

## Appendix A

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Modified NPDES Permit No. CT0030279



**NPDES PERMIT MODIFICATION**

issued to

City of Stamford  
888 Washington Blvd.  
Stamford, CT 06901

**Location Address:**  
Municipal Storm Sewer System

**Permit ID:** CT0030279

**Receiving Stream:** Long Island Sound, Cove Harbor,  
Westcott Cove, Stamford Harbor, Holly Pond, Rippowam River,  
Noroton River and Mianus River and their tributaries

**Permit Expires:** June 3, 2018

**SECTION 1: GENERAL PROVISIONS**

- (A) This permit is issued in accordance with section 22a-430 of Chapter 446k, Connecticut General Statutes ("CGS"), and Regulations of Connecticut State Agencies ("RCSA") adopted thereunder, as amended, and section 402(b) of the Clean Water Act, as amended, 33 USC 1251, et. seq., and pursuant to an approval dated September 26, 1973, by the Administrator of the United States Environmental Protection Agency for the State of Connecticut to administer an N.P.D.E.S. permit program.
- (B) **The City of Stamford**, ("Permittee"), shall comply with all conditions of this permit including the following sections of the RCSA which have been adopted pursuant to section 22a-430 of the CGS and are hereby incorporated into this permit. Your attention is especially drawn to the notification requirements of subsection (i)(2), (i)(3), (j)(1), (j)(6), (j)(8), (j)(9)(C), (j)(10)(C), (j)(11)(C), (D), (E), and (F), (k)(3) and (4) and (l)(2) of section 22a-430-3.

**Section 22a-430-3 General Conditions**

- (a) Definitions
- (b) General
- (c) Inspection and Entry
- (d) Effect of a Permit
- (e) Duty

**CERTIFIED TO BE A TRUE COPY**  
Connecticut Department of  
Environmental Protection

NAME: Luis Muna  
TITLE: Improving Tech

- (f) Proper Operation and Maintenance
- (g) Sludge Disposal
- (h) Duty to Mitigate
- (i) Facility Modifications; Notification
- (j) Monitoring, Records and Reporting Requirements
- (k) Bypass
- (l) Conditions Applicable to POTWs
- (m) Effluent Limitation Violations (Upsets)
- (n) Enforcement
- (o) Resource Conservation
- (p) Spill Prevention and Control
- (q) Instrumentation, Alarms, Flow Recorders
- (r) Equalization

Section 22a-430-4 Procedures and Criteria

- (a) Duty to Apply
- (b) Duty to Reapply
- (c) Application Requirements
- (d) Preliminary Review
- (e) Tentative Determination
- (f) Draft Permits, Fact Sheets
- (g) Public Notice, Notice of Hearing
- (h) Public Comments
- (i) Final Determination
- (j) Public Hearings
- (k) Submission of Plans and Specifications. Approval.
- (l) Establishing Effluent Limitations and Conditions
- (m) Case by Case Determinations
- (n) Permit issuance or renewal
- (o) Permit Transfer
- (p) Permit revocation, denial or modification
- (q) Variances
- (r) Secondary Treatment Requirements
- (s) Treatment Requirements for Metals and Cyanide
- (t) Discharges to POTWs - Prohibitions

(C) Violations of any of the terms, conditions, or limitations contained in this permit may subject the Permittee to enforcement action including, but not limited to, seeking penalties, injunctions and/or forfeitures pursuant to applicable sections of the CGS and RCSA.

(D) Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense under section 22a-438 or 22a-131a of the CGS or in accordance with section

22a-6, under section 53a-157b of the CGS.

- (E) The authorization to discharge under this permit may not be transferred without prior written approval of the Commissioner of Energy and Environmental Protection ("commissioner"). To request such approval, the Permittee and proposed transferee shall register such proposed transfer with the commissioner, at least 30 days prior to the transferee becoming legally responsible for creating or maintaining any discharge which is the subject of the permit transfer. Failure, by the transferee, to obtain the commissioner's approval prior to commencing such discharge(s) may subject the transferee to enforcement action for discharging without a permit pursuant to applicable sections of the CGS and RCSA.
- (F) No provision of this permit and no action or inaction by the commissioner shall be construed to constitute an assurance by the commissioner that the actions taken by the Permittee pursuant to this permit will result in compliance or prevent or abate pollution.
- (G) Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- (H) An annual fee shall be paid for each year this permit is in effect as set forth in section 22a-430-7 of the Regulations of Connecticut State Agencies.
- (I) This permitted discharge is consistent with the applicable goals and policies of the Connecticut Coastal Management Act (section 22a-92 of the Connecticut General Statutes).
- (J) Any activity prescribed by this permit, if it is located within an aquifer protection area as mapped under section 22a-354b of the Connecticut General Statutes, must comply with regulations adopted pursuant to section 22a-354i of the Connecticut General Statutes.

## SECTION 2: DEFINITIONS

- (A) The definitions of the terms used in this permit shall be the same as the definitions contained in section 22a-423 of the CGS and section 22a-430-3(a) and 22a-430-6 of the RCSA.
- (B) In addition to the above, the following definitions shall apply to this permit:

*"Alignment"* in the context of sanitary and storm sewer systems means the system of pipes and structures within the catchment area of the given system.

*"Annual"* in the context of a sampling frequency means that the sample must be collected at least once during each calendar year.

*"Coastal area"* shall be the same as the definition contained in section 22a-94 of the Connecticut General Statutes.

“*Coastal waters*” shall be the same as the definition contained in section 22a-93(5) of the Connecticut General Statutes.

“*Commercial activity*” means the discharge from any point source conveying stormwater runoff from any activity or facility under SIC codes 50-59, 60-69 or 70-79.

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

“*Construction activity*” means activity including but not limited to clearing and grubbing, grading, excavation and dewatering.

“*Department*” means the Department of Energy and Environmental Protection.

“*Directly Connected Impervious Area*” or “*DCIA*” means that part of the total impervious area that is hydraulically connected to the Permittee’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.

“*DMR*” means Discharge Monitoring Report.

“*Fresh-tidal wetland*” means a tidal wetland with an average salinity level of less than 0.5 parts per thousand.

“*Guidelines*” means the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, established pursuant to section 22a-328 of the Connecticut General Statutes.

“*High Quality Waters*” means surface waters where the water quality is better than necessary to meet the criteria established in the Connecticut Water Quality Standards Manual, as amended, for the applicable classification or which may sustain a sensitive use designated for a higher classification. This definition may be superseded by future amendments to the Water Quality Standards Manual.

“*Illicit Discharge*” means any discharge to the Permittee’s MS4 that is not composed entirely of stormwater, with the exception of discharges authorized by another N.P.D.E.S. permit, or discharges described in the “Non-Stormwater Discharges” section (Section 4(A)(3)) of this 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.

*“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 Department, as amended.

*“Medium MS4”*, as it relates to the City of Stamford, means all municipal separate storm sewers that are located in an incorporated place (city) with a population greater than 100,000 and less than 250,000 as determined by the latest Decennial Census by the Bureau of Census.

