activity class.

Activity Class	Fine
First violation	$ 100.00
Second violation	$ 200.00
Third and subsequent violations	$ 250.00

Any fine collected by the City of Stamford pursuant to this article shall be deposited into the City of Stamford's general fund account.

C. Issuance of Citations

1. An Authorized Enforcement Agent may issue a citation to any person who commits a violation or a continuing violation of this Ordinance. Any such citation may be issued either by hand delivery or by certified mail to the person named in such citation. In such instances, each citation shall apply jointly and severally to the Owner of the property in question and his/her agents, contractors and subcontractors. An original or certified copy of the initial citation issued by the issuing official shall be filed and retained by the City of Stamford and shall be deemed to be business record within the scope of Section 52-180 of the Connecticut General Statues and evidence of the facts contained therein. In addition, a copy of the initial citation shall be reported to the Connecticut Department of Energy & Environmental Protection, pursuant to Section 22a-31-14 of the Connecticut General Statutes.

2. The citation shall inform such person:

(a) Of the allegations against him or her for which the citation is issued pursuant to this Section and the amount of the fines, penalties and costs, as fees due;

(b) That the person has a period of 30 days from the date of the citation (i.e., the date of hand delivery or the date the citation was mailed) to make an uncontested payment of the fines;

(c) Payment may be made by cash, credit card, checks or money orders made payable to the City of Stamford and submitted in person or mailed to Cashiering & Permitting, City of Stamford, P.O. Box 10152, Stamford, CT 06904-2152.

(d) The citation notice shall also inform the person cited that he/she may contest his liability before a citation Hearing Officer by delivering in person or by mail written notice within ten (10) days of the date thereof. The notice shall also inform the person cited that if he/she does not demand such a hearing, an assessment and judgment shall be entered against him/her and that such judgment may issue without further notice.

3. Each violation shall be a separate and distinct offense. In the case of the continuing violation, at the discretion of the Regulatory Compliance and Administrative Officer and with the prior consent of the Director of Operations, daily citations may be issued commencing two calendar days from receipt of the notice of violation.

D. Admission of liability by payment of fine.

If any person who is sent notice pursuant to this Section wishes to admit to liability for any alleged violation, he/she may, without requesting a hearing, pay the full amount of the fines, penalties, costs or fees admitted to. Payment may be made by cash, credit card, checks or money orders made payable to the City of Stamford and submitted in person or mailed to Cashiering & Permitting, City of Stamford, P.O. Box 10152, Stamford, CT 06904-2152.

E. Hearing on Notice of Violation

Any person may demand a hearing on any Notice of Violation and/or any fine by delivering a written request for the same to the Regulatory Compliance and Administrative Officer within ten (10) calendar days of the date of the first notice provided for in this section. Any person who does not deliver such written request shall be deemed to have admitted liability, and the Regulatory Compliance and Administrative Officer shall certify such person's failure to respond to the Hearing Officer. The Hearing Officer shall thereupon enter and assess the fines, penalties, costs or fees provided for by this Section and shall follow the procedures set forth in the Uniform Administrative Procedure Act, C.G.S. Sections 4-166 through 4189g.

Any person who requests a hearing shall be given written notice by certified mail of the date, time and place for the hearing. Such hearing shall be held not less than fifteen (15) calendar days or more than thirty (30) days from the date of the mailing of notice, provided that the Hearing Officer shall grant upon good cause shown a postponement or continuance for any reasonable request by any interested party. Once a hearing has been requested, no additional citations shall be issued.

The presences of the issuing official shall be required at the hearing if such person so requests. A person wishing to contest his/her liability shall appear at the hearing and may present evidence in his/her behalf.

If the person who demanded a hearing fails to appear, the Hearing Officer may enter an assessment by default against him/her upon finding of proper notice and liability under this Section.

A designated municipal official, other than the Hearing Officer, may present evidence on behalf of the municipality.

The Hearing Officer may accept from the designated municipal official, copies of police reports, investigatory and citation reports and other official documents by mail and may determine thereby that the appearance of the municipal official not necessary.

The Hearing Officer shall conduct the hearing in the order and form and with such methods of proof as he/she deems fair and appropriate. The rules regarding the admissibility of evidence shall not be strictly applied, but all testimony shall be given under oath or affirmation.

The Hearing Officer shall announce his/her decision at the end of the hearing.

1. If the Hearing Officer determines that the person is not liable, he/she shall dismiss the matter and enter his/her determination, in writing, accordingly.

2. If the Hearing Officer determines that a violation has occurred and that the person is liable for the violation, he/she shall then enter a determination that a violation has been committed and, as applicable, assess the fines, penalties, costs or fees against such person as provided by this Section, in writing, with a copy to the violator.

Sec. 201-13. Failure to Pay Fine

If such assessment is not paid on the date of entry, the Hearing Officer shall send first class mail a notice of the assessment to the person found liable and shall file, not less than thirty (30) calendar days nor more than twelve (12) months after such mailing, a certified copy of the notice of assessment with the Clerk of the Superior Court for the Small Claims Session in Stamford, together the required entry fee . The certified copy of the notice of assessment against the same person may be accrued and filed as one record assessment. Within such twelve-month period, assessments against the same person may be accrued and filed on record of assessment. The Clerk of the Court shall enter a judgment, in the amount of the assessment plus court costs against such person in favor of the City of Stamford. Notwithstanding any other provisions of the Connecticut General Statutes, the Hearing Officer's assessment, when so entered as a judgment, shall have the effect of a civil money judgment, and a levy of execution on such judgment may be issued without further notice to such person.

Sec. 201-14. Appeals.

A person against whom a determination of violation and/or an assessment has been entered is entitled to judicial review by way of appeal. An appeal shall be instituted within 30 days of the mailed of notice of violation and/or notice of assessment by filing a petition to reopen a determination of a violation and/or an assessment, together with the required entry fee pursuant to Section 52-259 of the Connecticut General Statues, in the Superior Court, which shall entitle such person to a hearing in accordance with the rules of the Superior Court.

Sec. 201-15. Measures After Appeal.

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or in the event of a decision of a Hearing Officer or of court in the case of an appeal, within five (5) calendar days of the decision upholding the action of the Regulatory Compliance and Administrative Officer, then representatives of the Authorized Enforcement Agency shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. It shall be unlawful for any person, Owner, agent or person in possession of any Premises to refuse to allow the Authorized Enforcement Agency or designated contractor to enter upon the Premises for the purposes set forth above.

Sec. 201-16. Cost of Abatement of the Violation.

Within five (5) calendar days after abatement of the violation, the owner of the property shall be notified of the cost of abatement, including administrative costs. The property owner may file a written protest objecting to the amount of the assessment within five (5) calendar days.If the amount due is not paid within a timely manner as determined by the decision of the Regulatory Compliance and Administrative Officer or by the expiration of the time in which to file an appeal, the charges shall become a special assessment against the property and shall constitute a lien on the property for the amount of the assessment.

Any person violating any of the provisions of this Section shall become liable to the City by reason of such violation. The liability shall be paid in not more than twelve (12) equal installments . Interest at the rate of set by the Superior Court for interest on judgments shall be assessed on the balance beginning on the first day following discovery of the violation.

Sec. 201-17. Injunctive Relief.

It shall be unlawful for any person to violate any provision or fail to comply with any of the requirements of this Ordinance. If a person has violated or continues to violate the provisions of this ordinance, the Regulatory Compliance and Administrative Officer may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

Sec. 201-18. Compensatory Action.

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the Regulatory Compliance and Administrative Officer may impose upon a violator alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, and distribution of environmental literature.

Sec. 201-19. Violations Deemed a Public Nuisance.

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance which is a threat to public health, safety, and welfare, and which is declared and deemed a nuisance, may be summarily abated or restored at the violator's expense, and/or a civil action may be brought to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

Sec. 201-20. Remedies Not Exclusive.

The remedies listed in this Ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Regulatory Compliance and Administrative Officer to seek cumulative remedies.

BE IT FURTHER ORDAINED that this Ordinance shall take effect immediately on approval.

Randall M. Skigen, President, and Annie M. Summerville, Clerk, do hereby certify that the foregoing Ordinance was approved by a machine vote of 31-5-1 by the 29th Board of Representatives at the Regular Board Meeting held on March 2, 2015.