*“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.

*“LC50”* means the concentration of a substance, mixture of substances, or discharge which causes mortality to fifty percent of the test organisms in an acute toxicity test.

*“NA”* as a Monitoring Table abbreviation means “not applicable”.

*“NR”* as a Monitoring Table abbreviation means “not required”.

*“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.

*“Quarterly”*, in the context of a sampling frequency, means that a representative sample of the discharge shall be collected during each of the following periods: January - March, inclusive; April - June, inclusive; July - September, inclusive, and October - December, inclusive.

*“Retain”* means to hold runoff on-site with no subsequent point source release to surface waters from a storm event defined in this permit or as approved by the commissioner.

*“Runoff reduction practices”* means those post-construction stormwater management practices used to reduce post-development runoff volume delivered to the receiving water, as defined by retaining the runoff from a storm up to the first half inch or one inch of rainfall in accordance

with Section 6(A)(3)(a)(iii) of this permit. Runoff reduction is quantified as the total annual post-development runoff volume reduced through canopy interception, soil amendments, evaporation, rainfall harvesting, engineered infiltration, extended filtration or evapotranspiration.

“*SIC Code*” means Standard Industrial Classification (SIC) codes as identified by “Standard Industrial Classification Manual, Executive Office of the President, Office of Management and Budget 1987”.

“*Stamford MS4*” means the medium MS4 owned or operated by the City of Stamford.

“*Stamford MS4 Discharge(s)*” means the point source discharge(s) of stormwater from the MS4 owned or operated by the City of Stamford.

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

“*Semi-Annual*” in the context of a sampling frequency, means that a representative sample of the discharge shall be collected during each of the following periods: January - June, inclusive, and July - December, inclusive.

“*Stormwater Quality Manual*” means the Department’s 2004 Connecticut Stormwater Quality Manual published, as may be amended.

“*Tidal wetland*” means a wetland as that term is defined in section 22a-29(2) of the Connecticut General Statutes.

“*Total Maximum Daily Load*” or “*TMDL*” means the maximum capacity of a surface water to assimilate a pollutant as established by the commissioner, including pollutants contributed by point and non-point sources and a margin of safety.

“*ug/l*” means micrograms per liter.

“*Water Quality Standards or Classifications*” means those water quality standards or classifications contained in the Connecticut Water Quality Standards published by the Department, as may be amended.

“*Water Quality Volume*” or “*WQV*” means the volume of runoff generated by one inch of rainfall on a site as defined in the 2004 Connecticut Stormwater Quality Manual, as amended.

### SECTION 3: COMMISSIONER'S DECISION

- (A) The commissioner has issued a final determination on this permit modification and found that the discharges will not cause pollution of any of the waters of the state. The commissioner's decision is based on **Application No. 20161056** for permit modification received on January 4, 2016 and the administrative record established in the processing of that application.
- (B) (1) From the issuance of this permit modification through and including August 31, 2017, the commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030279, issued by the commissioner to the Permittee on June 4, 2013, the previous application submitted by the Permittee on February 23, 2010, and all modifications and approvals issued by the commissioner or the commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. CT0030279, issued by the commissioner to the Permittee on June 4, 2013.
- (2) From September 1, 2017 until this permit expires or is modified or revoked, the commissioner hereby authorizes the Permittee to discharge in accordance with the terms and conditions of Permit No. CT0030279, issued by the commissioner to the Permittee on August 4, 2017, Application No. 20161056 received by the Department on January 4, 2016, and all modifications and approvals issued by the commissioner or the commissioner's authorized agent for the discharge and/or activities authorized by, or associated with, Permit No. CT0030279, issued by the commissioner to the Permittee on August 4, 2017.
- (C) The commissioner reserves the right to make appropriate revisions to the permit in order to establish any appropriate effluent limitations, schedules of compliance, or other provisions which may be authorized under the Federal Clean Water Act or the CGS or regulations adopted thereunder, as amended. The permit as modified or renewed under this paragraph may also contain any other requirements of the Federal Clean Water Act or CGS or regulations adopted thereunder which are then applicable.

### SECTION 4: DISCHARGES AUTHORIZED UNDER THIS PERMIT

- (A) This permit authorizes:
- (1) **Existing** stormwater discharges to the surface waters of the state from all existing outfalls from areas, within the corporate boundary of the City of Stamford and served by, or otherwise contributing to, discharges from the existing MS4 owned and operated by the City of Stamford.
- (2) **New** storm water discharges to the surface waters of the state, subject to the "New or Increased Discharges to High Quality Waters" and "New and Improved discharges to Impaired Waters" sections (subsections 4(A)(4) and 4(A)(5) below) of this permit.



(3) The following non-stormwater discharges provided they do not contribute to a violation of water quality standards and are not significant contributors of pollutants to the MS4:

- landscape irrigation, provided 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;
- lawn watering runoff, provided all pesticides, herbicides and fertilizers have been applied in accordance with approved labeling; 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.
- Discharges or flows from firefighting activities.

(4) New or Increased Discharges to High Quality Waters

On or before thirty (30) days prior to the commencement of a new or increased discharge to High Quality Waters (as defined in Section 2(B)) from its MS4, the Permittee must provide to the commissioner a description of the discharge and information demonstrating that the discharge will satisfy the Connecticut Anti-Degradation Implementation Policy in the Water Quality Standards, as amended. Such discharge will become authorized thirty (30) days after the Permittee's notification to the commissioner unless the commissioner notifies the Permittee that it has failed to demonstrate satisfaction with the retention standards of the anti-degradation provisions. Before commencing any new or increased discharge, the Permittee shall identify in its Stormwater Management Plan ("SMP"), the best management practices ("BMPs") it will implement to ensure compliance with antidegradation provisions and the terms of this Permit.

(5) New or Increased Discharges to Impaired Waters

Any new or increased discharge to an impaired water will become authorized only if the Permittee demonstrates to the commissioner, before commencement of the discharge, that through the implementation of BMPs or other measures, the discharge is not expected to cause or contribute to an exceedance of a water quality standard for the pollutant(s) of concern. This provision does not apply to routine maintenance and repair of the storm sewer system provided such work does not significantly increase the discharge from a given storm sewer catchment area. The Permittee shall provide data and other technical information to the commissioner sufficient to demonstrate one or more of the following:

- (a) the indicator pollutant(s) identified as causing the impairment will not be present in the discharge; or
- (b) the discharge is not expected to cause or contribute to an exceedance of a water quality standard. To do this, the Permittee must provide data and other technical information to the commissioner sufficient to demonstrate:
  - (i) For discharges to waters without an established TMDL, that the discharge of the pollutant identified as an indicator of the impairment will meet in-stream water quality criteria at the point of discharge to the waterbody; or
  - (ii) For discharges to waters with an established TMDL, that there are sufficient remaining Waste Load Allocations in the TMDL to allow the discharge and that existing dischargers to the waterbody are subject to compliance schedules designed to bring the waterbody into attainment with water quality standards.

## **SECTION 5: GENERAL LIMITATIONS**

- (A) The stormwater discharges shall not contain, or cause in the receiving stream, a visible oil sheen, floating solids, visible discoloration or foaming. Excluded from this are naturally occurring substances such as leaves and twigs provided no person has placed such substances in or near the discharge.
- (B) The stormwater discharges shall not cause acute or chronic toxicity in its receiving water bodies.
- (C) A new Stamford MS4 discharge to a tidal wetland (that is not fresh-tidal) where such discharge is within 500 feet of the tidal wetland shall discharge through a system designed to retain the volume of stormwater runoff generated by 1 inch of rainfall from the MS4 within the discharge's drainage area. If there are site constraints that would prevent retention of this volume on-site (e.g., soil contamination, elevated ground-water, potential groundwater drinking supply area, etc.), documentation must be submitted, for the commissioner's review and written approval, which explains the site limitations and offers an alternative retention volume and/or additional stormwater treatment. In such cases, the portion of 1 inch that cannot be retained

must be provided with additional stormwater treatment so as to protect water quality. Any such treatment shall be designed, installed and maintained in accordance with the Stormwater Quality Manual.

- (D) A Stamford MS4 discharge below the high tide line into coastal, tidal, or navigable waters for which a permit is required under the Structures and Dredging Act in accordance with section 22a-361(a) of the Connecticut General Statutes or into tidal wetlands for which a permit is required under the Tidal Wetlands Act in accordance with section 22a-32 of the Connecticut General Statutes, shall obtain such permit(s) from the commissioner.

## **SECTION 6: CONDITIONS OF THIS PERMIT**

### **(A) CONTROL MEASURES**

The Permittee must implement the following Control Measures to reduce the discharge of pollutants from Stamford's MS4 to the maximum extent practicable using management practices, control techniques and system, design and engineering methods, and such other provisions which are appropriate. These controls may be imposed on a system-wide basis, a watershed basis, a jurisdiction basis, or on individual outfalls.

#### **(1) Public Education and Involvement**

The Permittee shall continue to implement a public education and involvement program, assess the overall success of the program, and document both direct and indirect measurements of program effectiveness. The program shall include elements that:

- (a) increase the public awareness about stormwater pollution, its causes and effects, and actions that citizens, and commercial, industrial, and institutional entities can take to reduce the impact of stormwater pollution on water quality;
- (b) promote, publicize and facilitate the various elements of its Stormwater Management Plan ("SMP") through varied public education and involvement methods and make information available for non-English speaking residents;
- (c) disseminate information to residents regarding the proper handling and disposal of used motor vehicle fluids, household hazardous waste, electronic waste, food preparation waste, grass clippings, car wash waters, proper use of fertilizers, pesticides, and herbicides and educational material emphasizing nitrogen and phosphorus control as it relates to lawn care to residents;
- (d) educate dog owners about the proper disposal of pet waste and by providing written information at the time of dog license renewal. The Permittee shall install signage, pet waste baggies, and disposal receptacles in recreational areas where dog walking is

allowed. In order to measure the effectiveness of education measures, the Permittee shall document in its annual report, information regarding the enforcement of the dog waste management ordinance (Section 11-7 of City Charter) including the number of violations and fines levied;

- (e) educate owners and operators of commercial, industrial, and institutional facilities as to their responsibility to control pollutants in stormwater discharges from their property to the Permittee's MS4; and
- (f) provide opportunities for the public to participate in the review, modification, and implementation of its SMP, and sustain partnerships with environmental groups and civic organizations interested in water quality related issues. The Permittee shall host an annual public informational meeting within sixty (60) days of the date of anniversary of this permit to discuss and provide information in each annual report required under Section 8(A) of this permit. The meeting notice shall comply with state public notice requirements, pursuant to CT Statute 7-3, and provide a forum for the education and involvement of interested public.

(2) Pollution Prevention (Source Controls)

Upon issuance of this permit, unless otherwise noted, the Permittee shall continue to implement, review and enhance its current pollution prevention practices and develop new source control procedures to include the elements listed below:

(a) Legal Authority

The Permittee shall, within eighteen months from the start of the Permittee's first fiscal year that begins after the effective date of this permit, ensure legal authority to:

- (i) control the contribution of pollutants to the Stamford MS4 by permittees of the General Permit for the Discharge of Stormwater Associated with Industrial Activity and the General Permit for the Discharge of Stormwater Associated with Commercial Activity ("general permits"), issued pursuant to sections 22a-430b of the Connecticut General Statutes, by ensuring the City's stormwater rules and regulations contain requirements consistent with those of the general permits;
- (ii) control the contribution of pollutants to the Stamford MS4 by commercial, industrial, municipal, institutional or other facilities, not otherwise authorized by permit issued pursuant to Sections 22a-430 or 22a-430b of the Connecticut General Statutes;
- (iii) regulate the discharge of pollutants from any site that may affect water quality to the Stamford MS4.

- (b) The Permittee shall provide and actively promote the use of used motor oil collection capabilities at the city-owned recycling facility(ies) to facilitate the proper management, disposal, reuse and recycling of used motor vehicle fluids.
- (c) The Permittee shall continue to promote and offer at least annually its municipal Household Hazardous Waste (HHW) Collection and Electronic Waste Programs for the reuse, recycling, and proper disposal of such waste. The Permittee shall establish as a goal, increasing the frequency of the collection days hosted. The Permittee shall report progress made towards reaching the goals of the program in each annual report.
- (d) Spills and Leaks

The Permittee shall develop and implement a Spill Prevention and Response Plan to prevent, contain, and respond to spills entering its MS4. The Permittee shall maintain, for a period of three years past the term of this permit, a list of spills and leaks of five gallons or more of petroleum products, or of toxic or hazardous substances which could affect stormwater, as listed in section 22a-430-4 (Appendix B Tables II, III and V, and Appendix D) of the Regulations of Connecticut State Agencies, and 40 CFR 116.4, that have been reported to the City or occurred as a result of an activity conducted by a city employee.

- (e) The Permittee shall limit the application of pesticides, herbicides and fertilizers (“PHFs”) in city owned or operated areas. The Permittee shall develop and implement standard operating practices for the handling, storage, application, and disposal of PHFs in compliance with applicable state and federal laws, and maintain consistency with model Integrated Pest Management Plans (“IPMs”) developed by the Department. The Permittee shall establish reduction goals in its SMP, including consideration of alternatives, for PHFs being used at city owned or operated areas. With respect to city-owned or -operated golf courses (such as Sterling Farms Golf Course and E. G. Brennan Golf Course), the Permittee shall implement practices that achieve a 10 percent reduction in total nitrogen by the expiration date of this permit. Such reduction shall be determined by the average annual usage, by weight, of the three years preceding this permit. Additionally, the MS4 shall identify BMPs to maximize reduction in total nitrogen and phosphorus.
- (f) The Permittee must enclose or cover by a rigid or flexible roof, or other structural means all storage piles of de-icing materials (including pure salt, salt alternatives or either of these mixed with other materials) at city owned or operated sites, which are not otherwise regulated by the General Permit for the Discharge of Stormwater Associated with Industrial Activity. Such structure shall not allow for the migration or release of material outside of the structure through its sidewalls. In areas with a groundwater classification of GA or GAA, an impervious liner shall be utilized under

any de-icing material pile to prevent infiltration to groundwater. As a temporary measure (not to exceed two years from the effective date of this permit), a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile) until a structure can be provided. For temporary storage piles of de-icing materials in place for less than 180 days per year, a waterproof cover may be used to prevent exposure to precipitation (except for exposure necessary to add or remove materials from the pile).