Randall M. Skigen, President
Dated this 9th day of March, 2015

Annie M. Summerville, Clerk
Dated this 9th day of March, 2015

David R. Martin, Mayor, City of Stamford
Dated this 10 day of March, 2015

EFFECTIVE DATE: March 20, 2015

cc: Mayor David R. Martin
Michael Handler, Director of Administration
Jim Hricay, Director of OPM
Ernie Orgera, Director of Operations
Thomas Madden, Director of Economic Development
Kathryn Emmett, Esq., Law Department
Ted Jankowski, Director of Public Safety, Health & Welfare
Donna Loglisci, Town Clerk
Thomas Turk, Traffic & Road Maintenance Supervisor
Tyler Theder, Regulatory Compliance and Administrative Officer

APPENDIX J

2014-2015 IDDE SCREENING DATA SUMMARY TABLE

2014 - 2015 Dry Weather Outfall Screening Results
City of Stamford MS4

Site	Date	Time	Photo	Physical Condition	Other Defects	Illicit Discharges	Flow	Flow Estimation gallon/second	Conductivity µS	Turbidity NTU	DO mg/L	pH pH Units	Chlorine mg/L	Temp °C	Surfactants as (MBAS) ppm	Potassium mg/L	Ammonia mg/L	Fecal Coliform CFU/100mLs	*E. coli* CFU/100mLs
SON-0001	6/5/2015	1319	Yes	Intact	none	Foaming	Yes	0.05 (guess)	1879	0.83	10.23	7.1	0.70	15.6	0.25	8.0	0.01	400	360
SON-0003	6/18/2015	945	yes	intact	exposed rebar	none. Suspicious grey plume at 9:56am after initial observations were made	yes	>1 gal/sec; partially submerged pipe in river	1143	1.51	9.26	7.0	0.30	17.3	0.25	10.0	0.03	3300	3200
SON-0005	6/11/2015	1504	yes	Intact	Aprox 4ft in pipe, sticks and trash debris visible	Copper color to discharge water	Yes	constant but slow trickle, not enough flow to use bucket for estimation	942	73.30	6.07	7.1	0.40	18.2	0.75	13.0	0.42	212	64
SON-0007	6/18/2015	947	Yes	Intact	exposed rebar	none	Yes	>1 gal/sec; partially submerged pipe in river	1026	0.88	9.30	6.9	0.20	17.6	0.25	10.0	0.07	540	530
SON-0008	6/18/2015	1124	Yes	Intact	none	Brown Discoloration of water	Yes	minimal, river flooding in pipe. Can hear distant dumping inside pipe	1254	5.92	8.14	6.9	0.40	16.1	0.00	8.0	0.11	430	380
SON-0009	6/18/2015	1153	Yes	Intact	none	blue discoloration of water	Yes	Shallow constant sheet flow	1020	24.10	7.39	5.9	0.10	19.1	>3.0	8.0	0.93	720	40
SON-0027N	6/5/2015	1424	Yes	Intact	none	none	Yes	0.14	630	0.21	10.04	6.5	0.30	13.9	0.00	5.0	0.10	16	8
SON-0027S	6/5/2015	1424	Yes	Intact	none	none	Yes	0.06	872	0.24	10.09	6.1	0.30	12.8	0.00	5.0	0.07	40	40
SON-0029	6/18/2015	1146	Yes	Intact	Rebar exposed	grey discoloration of water, possible toilet paper on rocks at outfall	Yes	.19 (visual estimation)	1290	35.80	4.73	6.2	0.30	19.3	0.00	21.0	>2.5	290000	290000
SON-0041	6/5/2015	1000	Yes	Intact	Slightly jagged rim at bottom	none	yes	0.10	910	0.25	8.79	6.7	0.30	14.7	0.25	5.0	0.04	1100	1000
SON-0042	6/5/2015	1107	Yes	Intact	Rebar showing, erosion of concrete	Oil present in pool below outfall but sample taken does not look oily	Yes	0.31	1471	0.36	9.80	6.9	0.80	15.2	0.25	7.0	0.05	2600	1400
SON-0047	6/11/2015	1410	Yes	Intact	none	none	Yes	minimal but constant (not enough to use bucket)	815	0.31	9.25	7.0	0.40	22.4	0.00	6.0	0.00	124	76
SON-0078	6/11/2015	1718	Yes	Intact	none	none	yes	no estimation because pipe is submerged in river water, but could see flow movement in water	817	2.24	9.47	6.9	0.10	16.1	0.00	5.0	0.04	360	320
SON-0079	6/11/2015	1704	Yes	Intact	rebar showing	none	yes	0.13	1191	1.59	9.76	6.8	0.10	16.1	0.00	9.0	0.00	340	160
SON-0087	6/5/2015	834	Yes	Intact	Erosion on bottom, exposed rebar	Foaming	Yes	0.17	1370	0.36	9.5	6.8	0.1	15.2	0.25	6	0.01	6200	5400
SON-0088	6/5/2015	830	Yes	Intact	Broken concrete on rim	none	No	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

APPENDIX K

IDDE PRIORITY AREAS MAP

City of Stamforc

Map Key

- MS4Outfalls_92 record
- Hydrology
- Parks
- I-95 & Merritt Pkwy
- Major Arterials
- All Other Roads
- Railroads

sclaimer: Road information displayed on this map is for general
ference purposes only and is not represented as survey-accurate or up to date.
l information is subject to verification by any user. The City of Stamford assumes
) legal responsibility for the information contained herein.
ap printed 8/27/14

IDDE PRIORITY AREAS 6/30/2015

APPENDIX L

2014-2015 IN-STREAM SAMPLING DATA SUMMARY TABLE

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Noroton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014	7/22/2014
Magnitude of Storm	inches	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Event Type	-	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Date of Last Storm	-	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014	7/15/2014
LAB SAMPLE #	-	BG79433	BG79434	BG79435	BG79436	BG79437	BG79438	BG79439	BG79440	BG79441	BG79442
pH	S.U.	7.11	7.87	7.32	7.62	7.53	7.60	7.72	7.33	7.25	7.59
Temperature	°C	24.33	20.66	19.52	23.33	26.98	26.60	26.41	29.48	26.07	28.56
Specific Conductivity	µmhos/cm	352	308	265	549	532	506	452	3,723	10,156	785
Dissolved Oxygen	mg/L	7.67	7.43	6.69	6.75	6.75	7.80	7.46	7.66	5.52	7.11
B.O.D./5 day	mg/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chloride	mg/L	51.6	59.7	42.9	113	129	117	99.4	1,010	3,180	171
C.O.D.	mg/L	13	11	< 10	< 10	13	< 10	11	37	74	11
Hardness (CaCO3)	mg/L	73.4	59.9	68.7	119	105	100	88.1	421	1,100	177
MBAS	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	0.12	< 0.05	0.05	0.07	0.06	< 0.05
Phosphorus, as P	mg/L	0.05	0.07	0.04	0.08	0.06	0.06	0.06	0.08	0.18	0.12
Total Suspended Solids	mg/L	5.5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Oil and Grease, Total	mg/L	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Oil and Grease, TPH	mg/L	< 1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Copper	mg/L	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc	mg/L	0.002	<0.002	<0.002	0.006	0.004	<0.002	<0.002	0.003	0.013	0.009
Nitrite-N	mg/L	< 0.01	< 0.01	< 0.01	0.02	< 0.01	< 0.01	< 0.01	0.07	0.06	< 0.01
Nitrate-N	mg/L	0.14	0.56	0.07	1.09	0.78	0.85	0.71	1.97	1.77	0.8
Ammonia as Nitrogen	mg/L	0.14	0.12	0.12	0.23	0.11	0.13	0.1	1.05	0.38	0.13
Nitrogen Tot Kjeldahl	mg/L	0.62	0.65	0.55	0.76	0.64	0.64	0.56	4.56	0.86	0.55
Escherichia Coli	/100 mls	70	100	<10	520	300	480	170	>600	>600	430
Enterococci Bacteria	/100 mls	30	650	30	80	60	170	90	250	830	110
Fecal Coliforms	/100 mls	50	50	10	970	880	1,390	220	>2000	>2000	>2000
Aquatic Toxicity 24 hr	%	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Aquatic Toxicity 48 hr	%	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed

Notes:
Dry sampling event

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Nororon River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014	7/31/2014
Magnitude of Storm	inches	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Event Type	-	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
Date of Last Storm	-	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014	7/23/2014
LAB SAMPLE #	-	BG85272	BG85273	BG85274	BG82575	BG82576	BG82577	BG79439	BG79440	BG79441	BG79442
pH	S.U.	7.96	7.78	7.74	7.64	8.03	7.90	7.84	7.79	7.38	8.12
Temperature	°C	15.56	19.10	16.63	21.22	21.88	22.82	23.26	20.97	21.60	21.05
Specific Conductivity	µmhos/cm	249	271	222	518	572	522	485	5,464	9,023	696
Dissolved Oxygen	mg/L	6.87	7.58	6.27	6.09	0.14	6.52	6.96	6.37	4.81	6.67
B.O.D./5 day	mg/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chloride	mg/L	52.9	59.5	41.9	124	141	127	108	1,790	3,060	151
C.O.D.	mg/L	<10	24	24	19	22	17	17	57	118	19
Hardness (CaCO3)	mg/L	67.2	59.8	64.8	121	111	106	95	729	1,180	155
MBAS	mg/L	< 0.05	0.064	0.05	0.052	<0.05	< 0.05	<0.05	0.081	0.076	0.054
Phosphorus, as P	mg/L	0.04	0.04	0.03	0.06	0.03	0.07	0.05	0.12	0.18	0.13
Toral Suspended Solids	mg/L	<5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Oil and Grease, Toral	mg/L	<1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Oil and Grease, TPH	mg/L	<1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Copper	mg/L	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc	mg/L	0.002	<0.002	0.003	0.003	<0.002	0.005	<0.002	0.005	0.011	0.009
Nitrite-N	mg/L	0.08	0.45	0.04	1.19	0.81	0.94	0.72	1.36	1.61	0.62
Nitrate-N	mg/L	0.08	0.46	0.04	1.18	0.8	0.94	0.72	1.33	1.61	0.64
Ammonia as Nitrogen	mg/L	0.09	0.12	0.1	0.07	0.07	0.06	0.09	0.37	0.38	0.09
Nitrogen Tor Kjeldahl	mg/L	0.46	0.49	0.42	0.54	0.51	0.53	0.48	0.99	0.84	0.37
Escherichia Coli	/100 mls	120	10	30	370	370	300	240	>600	>600	180
Enterococci Bacteria	/100 mls	90	290	50	120	40	180	50	650	650	105
Fecal Coliforms	/100 mls	100	120	120	840	330	340	170	>2000	910	1410
Aquatic Toxicity 24 hr	%	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Aquatic Toxicity 48 hr	%	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed

Notes:
Dry sampling event

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Noroton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014
Magnitude of Storm	inches	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014	8/2/2014
LAB SAMPLE #	-	BG93011	BG93012	BG93013	BG93014	-	-	-	BG93015	BG93016	BG93017
pH	S.U.	5.93	5.78	5.77	7.28	-	-	-	6.06	7.33	6.10
Temperature	° C	20.33	20.59	20.65	22.40	-	-	-	23.08	22.66	22.67
Specific Conductivity	µmhos/cm	293	298	265	430	-	-	-	876	3,028	238
Dissolved Oxygen	mg/L	6.87	6.68	5.62	5.78	-	-	-	5.28	4.75	5.53
B.O.D./5 day	mg/L	< 4.0	< 4.0	< 4.0	< 4.0	-	-	-	< 4.0	< 4.0	< 4.0
Chloride	mg/L	49.2	54.3	42.7	67.0	-	-	-	204	885	36.7
C.O.D.	mg/L	16	18	18	21	-	-	-	25	42	29
Hardness (CaCO3)	mg/L	71.1	53.2	72.0	83.0	-	-	-	142	306	50.0
MBAS	mg/L	<0.05	0.07	<0.05	0.1	-	-	-	0.10	0.20	0.17
Phosphorus, as P	mg/L	0.05	0.09	0.04	0.16	-	-	-	0.19	0.19	0.14
Total Suspended Solids	mg/L	<5.0	6.0	< 5.0	13	-	-	-	18	10	12
Oil and Grease, Total	mg/L	<1.4	< 1.4	< 1.4	< 1.4	-	-	-	< 1.4	< 1.4	< 1.4
Oil and Grease, TPH	mg/L	<1.4	< 1.4	< 1.4	< 1.4	-	-	-	< 1.4	< 1.4	< 1.4
Copper	mg/L	<0.005	<0.005	0.012	0.008	-	-	-	0.013	0.012	0.016
Lead	mg/L	<0.002	<0.002	<0.002	0.002	-	-	-	0.003	0.003	0.005
Zinc	mg/L	0.002	0.004	0.003	0.018	-	-	-	0.005	0.043	0.045
Nitrite-N	mg/L	0.07	0.40	0.10	0.45	-	-	-	0.07	0.42	0.32
Nitrare-N	mg/L	0.07	0.41	0.10	0.47	-	-	-	0.07	0.43	0.32
Ammonia as Nitrogen	mg/L	0.06	0.07	0.10	0.19	-	-	-	0.11	0.32	0.18
Nitrogen Tot Kjeldahl	mg/L	0.42	0.64	0.54	1.15	-	-	-	1.68	1.16	0.91
Escherichia Coli	/100 mls	>600	>600	>600	>2000	-	-	-	>600	>2000	>2000
Enterococci Bacteria	/100 mls	700	>2000	>2000	>2000	-	-	-	>2000	>2000	>2000
Fecal Coliforms	/100 mls	440	>2000	830	>2000	-	-	-	>2000	>2000	>2000
24 hr. LC50	%	>100	>100	>100	>100	-	-	-	>100	>100	>100
48 hr. LC50	%	>100	>100	>100	>100	-	-	-	>100	>100	>100

Notes:
Wet sampling event
Rainfall data taken from http//:www.weatherunderground.com using weather station KCTSTAM14 located on Waterbury Avenue in Stamford, CT

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Noroton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014	9/25/2014
Magnitude of Storm	inches	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24	0.24
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014	9/21/2014
LAB SAMPLE #	-	BH19285	BH19286	BH19287	BH19288	BH19289	BH19290	BH19291	BH19292	BH19293	BH19294
pH	S.U.	-	-	-	6.09	7.84	10.18	7.91	10.04	7.61	10.33
Temperature	°C	12.35	13.36	13.43	15.46	15.81	15.40	15.93	15.35	16.15	16.73
Specific Conductivity	µmhos/cm	316	395	268	579	1627	637	544	8,561	18,740	625
Dissolved Oxygen	mg/L	8.49	8.08	7.90	6.09	7.22	8.34	8.76	7.16	5.66	7.23
B.O.D./5 day	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Chloride	mg/L	52.1	82.4	39.2	134.0	484	147	128	2,880	6,650	123
C.O.D.	mg/L	12	<10	12	<10	21	<10	12	82	298	<10
Hardness (CaCO3)	mg/L	79.6	77.2	71.3	123.0	169	119	105	865	2,090	146
MBAS	mg/L	0.062	0.056	0.075	0.054	0.052	0.062	<0.05	0.073	0.065	0.065
Phosphorus, as P	mg/L	0.03	0.03	0.02	0.04	0.05	0.03	0.05	0.13	0.17	0.22
Total Suspended Solids	mg/L	<5.0	<5.0	<5.0	<5.0	5.5	<5.0	<5.0	17	6.0	<5.0
Oil and Grease, Total	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Oil and Grease, TPH	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Copper	mg/L	<0.005	<0.005	0.047	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	0.023
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Zinc	mg/L	0.003	0.005	0.002	0.007	0.008	0.005	0.004	0.009	0.013	0.029
Nitrite-N	mg/L	<0.01	<0.01	<0.01	<0.01	0.09	<0.01	<0.01	0.01	0.03	<0.01
Nitrate-N	mg/L	0.10	0.69	<0.01	1.17	0.80	0.97	0.73	1.20	1.11	0.47
Ammonia as Nitrogen	mg/L	0.08	0.05	0.06	0.04	0.07	0.04	0.05	0.18	0.23	0.08
Nitrogen Tot Kjeldahl	mg/L	0.40	0.35	0.50	0.43	0.54	0.83	0.39	1.31	0.56	0.43
Escherichia Coli	/100 mls	60	40	10	>600	>600	>600	250	>600	>600	>600
Enterococci Bacteria	/100 mls	<10	<10	10	70	570	240	50	1080	800	400
Fecal Coliforms	/100 mls	30	30	10	850	>2000	710	280	>2000	>2000	1360
24 hr. LC50	%	>100%	>100%	>100%	>100%	>100%	>100%	>100%	>100%	53.60%	>100%
48 hr. LC50	%	>100%	>100%	>100%	>100%	>100%	>100%	>100%	>100%	36.60%	>100%