In addition, no new road salt or de-icing materials storage facilities shall be located within a 100-year floodplain as defined and mapped for each municipality under 44 CFR 59 et seq. or within 250 feet of a well utilized for potable drinking water supply or within a Level A aquifer protection area as defined by mapping pursuant to section 22a-354c of the Connecticut General Statutes.

- (g) If the Permittee determines that a stormwater discharge, from commercial, industrial, municipal, institutional or other facilities, not otherwise authorized by a permit issued pursuant to Sections 22a-430 or 22a-430b of the Connecticut General Statutes, is contributing a substantial pollutant loading to the MS4, it shall develop, implement, and enforce a program to control pollutants. The Permittee shall report progress made towards reaching the goals of the program in each annual report. The program shall include:
  - (i) an inventory, mapping, and prioritization of all facilities determined by the Permittee to be contributing a substantial pollutant loading to its MS4 through inspections, monitoring, or other methods conducted by the Permittee, facility operator, or others; and
  - (ii) an education program that informs these facility operators of their obligation to comply with the City's stormwater rules and regulations, encourages pollution prevention, and promotes facility-specific stormwater management practices, including appropriate operation and maintenance practices.

(3) Land Disturbance and Development

- (a) Upon issuance of this permit, unless otherwise noted, the Permittee shall implement and enforce a program to control stormwater discharges to its MS4 associated with land disturbance or development (including re-development) activities from areas with one half acre or more of soil disturbance, whether considered individually or collectively as part of a larger common plan. Such program shall include the following elements:
  - (i) Legal Authority

The Permittee shall, on or before December 3, 2017, ensure legal authority to:

- establish an ordinance, bylaw, regulation, or other appropriate legal authority that requires developers and construction site operators to maintain consistency with the 2002 Guidelines for Soil Erosion and Sedimentation Control, as amended, the 2004 Connecticut Stormwater Quality Manual, as amended, and all stormwater discharge permits issued by the DEEP within the City of Stamford pursuant to CGS 22a-430 and 22a-430b. Such ordinance, bylaw, regulation, or other appropriate legal authority may include the implementation of measures in addition to the Guidelines;
- identify existing municipal zoning, site planning, or street design regulations that address minimal dimensional criteria for the creation of roadways, parking lots, and other impervious cover that may represent barriers to implementing LID practices that involve minimization of impervious cover;
- carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with City regulations related to the management of the MS4;
- establish an ordinance, bylaw, regulation, or other appropriate legal authority to ensure that a developer's or construction site operator's proposed use of low impact development ("LID") practices are allowable by right or exception (e.g., special permit or variance) under its regulations;
- revise regulations necessary to eliminate or reduce potential barriers, or otherwise provide in its Annual Report(s) required by Section 8, a justification for why this schedule cannot be met and a revised schedule for implementation;
- optimize the performance and pollutant removal efficiency of privately-owned retention or detention ponds that discharge to or receive discharge from its MS4, by ensuring the performance of adequate inspection and maintenance activities;
- control through interagency or inter-jurisdictional agreements, the contribution of pollutants between the Permittee's MS4 and MS4s owned or operated by others.

(ii) Interdepartmental Coordination

A plan to coordinate all municipal departments and boards with jurisdiction over

the review, permitting, or approval of land disturbance and development projects within the City of Stamford.

(iii) Low Impact Development (“LID”) Measures

The Permittee shall, on or before December 3, 2017, incorporate the use of runoff reduction and low impact development (“LID”) practices into their land use regulations to meet a goal of maintaining post-development runoff conditions similar to pre-development runoff conditions. These regulations shall require the following, at a minimum, of applicants for land development and redevelopment:

- For sites that are currently developed with an effective impervious cover of forty percent or more and for which the applicant is proposing redevelopment, the applicant shall design the site in such a manner as to retain on-site half the water quality volume for the site. In cases where the applicant is not able to retain this entire amount, the applicant shall design the redevelopment to retain runoff volume to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice. In such cases, the applicant shall provide additional stormwater treatment for sediment, floatables and nutrients to the maximum extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice for the volume above that which can be retained up to the water quality volume. In cases where the runoff retention requirement cannot be met, the applicant shall submit, for the Permittee’s review, a report detailing factors limiting the capability of achieving this goal. The report shall include: the measures taken to maximize runoff reduction practices on the site; the reasons why those practices constitute the maximum extent achievable; the alternative retention volume; and a description of the measures used to provide additional stormwater treatment above the alternate volume up to the water quality volume. In the case of linear redevelopment projects (e.g. roadway reconstruction or widening) for the developed portion of the right of way: (1) for projects that may be unable to comply with the full retention standard, the alternate retention and treatment provisions may also be applied as specified above, or (2) for projects that will not increase the effective impervious cover within a given watershed, the Permittee shall implement the additional stormwater treatment measures referenced above, but will not be required to retain half of the water quality volume.
- For all new development and for redevelopment of sites with a currently developed effective impervious cover of less than forty percent, the applicant shall design the site to retain the water quality volume for the site.



If there are site constraints that would prevent retention of this volume on-site (e.g., brownfields, capped landfills, bedrock, elevated groundwater, etc.), documentation must be submitted, for the City's review and written approval, which: explains the site limitations; provides a description of the runoff reduction practices implemented; provides an explanation of why this constitutes the maximum extent achievable; offers an alternative retention volume; and provides a description of the measures used to provide additional stormwater treatment for sediment, floatables and nutrients above the alternate volume up to the water quality volume. Any such treatment shall be designed, installed and maintained in accordance with the Stormwater Quality Manual. In the case of linear projects that do not involve impervious surfaces (e.g. electrical transmission rights-of-way or natural gas pipelines), retention of the water quality volume is not required as long as the post-development runoff characteristics do not differ significantly from pre-development conditions.

- limit turf areas to areas of land disturbance,
- limit land disturbance to areas necessary to construct buildings, utilities, stormwater management measures, parking, access ways, reasonable lawn and landscape areas and contouring necessary to prevent future site erosion,
- maintain consistency with the Connecticut Stormwater Quality Manual (as amended), or if inconsistent, provide an explanation of why consistency is not feasible or practicable and information that the proposed plan of development is adequately protective.