Notes:
Wet sampling event
Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Nororton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014	10/8/2014
Magnitude of Storm	inches	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014	10/4/2014
LAB SAMPLE #	-	BH24405	BH24406	BH24407	BH24408	BH24409	BH24410	BH24411	BH24412	BH24413	BH24414
pH	S.U.	7.16	7.54	7.83	9.01	10.27	7.66	7.76	7.31	9.38	7.80
Temperature	°C	13.58	15.86	17.47	17.52	17.92	17.55	17.05	17.86	18.30	18.09
Specific Conductivity	µmhos/cm	303	338	305	462	737	591	466	32,008	35,708	1,684
Dissolved Oxygen	mg/L	9.29	8.43	7.73	7.18	6.44	7.28	7.02	5.86	4.27	6.39
B.O.D./5 day	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Chloride	mg/L	50.7	65.9	39.9	93.1	127	116	97.5	11,000	12,700	119
C.O.D.	mg/L	14	16	18	<10	16	18	21	412	510	18
Hardness (CaCO3)	mg/L	72.0	69.4	70.7	101	101	92.2	87.1	3,840	4,270	129
MBAS	mg/L	0.073	<0.05	<0.05	<0.05	0.059	<0.05	0.063	0.11	0.059	0.099
Phosphorus, as P	mg/L	0.04	0.03	0.03	0.04	0.04	0.06	0.05	0.73	0.31	0.23
Total Suspended Solids	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	14	<5.0	<5.0
Oil and Grease, Total	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Oil and Grease, TPH	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Copper	mg/L	<0.005	<0.005	0.063	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005
Lead	mg/L	<0.002	0.003	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	0.005	<0.002
Zinc	mg/L	<0.002	<0.002	<0.002	0.004	0.004	0.004	0.005	0.008	0.015	0.023
Nitrite-N	mg/L	0.16	0.35	<0.01	0.61	0.52	0.53	0.45	<0.50	<0.50	0.42
Nitrate-N	mg/L	0.16	0.35	<0.05	0.61	0.52	0.53	0.45	<0.50	<0.50	0.42
Ammonia as Nitrogen	mg/L	0.10	0.05	0.10	0.08	0.08	0.06	0.05	0.31	0.19	0.12
Nitrogen Tot Kjeldahl	mg/L	0.47	0.43	0.52	0.53	0.48	0.45	0.45	0.65	0.46	0.67
Escherichia Coli	/100 mls	70	120	<10	360	880	460	350	13,000	1,320	2,760
Enterococci Bacteria	/100 mls	160	150	<10	390	610	530	350	>2,000	1,060	>2,000
Fecal Coliforms	/100 mls	90	220	<10	440	1,110	1,340	610	>2,000	>2,000	>2,000
24 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Wet sampling event
Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Nororon River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
Magnitude of Storm	inches	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014	10/11/2014
LAB SAMPLE #	-	BH28464	BH28455	BH28456	BH28457	BH28458	BH28459	BH28460	BH28461	BH28462	BH28463
pH	S.U.	7.36	7.07	7.11	7.11	7.50	7.38	7.23	7.07	6.89	7.60
Temperature	°C	19.04	18.00	17.54	19.34	20.02	19.87	16.80	20.37	20.23	20.40
Specific Conductivity	µmhos/cm	316	280	280	237	197	265	428	369	706	750
Dissolved Oxygen	mg/L	0.19	0.50	0.32	7.17	7.15	0.16	8.89	0.20	0.16	0.17
B.O.D./5 day	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
Chloride	mg/L	54.6	50.5	40.7	40.0	32.2	50.5	92.9	180	180	53.4
C.O.D.	mg/L	21	29	18	23	25	25	23	31	23	27
Hardness (CaCO3)	mg/L	75.8	61.4	82.7	51.4	38.0	47.6	83.8	138	82.3	69.3
MBAS	mg/L	0.09	0.064	<0.05	0.058	0.065	0.077	<0.05	0.06	0.05	0.09
Phosphorus, as P	mg/L	0.07	0.07	0.03	0.11	0.13	0.12	0.07	0.11	0.27	0.17
Total Suspended Solids	mg/L	6.0	5.0	<5.0	7.5	9.5	7.5	5.5	10	57	12
Oil and Grease, Total	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Oil and Grease, TPH	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Copper	mg/L	<0.005	<0.005	0.038	0.015	0.008	<0.005	<0.005	<0.005	0.011	0.008
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.006	<0.002
Zinc	mg/L	<0.002	0.008	<0.002	0.015	0.016	0.013	0.008	0.011	0.043	0.026
Nitrite-N	mg/L	0.11	0.55	<0.01	0.28	0.29	0.27	0.44	0.19	0.51	0.51
Nitrate-N	mg/L	0.11	0.55	<0.01	0.28	0.26	0.27	0.47	0.19	0.56	0.49
Ammonia as Nitrogen	mg/L	0.08	0.06	0.07	0.04	0.05	0.05	0.06	0.22	0.14	0.18
Nitrogen Tot Kjeldahl	mg/L	0.60	0.65	0.56	0.63	0.58	0.51	0.52	1.37	0.85	1.14
Escherichia Coli	/100 mls	3,650	4,880	10	>24,200	15,530	15,530	3,650	3,650	>24,200	19,860
Enterococci Bacteria	/100 mls	280	11,200	<10	24,200	19,860	15,530	1,090	1,040	890	7,270
Fecal Coliforms	/100 mls	1,940	>2,000	<10	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000	>2,000
24 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Wet sampling event
Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Noroton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014	10/23/2014
Magnitude of Storm	inches	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014	10/16/2014
LAB SAMPLE #	-	BH31310	BH31311	BH31312	BH31313	BH31314	BH31315	BH31316	BH31317	BH31318	BH31319
pH	S.U.	7.52	7.27	7.92	7.63	7.56	8.26	7.59	7.97	7.85	8.13
Temperature	°C	11.69	10.62	12.50	12.63	11.65	10.80	11.11	11.97	12.28	11.47
Specific Conductivity	µmhos/cm	194	194	174	433	283	367	435	4,368	1,192	344
Dissolved Oxygen	mg/L	8.78	8.34	8.76	8.34	8.81	9.08	0.40	0.23	8.34	8.64
B.O.D./5 day	mg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	4.0	4.0
Chloride	mg/L	50.7	59.2	39.8	82.7	54.2	69.9	102	2,660	263	60.0
C.O.D.	mg/L	16	21	14	18	25	18	16	89	23	21
Hardness (CaCO3)	mg/L	73.8	59.6	72.7	77.1	47.5	61.9	77.0	735	91.7	51.5
MBAS	mg/L	<0.05	<0.05	<0.05	0.061	0.053	<0.05	<0.05	<0.05	<0.05	<0.05
Phosphorus, as P	mg/L	0.04	0.04	0.03	0.08	0.10	0.08	0.05	0.10	0.14	0.15
Total Suspended Solids	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	5.0
Oil and Grease, Total	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Oil and Grease, TPH	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4
Copper	mg/L	<0.005	<0.005	0.021	<0.005	<0.005	<0.005	<0.005	0.005	0.005	0.005
Lead	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Zinc	mg/L	0.023	0.010	0.006	0.015	0.012	0.011	0.008	0.010	0.027	0.023
Nitrite-N	mg/L	0.11	0.07	<0.01	0.45	0.22	0.26	0.39	0.13	0.50	0.42
Nitrate-N	mg/L	0.11	0.07	<0.05	0.45	0.22	0.26	0.39	0.13	0.50	0.42
Ammonia as Nitrogen	mg/L	0.18	0.06	0.06	0.07	0.03	0.04	0.04	0.21	0.09	0.21
Nitrogen Tot Kjeldahl	mg/L	0.49	0.46	0.39	0.44	0.43	0.43	0.45	0.84	0.56	0.86
Escherichia Coli	/100 mls	110	470	<10	3,870	8,660	5,170	500	3,870	4,880	19,860
Enterococci Bacteria	/100 mls	40	300	<10	9,800	14,140	10,460	210	660	740	1,240
Fecal Coliforms	/100 mls	80	520	<10	>2000	>2000	>2000	480	>2000	>2000	>2000
24 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:
Wet sampling event
Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Nororton River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	Not Sampled	Not Sampled	Not Sampled	Not Sampled	11/6/2014	11/6/2014	11/6/2014	Not Sampled	Not Sampled	Not Sampled
Magnitude of Storm	inches	-	-	-	-	0.32	0.32	0.32	-	-	-
Event Type	-	-	-	-	-	WET	WET	WET	-	-	-
Date of Last Storm	-	-	-	-	-	11/1/2014	11/1/2014	11/1/2014	-	-	-
LAB SAMPLE #	-	-	-	-	-	BH37347	BH37348	BH37349	-	-	-
pH	S.U.	-	-	-	-	7.47	7.41	7.29	-	-	-
Temperature	°C	-	-	-	-	8.32	8.70	10.21	-	-	-
Specific Conductivity	µmhos/cm	-	-	-	-	342	343	291	-	-	-
Dissolved Oxygen	mg/L	-	-	-	-	13.00	8.85	7.80	-	-	-
B.O.D./5 day	mg/L	-	-	-	-	<4.0	<4.0	<4.0	-	-	-
Chloride	mg/L	-	-	-	-	130	133	105	-	-	-
C.O.D.	mg/L	-	-	-	-	14	14	14	-	-	-
Hardness (CaCO3)	mg/L	-	-	-	-	111	112	94.2	-	-	-
MBAS	mg/L	-	-	-	-	0.068	0.087	0.062	-	-	-
Phosphorus, as P	mg/L	-	-	-	-	0.06	0.04	0.05	-	-	-
Total Suspended Solids	mg/L	-	-	-	-	<5.0	<5.0	<5.0	-	-	-
Oil and Grease, Total	mg/L	-	-	-	-	<1.4	<1.4	<1.4	-	-	-
Oil and Grease, TPH	mg/L	-	-	-	-	<1.4	<1.4	<1.4	-	-	-
Copper	mg/L	-	-	-	-	<0.005	<0.005	<0.005	-	-	-
Lead	mg/L	-	-	-	-	<0.002	<0.002	<0.002	-	-	-
Zinc	mg/L	-	-	-	-	0.013	0.010	0.010	-	-	-
Nitrite-N	mg/L	-	-	-	-	<0.01	<0.01	<0.01	-	-	-
Nitrate-N	mg/L	-	-	-	-	0.44	0.56	0.44	-	-	-
Ammonia as Nitrogen	mg/L	-	-	-	-	0.05	0.06	<0.02	-	-	-
Nitrogen Tot Kjeldahl	mg/L	-	-	-	-	0.39	0.39	0.31	-	-	-
Escherichia Coli	/100 mls	-	-	-	-	9,210	910	280	-	-	-
Enterococci Bacteria	/100 mls	-	-	-	-	1,620	660	100	-	-	-
Fecal Coliforms	/100 mls	-	-	-	-	>2000	1,130	510	-	-	-
24 hr. LC50	%	-	-	-	-	N/A	N/A	N/A	-	-	-
48 hr. LC50	%	-	-	-	-	N/A	N/A	N/A	-	-	-

Notes:
Wet sampling event
Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

CITY OF STAMFORD MS4 INSTREAM SAMPLING RESULTS
STAMFORD, CONNECTICUT

PARAMETER	UNITS	ISS-001	ISS-002	ISS-003	ISS-004	ISS-005	ISS-006	ISS-007	ISS-008	ISS-009	ISS-010
DSN	-	DSN-001	DSN-002	DSN-003	DSN-004	DSN-005	DSN-006	DSN-007	DSN-008	DSN-009	DSN-010
Description	-	Mianus River (7407)	East Mianus River (7406)	Mill River (7403)	Nororon River (7403)	Rippowam River "A" (7405)	Rippowam River "B" (7405)	Rippowam River "C" (7405)	LIS Coastal Watershed "A" (7000)	LIS Coastal Watershed "B" (7000)	LIS Coastal Watershed "C" (7000)
Latitude	dec. deg	41.10746	41.13363	41.1648	41.06329	41.05458	41.066	41.08963	41.02823	41.04359	41.04414
Longitude	dec. deg	-73.58722	-73.58796	-73.54427	-73.50879	-73.54503	-73.55778	-73.55925	-73.55566	-73.51705	-73.56443
Receiving Stream	-	Long Island Sound	Mianus River	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound	Long Island Sound
Date of Sample	-	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015	4/20/2015
Magnitude of Storm	inches	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19	2.19
Event Type	-	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
Date of Last Storm	-	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015	4/17/2015
LAB SAMPLE #	-	BJ04785	BJ04786	BJ04787	BJ04788	BJ04789	BJ04790	BJ04791	BJ04792	BJ04793	BJ04794
pH	S.U.	7.51	8.28	8.12	7.35	8.37	7.17	6.17	7.22	7.92	7.21
Temperature	°C	10.14	9.76	9.83	11.55	9.77	8.10	9.94	9.84	9.29	8.34
Specific Conductivity	µmhos/cm	244	238	167	421	362	328	88	466	3.839	388
Dissolved Oxygen	mg/L	7.40	9.77	9.11	6.06	9.15	9.77	10.22	8.98	9.50	10.26
B.O.D./5 day	mg/L	<4.0	<4.0	<4.0	<4.0	15	<4.0	<4.0	17	13	21
Chloride	mg/L	78.2	85.7	53.4	130	110	135	30.1	139	1,780	135
C.O.D.	mg/L	<10	89	<10	12	31	12	34	119	214	156
Hardness (CaCO3)	mg/L	69.2	58.9	61.5	121	65.4	94.0	24.3	97.3	706	109
MBAS	mg/L	<0.05	0.19	0.07	0.06	0.10	0.07	0.09	0.21	0.26	0.21
Phosphorus, as P	mg/L	0.03	0.17	0.03	0.04	0.10	0.02	0.11	0.54	0.34	0.70
Total Suspended Solids	mg/L	<5.0	74	<5.0	<5.0	52	<5.0	51	150	92	280
Oil and Grease, Total	mg/L	<1.4	1.5	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	6
Oil and Grease, TPH	mg/L	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	3.8
Copper	mg/L	<0.005	0.010	<0.005	<0.005	0.014	<0.005	0.014	0.083	0.021	0.067
Lead	mg/L	<0.002	0.008	<0.002	<0.002	0.007	0.003	0.009	0.019	0.008	0.029
Zinc	mg/L	<0.002	0.039	0.005	0.008	0.059	0.004	0.052	0.084	0.092	0.257
Nitrite-N	mg/L	0.36	0.30	0.22	0.99	0.52	0.70	0.17	0.31	0.86	0.54
Nitrate-N	mg/L	0.36	0.30	0.22	0.99	0.52	0.70	0.17	0.31	0.86	0.54
Ammonia as Nitrogen	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.19	0.32
Nitrogen Tot Kjeldahl	mg/L	0.15	0.79	0.19	0.27	0.77	0.26	0.52	2.34	1.36	2.43
Escherichia Coli	/100 mls	10	30	<10	230	3,870	30	220	5,790	4,110	9,800
Enterococci Bacteria	/100 mls	<10	130	<10	100	6,450	10	60	1,110	12,030	11,200
Fecal Coliforms	/100 mls	<10	270	20	370	>2,000	80	210	>2000	>2000	>2000
24 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48 hr. LC50	%	NA	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

Wet sampling event

Rainfall data taken from National Weather Service Guaging Station in White Plains, NY

APPENDIX M

2014-2015 WET WEATHER OUTFALL MONITORING SUMMARY TABLE

City of Stamford Stormwater outfalls						
CT0030279						
dsn			sw# SON-0043	sw# SON-0073	sw# SON-0072	sw# SON-0024
Description			Meadowpark Ave. East - located in park area	Dannell Drive - E. side of headwall	White Birch Lane - S. side of bridge	Green Street - end of street
Latitude			41.0905397273	41.0893227234	41.0863567840	41.0572373085
Longitude			-73.5535555720	-73.5452427764	-73.5437329857	-73.5462322356
Recieving Stream			Rippowam River	undetermined	undetermined	Rippowan River
Date of sample			12/9/2014	12/9/2014	12/9/2014	12/9/2014
Magnitude of storm			2.55 in	2.55 in	2.55 in	2.55 in
Dateof last storm			12/6/2014	12/6/2014	12/6/2014	12/6/2014
param	ml	units				
pH		s.u	7.02	6.68	6.09	7.27
Temperature		C	5.11	4.80	4.94	5.25
Dissolved Oxygen		mg/l	11.16	8.19	10.96	8.09
Hardness as CaCO3		mg/l	3.0	25.4	22.8	25.9
Chlorides			124	10.8	9.7	<3.0
Specific Conductance		u/mhos	260	48	58	37
Biochemical Oxygen Demand		mg/l	<4.0	<4.0	<4.0	4.3
Chemical Oxygen Demand		mg/l	10	29	16	12
Total Suspended Solids		mg/l	13	83	55	130
Ammonia Nitrogen as N		mg/l	0.06	0.10	0.11	0.1
Nitrate Nitrogen as N		mg/l	<0.05	0.55	0.40	0.23
Nitrite Nitrogen as N		mg/l	0.02	0.55	0.42	0.23
Total Kjeldahl Nitrogen		mg/l	0.43	1.01	1.25	1.52
Phosphorus		mg/l	0.09	0.28	0.27	0.35
Oil & Grease		mg/l	<1.4	<1.4	<1.4	1.7
Surfactants		mg/l	<0.05	0.08	0.07	0.08
Residual Chlorine, Total	20	ug/l	NA	NA	NA	NA
Copper, Total	5	ug/l	15	9	9	24
Zinc, Total	10	ug/l	13	35	35	133
Lead, Total	5	ug/l	3	7	7	45
Total Petroleum Hydrocarbons*		ug/l	<1.4	<1.4	<1.4	<1.4
Enterococci		# col/100 ml	1,720	4,880	6,130	7,700
Escherichia coli		# col/100 ml	1,020	4,350	5,790	8,160
Fecal Coliform		# col/100 ml	610	>2000	>2000	>2000
* please include laboratory report forTotal Petroluem Hydrocarbons for Each outfall						