(iv) Stormwater Management Implementation

On or before December 3, 2017, the Permittee shall implement, upgrade (if necessary) and enforce a program that shall address construction and post-construction stormwater discharges from land disturbing activities (construction phase) and after site stabilization has been achieved (post-construction or operational phase). At a minimum, the City's land use regulations shall be consistent with the Connecticut Guidelines for Soil Erosion and Sedimentation Control (as amended) for construction activities and the Connecticut Stormwater Quality Manual (as amended) for post-construction stormwater management.

(v) Site Review and Inspection

- 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; and

- Site inspection and enforcement to assess the adequacy of the installation, maintenance, operation, and repair of construction and post construction control measures.

(vi) Public Involvement

A procedure for receipt and consideration of information submitted by the public concerning proposed and ongoing land disturbance and development activities.

(vii) State Permit Notification

A procedure for notifying developers of their potential obligation to obtain authorization under the DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities ("construction general permit") if their development or redevelopment project disturbs one or more acres of land, either individually or collectively, as part of a larger common plan, and results in a point source discharge to the surface waters of the state directly or through the Permittee's MS4. The notification shall include a provision informing the project applicant of their obligation to provide a copy of the Storm Water Pollution Control Plan to the Permittee upon request pursuant to the construction general permit.

(viii) Impervious Cover

Within four (4) years of the date of issuance of this permit, the Permittee shall complete, and include in its SMP, an estimate of the DCIA that contributes stormwater to each of its MS4 outfalls. In its initial annual report, the Permittee shall describe the methodology and assumptions used to estimate the DCIA. Each annual report shall document the progress of this task until its completion in the fourth year. The Permittee shall revise its DCIA estimate as development, redevelopment, or retrofit projects effectively add or remove DCIA to its MS4.

(4) Illicit Discharges

The Permittee shall continue to implement their illicit discharge detection and elimination program and update such program in accordance with the Illicit Discharge Detection and Elimination (IDDE) Program section (Section 6(D)).

(5) Infrastructure Operations and Maintenance

(a) Employee Training

The Permittee shall continue a formal employee training program to increase awareness of water quality related issues in management of its MS4. In addition to providing key staff with topical training regarding standard operating procedures and other activities necessary to comply with the provisions of this permit, the training program shall include establishing an awareness of the general goals and objectives of the SMP; identification and reporting of illicit discharges, and improper disposal; and spill response protocols and respective responsibilities of involved personnel.

(b) Infrastructure Repair and Rehabilitation

The Permittee shall repair and rehabilitate its MS4 infrastructure in a timely manner in order to reduce or eliminate the discharge of pollutants from its MS4 to receiving waters. Priority for repair and rehabilitation shall be based on existing information on outfalls discharging pollutants, impaired waters, inspection observations or observations made during outfall mapping pursuant to Section 6(D)(4)(c) of this permit. This shall include refinement of the Permittee's standard operating procedures and good housekeeping practices for management of its MS4.

(c) Roadway Maintenance

City-owned public streets, roads and highway rights-of-way shall be maintained by the Permittee in such a manner as to minimize the discharge of pollutants to its MS4.

(d) Sweeping

(i) The Permittee shall implement a street sweeping program to remove sand, sediment, and debris from all permittee-owned or maintained streets and parking lots. All Permittee-owned streets and parking lots shall be inspected, swept and/or cleaned with a minimum frequency of once per year in the spring following the cessation of winter maintenance activities (i.e. sanding, deicing, etc.). As a goal, the Permittee shall compress its spring residential sweeping schedule to maximize the quantity of material collected at the end of the winter season, but in no case later than June 30. In the case of special events sponsored in whole or in part by the Permittee (concerts, parades, etc.), the gathering area shall be swept prior to the event and again upon conclusion of the event and in no case later than 24 hours after the end of the event. The event gathering area shall be defined as the path of parade route, boundaries of the concert event area within Permittee-owned parks and adjacent roadways, and other geographic boundaries (streets, etc.) as deemed reasonable and appropriate by the Permittee. The street sweeping program shall also include regular roadway surface inspections by the Permittee and cleaning and/or sweeping of targeted areas as determined by the Permittee to have increased pollutant potential based on the presence of active construction activity or other potential pollutant sources. The permittee shall

identify such potential pollutant sources based upon surface inspections, catch basin cleaning or inspection results, land use, winter road deicing and/or sand application, impaired or TMDL waters or other relevant factors as determined by the permittee. Additionally, the permittee shall conduct a visual assessment in the fall, each year until the conclusion of the permit term, to assess and identify areas to receive targeted sweeping. If wet dust suppression is conducted, the use of water should be minimized such that a discharge of excess water to surface waters and/ or the storm sewer system does not occur.

- (ii) The Permittee shall sweep all Permittee-owned or -operated parking lots at least quarterly.
- (iii) The Permittee shall sweep sidewalks in the central business district at least weekly.

(e) Leaf Collection

The Permittee shall conduct a city wide leaf pickup program annually to be completed by December 15.

(f) Snow Removal

- (i) The Permittee shall implement and refine its standard operating practices regarding its snow and ice control operations to minimize the discharge of pollutants. The Permittee shall establish goals for the optimization of chemical application rates through the use of automated application equipment (e.g. zero-velocity spreaders), anti-icing and pre-wetting techniques, implementation of pavement management systems, and alternate chemicals. The Permittee shall maintain records of the application of anti-icing and/ or de-icing chemicals to document the reduction of chemicals to meet established goals.
- (ii) The Permittee shall maintain consistency with the DEEP's Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots, as amended, for the stockpiling or disposal of post-plowing snow.

(g) Catch Basin Cleaning

The Permittee shall conduct routine cleaning of all catch basins. The Permittee shall track catch basin inspection observations. Utilizing information compiled through its inventory of catch basins, operational staff and public complaints, the Permittee shall optimize routine cleaning frequencies for particular structures or catchment areas as follows to maintain acceptable sediment removal efficiencies:

- (i) On or before December 3, 2017, those catch basins serving catchment areas tributary to a receiving water identified as impaired shall be inspected and cleaned, if necessary, in order to establish a routine frequency cleaning schedule to ensure that no catch basin sump will be more than fifty percent (50%) full. Once this frequency has been determined, it shall be included in the SMP and noted in the Permittee's Annual Reports.
- (ii) For all other catch basins, during the first four years of this permit, the Permittee shall inspect and, if necessary, clean these catch basins at least twice to establish a cleaning frequency determined such that no catch basin sump is found to be more than fifty percent (50%) full during routine cleaning events. If any of these catch basins are found to be more than fifty percent (50%) full, such basins shall be cleaned and reinspected within a year to determine the appropriate cleaning frequency. Once this frequency has been determined, it shall be included in the SMP and noted in the Permittee's Annual Reports.
- (iii) Following the establishment of appropriate cleaning frequencies pursuant to subparagraphs (i) and (ii) above, and notwithstanding extenuating circumstances (such as excessive erosion from an active construction site), if a catch basin sump is found to be more than fifty percent (50%) full during each of two consecutive routine cleaning events, the Permittee shall investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practical, abate contributing sources through appropriate measures. Appropriate measures may include stabilization practices, drainage modifications, and increased frequencies of catch basin cleaning and street sweeping, and structural controls suitable for controlling the excessive loading. The Permittee shall describe in its annual report actions taken or its plans to abate areas of persistent sedimentation (including a timeframe for the implementation of such actions), including stabilization practices, structural improvements or operational modifications. After implementation of these measures, if subsequent inspections continue to find the sump more than fifty percent (50%) full, cleaning frequency shall be increased as appropriate to maintain levels below fifty percent (50%). Such changes in frequency shall be included in the SMP and noted in the Permittee's Annual Report.