City of Stamford Stormwater outfalls												
CT0030279												
DSN			sw#_SON-0001__	sw#__SON-0002_	sw#_SON-0003__	sw#__SON-0004_	sw#_SON-0005__	sw#__SON-0007_	sw#_SON-0009__	sw#__SON-0012_	sw#_SON-0014__	sw#__SON-0015_
Description			Shippan Avenue- end of street	Coldspring Road-adjacent to N. side of bridge	Washington Bvld. And Fourth St.-South Outfall	Division Street-end of street	Poplar Street-end of street	Washington Bvld. And Fourth St.-North Outfall	Mill River Park- adjacent to Mill River St.	Westover Lane- south side of road	Mitchell Street- end of street	Downs Avenue- behind 135 Downs Ave.
Latitude			41.0217075451	41.0661923518	41.0644664729	41.0493910166	41.0793950730	41.0644923360	41.0540863882	41.0696367387	41.0348180265	41.0328337267
Longitude			-73.5216214254	-73.5578940580	-73.5459581949	-73.5457393736	-73.5177931937	-73.5459897645	-73.5457236008	-73.5722318717	-73.5312300909	-73.5328645573
Recieving Stream			Long Island Sound	Rippowam River	Rippowam River	Rippowam River	Nororton River	Rippowam River	Rippowam River	Mianus River	Stamford Harbor/LIS	Stamford Harbor/LIS
Date of sample			6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015
Magnitude of storm			0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in
Date of last storm			5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015
PARAMETER	ml	units										
pH		s.u	7.70	7.32	7.08	7.90	8.02	7.96	7.86	7.62	7.09	7.52
Temperature		C	14.86	14.61	14.69	15.68	16.21	14.87	15.86	15.07	15.04	15.44
Dissolved Oxygen		mg/l	8.74	7.99	8.43	8.47	0.29	9.16	8.35	8.47	9.59	8.47
Specific Conductance		µmhos/cm	426	312	301	251	995	225	263	268	1048	27,886
B.O.D./5 day		mg/L	< 4.0	4.1	< 4.0	< 4.0	5.4	< 4.0	6.8	< 4.0	< 4.0	< 4.0
Chloride		mg/L	78.3	56.6	53.1	58.7	324	54.6	81.2	37.8	605	15,900
C.O.D.		mg/L	29	40	36	29	36	31	31	42	48	381
Escherichia Coli		MPN/100 mls	19,860	7270	>24200	1460	>24200	17,330	4,610	9,800	3,870	840
Enterococci Bacteria		MPN/100 mls	>24200	1300	>24200	5480	>24200	>24200	9,210	>24200	>24200	6,490
Fecal Coliforms		/100 mls	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000
Hardness (CaCO3)		mg/L	52.9	76.3	57.4	72.6	42.0	54.2	62.2	57.0	182	4,330
MBAS		mg/L	0.09	0.10	0.07	0.09	0.12	0.08	1.31	0.14	0.12	0.06
Ammonia as Nitrogen		mg/L	0.09	0.11	< 0.05	0.12	0.38	0.07	0.25	0.22	0.33	0.08
Nitrite-N		mg/L	0.02	0.01	0.01	0.02	0.05	0.01	0.03	0.02	0.02	< 0.01
Nitrate-N		mg/L	0.90	0.82	0.90	1.88	0.73	0.88	1.00	1.58	0.73	0.03
Oil and Grease by EPA 1664		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	1.7	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Coliforms		MPN/100 mls	>24200	>24200	>24200	>24200	>24200	>24200	>24200	>24200	>24200	>24200
Nitrogen Tot Kjeldahl		mg/L	0.75	0.78	0.84	1.01	1.65	0.93	0.93	1.41	1.35	0.35
O&G, Non-polar Material		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Phosphorus, as P		mg/L	0.15	0.1	0.17	0.10	0.15	0.16	0.12	0.21	0.26	0.17
Total Suspended Solids		mg/L	< 5.0	6	7.5	13	< 5.0	7.5	7.5	6.0	9.0	31
Copper		mg/L	0.036	0.009	0.008	0.02	0.017	0.007	0.018	0.013	0.017	< 0.025
Lead		mg/L	< 0.002	< 0.002	< 0.002	0.003	0.003	< 0.002	0.003	< 0.002	< 0.002	< 0.010
Zinc		mg/L	0.009	0.018	0.012	0.03	0.036	0.012	0.053	0.009	0.013	0.013
* please include laboratory report forTotal Petroluem Hydrocarbons for Each outfall												

City of Stamford Stormwater outfalls												
CT0030279												
DSN			sw#_SON-0016_	sw#_SON-0027_	sw#_SON-0031_	sw#_SON-0034_	sw#_SON-0041_	sw#_SON-0042_	sw#_SON-0047_	sw#_SON-0054_	sw#_SON-0055_	sw#_SON-0063_
Description			Undeveloped parcel north of 1 Ralsey Rd. South	Ocean View Drive-end of street adjacent to beach	Tresser Bvld.-adjacent to bridge on S. side	West View Lane- N side of street, off Westover Rd.	Cove Island Park- adjacent to S. end of parking lot	Intersection of Cove Road and Weed Ave.	Lenox Avenue- end of street	Backyard of Research Drive-north outfall	Backyard of Research Drive-south outfall	Columbus Place- backyard of 71/65
Latitude			41.0317192105	41.0269307260	41.0504527022	41.0675779534	41.0451296618	41.0905912850	41.0686246315	41.0762944865	41.0762663461	41.0981579182
Longitude			-73.5321679427	-73.5191093438	-73.5459382070	-73.5689701161	-73.5047957106	-73.5031371799	-73.5100903417	-73.5171610178	-73.5171497221	-73.5128753166
Recieving Stream			Stamford Harbor/LIS	Long Island Sound	Rippowam River	Mianus River	Cove Harbor/LIS	Cove Harbor/LIS	Noroton River	Noroton River	Noroton River	Noroton River
Date of sample			6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015
Magnitude of storm			0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in
Date of last storm			5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015
PARAMETER	ml	units										
pH		s.u	7.37	7.96	7.70	7.54	7.57	7.28	7.49	7.85	7.91	7.85
Temperature		C	15.21	14.09	15.83	15.02	15.10	16.07	15.63	16.17	16.10	17.52
Dissolved Oxygen		mg/l	9.23	10.64	8.08	7.91	9.21	9.83	8.19	8.59	8.65	8.05
Specific Conductance		µmhos/cm	1875	571	571	264	358	428	3110	371	347	347
B.O.D./5 day		mg/L	< 4.0	< 4.0	6.1	< 4.0	< 4.0	5.3	6.5	< 4.0	4.3	< 4.0
Chloride		mg/L	610	140	226	36.6	104	155	1,520	72.2	69.2	74.1
C.O.D.		mg/L	31	12	29	46	21	23	72	36	38	25
Escherichia Coli		MPN/100 mls	5,170	1,400	>24200	12,030	19,860	>24200	9,210	>24200	>24200	7,270
Enterococci Bacteria		MPN/100 mls	15,530	1,530	17,330	>24200	>24200	>24200	8,660	>24200	>24200	9,800
Fecal Coliforms		/100 mls	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000
Hardness (CaCO3)		mg/L	211	158	132	52.2	93.7	81.7	77.2	83.3	63.9	71.7
MBAS		mg/L	0.07	< 0.05	0.14	0.09	0.09	0.11	0.12	0.09	0.2	0.08
Ammonia as Nitrogen		mg/L	0.08	< 0.05	0.42	0.24	0.07	0.14	0.10	0.05	0.10	0.06
Nitrite-N		mg/L	< 0.01	< 0.01	0.03	0.02	0.05	0.01	0.02	0.01	0.02	0.01
Nitrate-N		mg/L	1.17	4.20	1.69	1.11	3.88	2.16	0.75	0.85	0.83	0.41
Oil and Grease by EPA 1664		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Coliforms		MPN/100 mls	>24200	24,200	>24200	>24200	>24200	>24200	>24200	>24200	>24200	>24200
Nitrogen Tot Kjeldahl		mg/L	0.63	1.22	2.03	1.68	1.11	1.38	9.56	1.20	1.10	0.67
O&G, Non-polar Material		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Phosphorus, as P		mg/L	0.11	0.08	0.26	0.23	0.20	0.14	0.22	0.18	0.2	0.11
Total Suspended Solids		mg/L	< 5.0	< 5.0	6.0	< 5.0	< 5.0	5.0	< 5.0	6.0	5.5	19
Copper		mg/L	0.026	0.019	0.014	0.012	0.014	0.008	0.215	0.007	0.007	< 0.005
Lead		mg/L	< 0.002	< 0.002	0.003	0.003	< 0.002	< 0.002	0.004	< 0.002	< 0.002	0.002
Zinc		mg/L	0.017	0.005	0.031	0.009	0.034	0.024	0.028	0.017	0.016	0.007
* please include laboratory report forTotal Petroluem Hydrocarbon												

City of Stamford Stormwater outfalls							
CT0030279							
DSN			sw#__SON-0078_	sw#_SON-0079__	sw#__SON-0084_	sw#_SON-0085__	sw#__SON-0088_
Description			Haig Ave.- located in southern park area	Haig Ave.- located in northern park area	Westover Lane- north side of road	Weed Ave.- adjacent to Birch Street	Weed Ave.and Matthews St. N outfall
Latitude			41.0932525056	41.0944900758	41.0700018363	41.0574858496	41.0547986557
Longitude			-73.5267322856	-73.5269381623	-73.5733626722	-73.5052846949	-73.5038286723
Recieving Stream			Noroton River	Noroton River	Minanus River	Holly Pond/ LIS	Holly Pond/LIS
Date of sample			6/1/2015	6/1/2015	6/1/2015	6/1/2015	6/1/2015
Magnitude of storm			0.65 in	0.65 in	0.65 in	0.65 in	0.65 in
Date of last storm			5/27/2015	5/27/2015	5/27/2015	5/27/2015	5/27/2015
PARAMETER	ml	units					
pH		s.u	7.80	7.62	7.89	7.74	7.90
Temperature		C	15.95	17.45	14.98	14.91	14.44
Dissolved Oxygen		mg/l	8.40	7.69	8.53	8.75	9.40
Specific Conductance		µmhos/cm	560	923	245	544	465
B.O.D./5 day		mg/L	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chloride		mg/L	142	330	39.1	182	186
C.O.D.		mg/L	44	18	42	18	16
Escherichia Coli		MPN/100 mls	4,110	2,760	19,860	17,330	630
Enterococci Bacteria		MPN/100 mls	19,860	7,270	>24200	>24200	120
Fecal Coliforms		/100 mls	>2000	>2000	>2000	>2000	900
Hardness (CaCO3)		mg/L	94	119	50.0	135	107
MBAS		mg/L	0.08	0.08	0.09	0.07	0.06
Ammonia as Nitrogen		mg/L	0.07	0.08	0.15	0.08	0.18
Nitrite-N		mg/L	< 0.01	< 0.01	0.02	0.02	< 0.01
Nitrate-N		mg/L	1.33	1.08	0.98	2.31	2.75
Oil and Grease by EPA 1664		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Coliforms		MPN/100 mls	>24200	>24200	>24200	>24200	>24200
Nitrogen Tot Kjeldahl		mg/L	1.10	1.13	1.21	1.09	0.91
O&G, Non-polar Material		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Phosphorus, as P		mg/L	0.16	0.10	0.20	0.15	0.21
Total Suspended Solids		mg/L	6.5	< 5.0	8.5	< 5.0	< 5.0
Copper		mg/L	0.007	0.007	0.008	0.010	0.008
Lead		mg/L	< 0.002	< 0.002	0.003	0.003	< 0.002
Zinc		mg/L	0.009	0.008	0.008	0.024	0.035
* please include laboratory report forTotal Petroluem Hydrocarbon							

City of Stamford Stormwater outfalls
CT0030279

DSN			sw#_SON-0006	sw#_SON-0011	sw#_SON-0033	sw#_SON-0036	sw#_SON-0044	sw#_SON-0056	sw#_SON-0059	sw#_SON-0061	sw#_SON-0062	sw#_SON-0064
Description			Sellect Street- behind 328 Sellect (in manhole)	Southfield Avenue-behind 112 Southfield Avenue	Soundview Drive	Weed Avenue- adjacent to E. Main Street	Maple Tree Avenue- south side of bridge	Old Colony Road- adjacent to backyard of 3 Old Colony Road	Hope Street- adjacent to springdale school ballfield	Oenoke Place- backyard of Riveroak Condos	Ceretta Street-end of the street	Rive Place-end of the street
Latitude			41.0397138511	41.0367845578	41.0399439099	41.0601059906	41.0720576876	41.1024821181	41.0993248011	41.0983517691	41.0961362141	41.1000083580
Longitude			-73.5615231699	-73.5450658973	-73.5140455080	-73.5075293555	-73.5111161208	-73.5190955121	-73.5172815650	-73.5172461371	-73.5139077964	-73.5115226528
Recieving Stream			Long Island Sound	Stamford Harbor/LIS	Westcitt Cove/LIS	Holly Pond/LIS	Noroton River	Noroton River	Noroton River	Noroton River	Noroton River	Noroton River
Date of sample			6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015
Magnitude of storm			0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in
Date of last storm			6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
PARAMETER	ml	units										
pH		s.u	7.55	7.22	6.93	7.03	7.20	7.67	7.46	7.47	7.23	7.59
Temperature		C	21.44	23.21	19.63	19.94	19.98	19.13	18.53	19.37	21.01	20.49
Dissolved Oxygen		mg/l	7.33	7.36	6.40	7.64	7.25	4.98	7.31	9.52	9.25	9.24
Specific Conductance		µmhos/cm	73	491	15,949	603	158	347	475	286	53	114
B.O.D./5 day		mg/L	8.7	8.1	5.3	< 4.0	4.3	< 4.0	< 4.0	< 4.0	4.3	12
Chloride		mg/L	8.5	135	8,960	188	23.7	84.4	126	55.8	4.8	8.2
C.O.D.		mg/L	31	48	335	12	33	78	21	27	25	83
Escherichia Coli		MPN/100 mls	310	>24200	24,200	13,000	24,200	14,140	100	17,330	10,460	24,200
Enterococci Bacteria		MPN/100 mls	70	1,340	>24200	14,140	14,140	24,200	120	24,200	19,860	>24200
Fecal Coliforms		/100 mls	>2000	>2000	>2000	>2000	>2000	>2000	70	>2000	>2000	>2000
Hardness (CaCO3)		mg/L	10.3	91.7	2,200	148	36.4	82.1	73.4	55.2	7.5	25.1
MBAS		mg/L	0.23	0.05	0.014	0.10	0.26	0.05	0.06	0.1	0.1	0.13
Ammonia as Nitrogen		mg/L	0.22	0.42	0.08	0.11	0.06	0.12	0.08	0.08	0.14	0.39
Nitrite-N		mg/L	0.30	0.65	0.37	2.04	0.35	0.72	1.19	0.73	0.21	0.23
Nitrate-N		mg/L	0.27	0.62	0.36	2.02	0.32	0.70	1.18	0.72	0.2	0.21
Oil and Grease by EPA 1664		mg/L	1.5	1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	3.5
Total Coliforms		MPN/100 mls	>24200	>24200	>24200	>24200	>24200	>24200	1,410	>24200	>24200	>24200
Nitrogen Tot Kjeldahl		mg/L	0.96	1.69	0.71	1.08	0.59	1.83	0.66	0.7	0.66	4.6
O&G, Non-polar Material		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	2.0
Phosphorus, as P		mg/L	0.09	0.34	0.24	0.19	0.13	0.37	0.20	0.15	0.16	0.43
Total Suspended Solids		mg/L	6.0	26	19	< 5.0	14	53	< 5.0	17	20.0	250
Copper		mg/L	0.012	0.031	0.007	0.007	0.038	0.017	0.007	0.007	0.009	0.020
Lead		mg/L	< 0.002	0.009	< 0.002	0.004	0.004	0.022	< 0.002	0.006	0.012	0.006
Zinc		mg/L	0.048	0.07	0.013	0.032	0.045	0.064	0.025	0.027	0.03	0.064

* please include laboratory report forTotal Petroluem Hydrocarbons for Each outfall

City of Stamford Stormwater outfalls										
CT0030279										
DSN			sw#_SON-0065_	sw#__SON-0067_	sw#_SON-0068__	sw#__SON-0070_	sw#_SON-0071__	sw#__SON-0075_	sw#__SON-0076_	sw#_SON-0077__
Description			Garland Drive-adjacent to 92 Camp Avenue	Regent Court-backyard to 32 Regent Court	Regent Court-backyard of 12 Regent Court	Loveland Road-backyard of 305 Loveland Road	Crestwood Drive-backyard of 90 crestewood Drive	Woods End Road-backyard of 65 Woods End Road	Woods End Road- E. side of Land Trust parcel	Woods End Road- backyard of 57 Woods End Road
Latitude			41.0954933152	41.1017771791	41.1024436316	41.0877270377	41.0872617903	41.0912440709	41.0913251358	41.0905873555
Longitude			-73.5144289203	-73.5105813108	-73.5107940969	-73.5451697855	-73.5448312652	-73.5441538424	-73.5430921559	-73.5443996162
Recieving Stream			Noroton River	Noroton River	Noroton River	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined
Date of sample			6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015	6/15/2015
Magnitude of storm			0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in	0.65 in
Date of last storm			6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015	6/9/2015
PARAMETER	ml	units								
pH		s.u	7.61	7.71	7.54	7.13	6.80	6.77	6.22	6.64
Temperature		C	21.41	21.49	18.87	19.95	19.45	19.45	16.96	19.09
Dissolved Oxygen		mg/l	3.25	6.19	5.39	6.99	6.25	7.59	7.77	6.89
Specific Conductance		µmhos/cm	109	319	203	201	155	154	584	588
B.O.D./5 day		mg/L	7.2	< 4.0	< 4.0	4.2	4.0	5.3	< 4.0	< 4.0
Chloride		mg/L	10.5	57.3	33.6	33.0	32.3	41.0	230	197
C.O.D.		mg/L	55	18	12	29	23	29	14	12
Escherichia Coli		MPN/100 mls	17,330	4,610	<10	>24200	>24200	14,140	1,790	2,720
Enterococci Bacteria		MPN/100 mls	24,200	5,790	20	>24200	24,200	>24200	2,050	4,110
Fecal Coliforms		/100 mls	>2000	>2000	10	>2000	>2000	>2000	>2000	>2000
Hardness (CaCO3)		mg/L	17.7	80.3	39.4	2.8	28.6	27.2	105	90.1
MBAS		mg/L	0.25	0.07	0.08	0.10	0.1	0.11	< 0.05	< 0.05
Ammonia as Nitrogen		mg/L	0.26	0.10	0.15	0.25	0.24	0.25	< 0.05	< 0.05
Nitrite-N		mg/L	0.21	0.55	0.53	0.25	0.83	0.57	1.72	1.84
Nitrate-N		mg/L	0.19	0.54	0.52	0.23	0.80	0.54	1.72	1.83
Oil and Grease by EPA 1664		mg/L	1.6	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Total Coliforms		MPN/100 mls	>24200	>24200	50	>24200	>24200	>24200	>24200	>24200
Nitrogen Tot Kjeldahl		mg/L	1.49	0.74	0.53	0.85	0.79	0.91	0.57	0.65
O&G, Non-polar Material		mg/L	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Phosphorus, as P		mg/L	0.19	0.10	0.22	0.17	0.17	0.19	0.04	0.05
Total Suspended Solids		mg/L	22	15	< 5.0	5.0	8.5	6.0	< 5.0	< 5.0
Copper		mg/L	0.020	0.007	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005
Lead		mg/L	0.006	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Zinc		mg/L	0.065	0.014	0.02	< 0.002	0.007	0.01	0.004	0.004
* please include laboratory report forTotal Petroluem Hydrocarbons										

APPENDIX N

CITY STAFF TRAINING EVENTS
SIGN-IN SHEETS

FUSS&O'NEILL

Storm Water Pollution Prevention Plan
Employee Training
City of Stamford
Maintenance Garage, Highway Facility, Recycling Center
Date of Training: July 11, 2014