(h) Detention and Retention Ponds

The Permittee shall ensure the performance of retention or detention ponds which discharge to, or receive stormwater from, its MS4. This shall include ponds that are owned by the Permittee and all privately-owned ponds where the Permittee maintains an easement or other legal authority pursuant to Section 6(A)(3)(a)(i) of this permit. At a minimum, the Permittee shall annually inspect all such retention or detention

ponds and remove accumulated solids to restore full solids capture design capacity where found to be in excess of 50% design capacity.

(i) Interconnected MS4s

As part of interagency agreements established pursuant to Section 6(B)(4)(h) of this permit, the Permittee shall coordinate with operators of interconnected MS4s (such as neighboring municipalities and DOT) regarding the contribution of potential pollutants from the storm sewer systems, contributing land use areas and stormwater control measures in the respective MS4s. This same coordination shall be conducted regarding operation and maintenance procedures utilized in the respective systems.

(j) Infrastructure Retrofit Program

The goal of the retrofit program is to “disconnect” existing Directly Connected Impervious Areas (DCIA). An area of DCIA is considered disconnected when the appropriate portion of the Water Quality Volume has been retained in accordance with the requirements of Section 6(A)(3)(a)(iii) of this Permit. This may be accomplished through retrofits or redevelopment projects (public or private) that utilize Low Impact Development (LID) and runoff reduction measures or any other means by which stormwater is infiltrated into the ground or reused for other purposes without a surface or storm sewer discharge. A redevelopment project, as that term is used here and in Section 6(A)(3)(a)(iii), is one that modifies an existing developed site for the purpose of enhancing, expanding or otherwise modifying its function or purpose. A retrofit project is one that modifies an existing developed site for the primary purpose of disconnecting DCIA. The DCIA calculation performed pursuant to Section 6(A)(3)(a)(viii) shall serve as the baseline for the retrofit program required in this section.

(i) DCIA Disconnection Tracking

Beginning on the effective date of this Permit as modified, the Permittee shall track, on an annual basis, the total acreage of DCIA that is disconnected as a result of redevelopment or retrofit projects within the MS4. Tracking the disconnection of DCIA means documenting within a given redevelopment or retrofit project, the amount of existing DCIA that is modified such that it is disconnected. This tracking may include disconnections of DCIA from redevelopment or retrofit projects implemented as early as five (5) years prior to the effective date of this Permit. Any redevelopment or retrofit of an existing developed site, whether public (municipal, state or federal) or private (residential, commercial or industrial) shall be included in this tracking.

Tracking the disconnection of DCIA does not apply for sites that were previously

undeveloped as there were no existing impervious surfaces on those sites. The total amount of DCIA that has been disconnected during a given year shall be reported in that year's Annual Report.

(ii) Retrofit Planning

On or before January 1, 2018, the Permittee shall develop a plan to implement retrofit projects to meet the goals of this section. The Permittee shall identify and prioritize sites that may be suitable for retrofit. Considerations for prioritizing retrofit projects may include outfall catchment areas that discharge to impaired waters, areas within the Urbanized Area of the MS4 or catchment areas with greater than eleven percent (11%) impervious cover. The Permittee shall select from the list of prioritized projects those that it will implement to meet the goals in subparagraph (iii) below. In the Annual Report for the fifth year of this permit, the Permittee shall report on its identification and prioritization process, the selection of the projects to be implemented, the rationale for the selection of those projects, and the total DCIA to be disconnected upon implementation of the projects.

(iii) Retrofit Schedule

By the end of this Permit term, the Permittee shall commence the implementation of the retrofit projects identified in subparagraph (ii), above, with a goal of disconnecting one percent (1%) of the Permittee's DCIA by the end of the Permit term, to the maximum extent practicable. The one percent (1%) goal may be achieved by compiling the total disconnected DCIA tracked pursuant to subparagraph (i), above, or the retrofit planning projects designated in subparagraph (ii), above, or a combination of the two.

If the one percent (1%) goal will not be met, the Permittee shall include in the Annual Report a discussion of what percentage of DCIA will actually be disconnected and why the remainder of the one percent (1%) goal could not be achieved based on the maximum extent practicable defined in Section 2(B). The Permittee shall also provide in the Annual Report for the fifth year of this permit a plan for continuation of the retrofit program and continue such program with a goal to disconnect one percent (1%) of DCIA in each year thereafter.

(B) STORMWATER MANAGEMENT PLAN

- (1) The Permittee shall, within one year from the start of the Permittee's first fiscal year that begins after the date of issuance of this permit, submit to the commissioner for his/her review and approval a Stormwater Management Plan ("SMP"). The SMP shall set 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. Notwithstanding the date of approval by the commissioner, the Permittee shall follow the timelines prescribed for these elements in this permit based on the effective date of the permit. Additionally, the Permittee must implement actions required to protect the surface waters of the state and to meet permit requirements.

- (2) If the commissioner disapproves the SMP or any portion thereof, the Permittee shall revise and resubmit a revised SMP within a timeframe determined by the commissioner. The Permittee shall submit an approvable revised SMP, that addresses the requirements of this permit and any deficiencies identified by the commissioner, no later than two years from the date of issuance of this permit.
- (3) Once the commissioner approves the SMP or any portion thereof, the Permittee shall implement it, and such SMP shall be deemed a condition of this permit and shall be enforceable as such.
- (4) Contents of the SMP

The SMP must reflect current conditions and provide, at a minimum, the following components:

(a) Pollution Prevention Team

The Permittee shall identify a team of individuals for the City who shall serve as members of a Stormwater Pollution Prevention Team ("team"). The team shall be responsible for implementing the SMP and assisting in the implementation, maintenance, and development of revisions to the SMP as well as maintaining control measures and taking corrective actions where required. The SMP shall clearly identify the responsibilities of each team member. One individual shall function as the Team Coordinator and shall coordinate the functions and responsibilities of the team members. The Team Coordinator shall be responsible for oversight of the SMP and compliance with this permit. The activities and responsibilities of the team shall address all aspects of the SMP. Each member of the team must have ready access to either an electronic or paper copy of applicable portions of this permit and the SMP.