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	JOSE O FIGUEROA		D.P.W
2	Mike Scatamacchia		POLICE
3	ERIC ADAMS		HIGHWAYS
4	Timothy Hinton	Timothy Hinton	Highways
5	RON D'AMICO		PARKS Dept
6	Kevin Myrra		PARKS / FAC
7	Michael SCALLO		Fleet Manager
8	TYLER TILDEN		Stormwater
9	Jim Tarpey		Highway
10	JOAN MORGAN		Fire Dept. Garage.
11			
12			

Resources:
- Section 22a-430b of the Connecticut General Statutes.
- **Storm Water Pollution Prevention Plan** (SWPPP)– City of Stamford Maintenance Garage, Highway Facility, Recycling Center
- **F&O** Power Point Presentation by F&O

Training Presentation by: Deb Denfeld

Deb Denfeld, Deb Denfeld, Fuss & O'Neill, Inc
Printed Name — Signature

FUSS & O'NEILL

Universal Waste Management
Employee Training
City of Stamford
Maintenance Garage, Highway Facility, Recycling Center
Date of Training: July 11, 2014

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Michael Scalco	Michael Scalco	Fleet Manager
2	Kevin Murray	K Murray	Parks/Fac Manager
3	Ron D'Amico	Ronald D'Amico	Parks Dept
4	Tyler Theider	T Theider	Stormwater
5	Jim Torok	Jim Torok	Highway /
6	Joe Stocton	Joe Stocton	
7	Eric Adams	Eric Adams	Highways
8	Timothy Hinton	Timothy Hinton	Highways
9	John Morgan	John Morgan	Fire Dept Garage
10	Michael Scalco	Michael Scalco	Police
11			
12			

Resources:
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- Power Point Presentation by F&O

Training Presentation by: Deb Denfeld

Deb Denfeld (Printed Name), Deb Denfeld (Signature), Fuss & O'Neill, Inc

10/23/2014

Stamford MS4 & You Training

Name	Dept.	Email
Erin McKenna	LUB	EMckenna@stamfordct.gov
Cindy Barber	IT/GIS	cbarber@stamfordct.gov
Pamela Fausty	EPS	pfausty@ci.stamford.ct.us
Dave Killeen	LUB	DKilleen@StamfordCT.gov
RICK TALAMELLI	EPS	RTalamelli@ci.stamfordCT.US
Susan Kisken	Engineering	skisken@ci.stamford.ct.u
Dan Calabrese	Sh/Recycling	
Sean Northrop	Health	snorthrop@ci.Stamford.ct.us
Thomas Turk	Highways	tturk@stamfordct.gov
Trevor Roach	Fire	Troach@StamfordCT.gov
Doug Hoyt	Hwys	dhoyt@stamfordct.gov.
Lou CASUCCI	EB	LCASUCCI@STAMFORD.CT.GOV

FUSS & O'NEILL

Universal Waste Management, Spill Prevention Control and Countermeasures (SPCC) Plan, Stormwater Pollution Prevention (SWPP) Plan
Employee Training
City of Stamford: Highway Department, Police Department, Town Yard
Date of Training: June 16, 2015

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	David Plunkett		City of Stamford Heavy equipment operator
2	Rob Loffredo		City of Stamford H.E.O
3	Jose Cruz		
4	John W Corvelli		City of Stamford Foreman
5	Joseph Coplon	Joseph Coplon	City of Stamford
6	Chris Muhammad		City of Stamford
7	Ronald Vitti		City of Stamford
8	Rocco Caporale		city of stamford
9	Hanlet Castillo		city of stamford
10	Michael Kyek		City Hall work

Resources: Universal Waste
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- F&O PowerPoint Presentation

Resources: SWPPP
- Section 22a-430b of the Connecticut General Statutes.
- Storm Water Pollution Prevention Plan (SWPPP)– City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Resources: SPCC
- Regulations of 40 CFR Part 112
- Spill Prevention Control and Countermeasure (SPCC) Plan – City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Training Presentation by: Miko Kempton

Miko Kempton, Miko Kempton, Fuss & O'Neill, Inc
Printed Name — Signature

pg 1 of 2

FUSS & O'NEILL

Universal Waste Management, Spill Prevention Control and Countermeasures (SPCC) Plan, Stormwater Pollution Prevention (SWPP) Plan
Employee Training
City of Stamford: Highway Department, Police Department, Town Yard
Date of Training: June 16, 2015

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	ROBERT GARDNER	Robert Gardner	HWD
2	MKROD	Mkrod	HWD
3	A. TRIGILIO		HWD
4	John Moore		HWD
5	Todd M. Johnson	Todd M. Johnson Jr.	STAMFORD, CT. Highway dept.
6	JOHN PANDORE SR.	John Pandore	HWD
7	Dom Viggiano	Dom Viggiano	HWD
8	DENNIS SURMACZEWICZ	Dennis Surmaczewicz	Highways
9	RICH VALENTINE		H.W.D.
10			

Resources: Universal Waste
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- F&O PowerPoint Presentation

Resources: SWPPP
- Section 22a-430b of the Connecticut General Statutes.
- Storm Water Pollution Prevention Plan (SWPPP)– City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Resources: SPCC
- Regulations of 40 CFR Part 112
- Spill Prevention Control and Countermeasure (SPCC) Plan – City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Training Presentation by: Miko Kempton

Miko Kempton (Printed Name), Mk Kempton (Signature), Fuss & O'Neill, Inc

pg. 2 of 2

FUSS & O'NEILL

Universal Waste Management, Spill Prevention Control and Countermeasures (SPCC) Plan, Stormwater Pollution Prevention (SWPP) Plan
Employee Training
City of Stamford: Highway Department, Police Department, Town Yard
Date of Training: June 17, 2015

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	JOSE D Figueroa		D.P.W.
2	Joe Hoyt		D.P.W.
3	Aaron Turner		Highways
4	Spero Moschos		D.P.W.
5	Robert Frattaroli		Highways
6	Edward Whitehead		Traffic
7	Chris Kocot		Traffic
8	Santo DiDonato		Traffic
9	Travis Hoyt		DPW
10			

Resources: Universal Waste
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- F&O PowerPoint Presentation

Resources: SWPPP
- Section 22a-430b of the Connecticut General Statutes.
- Storm Water Pollution Prevention Plan (SWPPP)– City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Resources: SPCC
- Regulations of 40 CFR Part 112
- Spill Prevention Control and Countermeasure (SPCC) Plan – City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Training Presentation by: Miko Kempton

Miko Kempton, _____, Fuss & O'Neill, Inc
Printed Name Signature

Pg 1 of 3

FUSS & O'NEILL

Universal Waste Management, Spill Prevention Control and Countermeasures (SPCC) Plan, Stormwater Pollution Prevention (SWPP) Plan
Employee Training
City of Stamford: Highway Department, Police Department, Town Yard
Date of Training: June 17, 2015

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	ERIC ADAMS		HIGHWAYS
2	Wendell Christian		Highway
3	Timothy Hinton		Highway
4	Michael Scaturchio		Highway
5	RALPH SOCCI		TRAFFIC
6	ERAZIO CIRELLI		TRAFFIC
7	James Taylor		Highway
8	Michael Scalco		Vehicle Maintenance
9	P. Mardi		Highway
10			

Resources: Universal Waste
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- F&O PowerPoint Presentation

Resources: SWPPP
- Section 22a-430b of the Connecticut General Statutes.
- Storm Water Pollution Prevention Plan (SWPPP)– City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Resources: SPCC
- Regulations of 40 CFR Part 112
- Spill Prevention Control and Countermeasure (SPCC) Plan – City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Training Presentation by: Miko Kempton

Miko Kempton, _____, Fuss & O'Neill, Inc
Printed Name Signature

Pg 2 of 3

FUSS & O'NEILL

Universal Waste Management, Spill Prevention Control and Countermeasures (SPCC) Plan, Stormwater Pollution Prevention (SWPP) Plan
Employee Training
City of Stamford: Highway Department, Police Department, Town Yard
Date of Training: June 17, 2015

Attendees Sign-In:

	Name Printed	Name Signed	Company / Work Function
1	Francis DeJesus		
2	Christopher Baldwin		Traffic Maint.
3	Keith Rich		Traffic Mnt.
4			
5			
6			
7			
8			
9			
10			

Resources: Universal Waste
- Section 22a-430b of the Connecticut General Statutes
- Section 22a-449(c)-113 of the Regulations of Connecticut State Agencies (RCSA)
- F&O PowerPoint Presentation

Resources: SWPPP
- Section 22a-430b of the Connecticut General Statutes.
- Storm Water Pollution Prevention Plan (SWPPP)– City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Resources: SPCC
- Regulations of 40 CFR Part 112
- Spill Prevention Control and Countermeasure (SPCC) Plan – City of Stamford Highway Department, Police Department, Transfer Station
- F&O PowerPoint Presentation

Training Presentation by: Miko Kempton

Miko Kempton, _____, Fuss & O'Neill, Inc
Printed Name Signature

pg 3 of 3