(b) Mapping

Through a geographic information system or other methods, on or before December 3, 2017, the Permittee shall provide a general city-wide map with enough detail to identify the location of stormwater outfalls, the location of all sampling points pursuant to the Monitoring and Analyses section (Section 7), City-owned roadways, the location of city designated business, commercial, and special event areas, all receiving waters where Stamford MS4 discharges occur, and the watersheds of these



receiving waters, including identification of those waters identified as impaired as defined in Section 2 of this permit. The Permittee shall also comply with any mapping requirements pursuant the Illicit Discharge Detection and Elimination (IDDE) Program section (Section 6(D)(4)(c)). The Permittee may include any other mapping such as zoning, economic development, impervious cover, drainage areas, stormwater treatment facilities or other criteria that serve to clarify elements of the SMP or verify compliance with the permit. Where additional mapping is provided, the Permittee shall include a description of its purpose.

(c) Control Measures

The SMP shall include a description of the location and type of control measures installed and/or implemented in accordance with the "Control Measures" section (Section 6(A)). The Permittee shall discuss the appropriateness and priorities of control measures in the SMP and how they address potential sources of pollutants to receiving waters. The SMP shall include a schedule for implementing the control measures as well as maintaining them where appropriate.

(d) Illicit Discharge Detection and Elimination (IDDE) Program

The SMP shall include a program to detect and eliminate existing illicit discharges and to prevent future illicit discharges. The IDDE program shall include inspections, detection protocols, dry- and wet-weather monitoring, discharge removal protocols, and any other measures as required by Section 6(D) of this permit.

(e) Monitoring Program

The SMP shall include a description of the monitoring program and sampling data in accordance with the Monitoring and Analyses section (Section 7). The SMP shall also include a description of and sampling data from any monitoring necessary to implement the IDDE Program in Section 6(D). The Permittee shall include in the SMP any additional monitoring that may be conducted to clarify or comply with any other elements of this permit along with a description of its purpose.

(f) Schedules and Procedures

The Permittee shall document in the SMP the schedules and procedures for implementation of mapping, control measures, monitoring, inspections, IDDE, reporting and any other elements of this permit that require scheduling. These include, but are not limited to: sweeping, catch basin cleaning, waste management practices and other good housekeeping measures; regular inspection, maintenance, and repair/rehabilitation of stormwater infrastructure; procedures for preventing and responding to spills and leaks; maintenance practices for city-owned properties and

buildings; employee training; all inspection programs; and any monitoring conducted pursuant to this permit.

(g) Legal Authority

The Permittee shall document in the SMP and in the Annual Reports the provisions implemented to ensure legal authority to control discharges to and from the Stamford MS4 as required in the various Legal Authority subsections of this permit. This legal authority may be a combination of ordinance, lawful delegation of authority from another agency, permit, or agreements with other entities.

(h) Coordination

Where a portion of the separate storm sewer system within a municipality is owned or otherwise the responsibility of another municipality, or a state or federal agency, the Permittee and entities shall coordinate the development and implementation of their respective Stormwater Management Plans to address all the elements of Section 6(B). A description of the respective responsibilities for these elements shall be included in the Stormwater Management Plan for each municipality and/ or agency.

(i) Consistency with Other Plans and Permits

Where applicable, the SMP may reference requirements contained in a Spill Prevention Control and Countermeasure (SPCC) plan or a plan prepared or approved under the Resource Conservation and Recovery Act (RCRA) and other plans required by state, federal or local law. A copy of the pertinent sections of any referenced plan must be kept with the SMP. The SMP shall identify all general and individual permits issued by the DEEP for which the Permittee is authorized.

(5) Stormwater Management Program Resources

The Permittee shall provide adequate finances, staff, equipment, and support capabilities necessary to implement all elements of the SMP. A summary of dedicated resources and support capabilities shall be documented in the SMP and the Annual Reports.

(6) Stormwater Management Plan Review and Modification

(a) SMP Review

The Permittee shall undertake an annual review of its current SMP in conjunction with preparation of the annual report required under Section 8(A) of this permit.

(b) SMP Modification by Permittee

The Permittee may modify the SMP during the term of this permit in accordance with the following procedures:

- (i) The approved SMP shall not be modified by the Permittee without the prior written approval of the commissioner, unless in accordance with subparagraph (ii) below.
- (ii) Modifications adding (but not subtracting or replacing) components, activities, controls, or requirements to the approved Stormwater Management Plan may be made by the Permittee at any time upon written notification to the commissioner summarizing the modifications.
- (iii) Modifications replacing an ineffective or impracticable BMP specifically identified in the Stormwater Management Plan with an alternate BMP shall be documented in the Annual Report, with a justification for the modification.

(c) Modifications required by the commissioner

The commissioner may require modification of the SMP as needed to:

- (i) Assess impacts and/or correct adverse impacts that are causing or have the potential to cause pollution to surface waters receiving discharges from the Stamford MS4;
- (ii) Include more stringent requirements necessary to comply with new State or Federal statutory or regulatory requirements; or
- (iii) Include such other conditions deemed necessary by the commissioner to comply with the goals and requirements of the RCSA and the Clean Water Act, or
- (iv) the actions required by the Plan fail to ensure or adequately protect against pollution of the surface waters of the state; or
- (v) the Permittee is notified that a TMDL to which the Permittee is subject has been established for the stormwater receiving water; or
- (vi) actions are necessary to address any significant sources or potential sources of pollution identified as a result of any inspection or visual monitoring.

Modifications required by the commissioner pursuant to this subsection shall be made in writing, set forth the time schedule for the Permittee to develop the modification(s), and offer the Permittee the opportunity to propose alternative SMP modifications to meet the

objective of the required modification. All required modifications must be made in accordance with the required time schedule.

(7) Plan Certification

The SMP shall contain the following certification, signed by a professional engineer licensed to practice in the State of Connecticut:

“I certify that I have thoroughly and completely reviewed the Stormwater Management Plan prepared for the City of Stamford. I further certify, based on such review and site visit by myself or my agent, and on my professional judgment, that the Stormwater Management Plan meets the criteria set forth in this permit. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements.”

(C) MONITORING

The Permittee shall implement a monitoring program to monitor Stamford MS4 discharge and existing water quality, wet-weather impacts to water quality, possible illicit discharges to the MS4 or waters of the state, track compliance with this permit, and track progress in reducing negative impacts to surface waters of the state. Monitoring shall be conducted in accordance with Section 7 of this permit. Monitoring for the detection of illicit discharges shall be conducted in accordance with Section 6(D) of this permit.

(D) ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PROGRAM

The Permittee shall develop an Illicit Discharge Detection and Elimination (IDDE) program designed to: provide the legal authority to prohibit and eliminate illicit discharges to the MS4; find the source of any illicit discharges; eliminate those illicit discharges; and ensure ongoing screening and tracking to prevent and/or eliminate future illicit discharges.

(1) IDDE Program Elements

- (a) Illicit discharges to the MS4 are prohibited, and any such discharges are a violation of this permit and remain a violation until they are eliminated. The Permittee shall prohibit all illicit discharges from entering its MS4. Upon detection, the Permittee shall eliminate illicit discharges as soon as possible and require the immediate cessation of such discharges upon confirmation of responsible parties in accordance with its enforceable legal authorities established pursuant to subsection (b) below. Where elimination of an illicit discharge within thirty (30) days of its confirmation is not possible, the Permittee shall establish a schedule for its elimination; such schedule not to exceed six (6) months. No later than six (6) months after confirmation, such discharges shall be eliminated or the Permittee shall initiate appropriate enforcement

actions. In the interim, the Permittee shall take all reasonable and prudent measures to minimize the discharge of pollutants to its MS4.

- (b) The Permittee shall implement outfall screening and an illicit discharge detection protocol pursuant to subsections (3) and (4) below to identify, prioritize, and investigate separate storm sewer catchments for suspected illicit discharges of pollutants.
- (c) The Permittee shall maintain a record of illicit discharge abatement activities including, at a minimum: location, description, method of discovery, date(s) of inspection, sampling data (if applicable), action(s) taken, date of removal or repair, responsible party(ies), costs associated with removal or repair, and estimated daily flow or total volume removed. This information shall be included in the Permittee's annual reporting pursuant to the "Annual Report" section (Section 8) of this permit.

## (2) Legal Authority

Within one (1) year of the effective date of this permit, the Permittee shall ensure that it obtains or maintains the necessary and enforceable legal authority established by statute, ordinance, rules and regulations, permit, easement, contract, order and any other means, to:

- (a) prohibit illicit discharges to its MS4 and require removal of such discharges consistent with subsection (1)(a), above, of this permit; and
- (b) control the discharge of spills and prohibit the dumping or disposal of materials including, but not limited to, industrial and commercial wastes, trash, used motor vehicle fluids, food preparation waste, leaf litter, grass clippings, and animal wastes into its MS4; and
- (c) assess fines or penalties and/or recoup costs incurred by the City from anyone creating an illicit discharge or spilling or dumping as specified in subsections (2)(a) and (2)(b), above.

## (3) Outfall Screening for Illicit Discharges

The Permittee shall screen its MS4 outfalls during dry weather conditions for physical, chemical, and biological indicators of the presence of illicit discharges.

### (a) Known Illicit Discharges

Whether documented by the commissioner, the Permittee, or others, outfalls from drainage areas with known or highly suspected contributions of illicit discharges may have already been identified. Screening of outfalls serving such portions of the MS4

is not required for the purpose of prioritization as required in subsection (c) below, and the Permittee shall continue or initiate identification and removal procedures for illicit discharges in these areas based on the Permittee's priority ranking established pursuant to subsection (c) below. Within one hundred eighty (180) days of the effective date of this permit the Permittee shall submit to the commissioner an inventory of all MS4 outfalls for which the Permittee deems screening is not required pursuant to this subsection. For each such drainage area, the Permittee shall provide:

- (i) all available documented evidence, including monitoring results, of illicit discharges;
- (ii) completed, ongoing or planned corrective measures addressing the documented illicit discharges; and
- (iii) a schedule for completing and verifying measures correcting the documented illicit discharges.

(b) Priority Ranking of Outfall Screening

The Permittee shall develop a priority ranking for the purpose of scheduling its outfall screening activities required by this part. The commissioner recommends that the Permittee consider the current or intended designated uses of receiving waters, existence of impaired waters, and the relative likelihood of the presence of illicit discharges in the development of its priority ranking.

(c) Priority Ranking for IDDE Investigation

Screening of outfalls (in the priority ranking developed in subsection (b) above) shall be completed to facilitate the priority ranking of individual separate storm sewer drainage areas for investigation using the Permittee's Illicit Discharge Detection Protocol ("IDDP") described in subsection (4) below. Analysis of screening results, including comparisons with benchmark values for parameters in Table 1 and Figure 1 in subsection (4)(d)(iv) below, shall support such prioritization. Screening of outfalls after implementation of the Permittee's IDDP shall serve to verify that the correction of all illicit discharges has been completed.

(d) Schedule

Except where excluded by subsection (3)(a) above, MS4 outfalls shall be screened at a rate of twenty five (25) percent of the outfalls known at the time of permit issuance during each of the first four years of the permit in order to permit timely execution of the Permittee's IDDP as described in subsection (4) below. For MS4 outfalls first identified after the date of issuance of this permit, the Permittee shall submit to the

commissioner a schedule for screening these outfalls. As described in subsection (4)(d)(viii) below, an additional round of screening is required as a verification of the completion of the IDDP within the drainage area of the outfall. Such verification screening shall be completed no more than sixty (60) days after the Permittee has verified removal of all such discharges contributing to the outfall's drainage area in accordance with subsection (4)(d)(vii) below.

(e) Methodology

Outfall screening shall proceed only during dry weather when no more than 0.1 inches of rainfall has occurred in the previous 48-hour period. The duration of the antecedent period may be shortened or lengthened by the Permittee as necessary or appropriate dependent upon rainfall depth or the relative extent, slope, storage, and other influences to assure that any stormwater runoff has ceased from the particular drainage area served by the outfall. Screening shall be performed according to the following procedures:

- (i) Locate the outfall, and take a photograph. At outfalls where photographs were previously taken, new photographs shall be taken from the same approximate orientation to facilitate comparison and determination of any changes.
- (ii) Collect data on physical condition of the outfall, including evidence of collapse and structural defects, and evidence of erosion or deposition in the vicinity of the outfall.
- (iii) Record any indicators of illicit discharges such as odors, oil sheen, discoloration, foaming, soap suds, slimes, or presence of sanitary floatables or solids.
- (iv) If the outfall is inaccessible or submerged, proceed to the first accessible upstream manhole or structure.
- (v) Outfall observation

Observe the outfall for evidence of illicit discharge and proceed as follows:

- If no flow is observed and there is no evidence of an illicit discharge (e.g. a residue unrelated to a stormwater discharge), this outfall will be assigned a lower priority ranking and the screening shall proceed to the next outfall.
- If flow is observed, estimate flow using the product of flow area and velocity or the quotient of volume discharged over time, perform the field analyses described in subparagraph (vi) below, and collect a grab sample for enumeration of *E.coli* indicator bacteria in the laboratory.

- If the outfall is not flowing, but shows evidence of an illicit discharge, return in 4 to 24 hours and screen again, completing flow estimation, field analyses, and grab sampling for indicator bacteria analysis if flow is subsequently observed. If no flow is observed initially and upon return, make note of the outfall to prioritize for future investigation and proceed to the next outfall.
- (vi) Field analyses of dry weather flow samples shall include measurement of the following parameters:

Conductivity  
Turbidity  
Dissolved Oxygen  
pH  
Chlorine  
Temperature  
Surfactants as (MBAS)  
Potassium  
Ammonia

Based on these field analyses, evidence of the degree and severity of an illicit discharge shall be taken into account in prioritizing outfalls for illicit discharge investigation pursuant to subsection (4)(b) below.

(4) Illicit Discharge Detection Protocol (“IDDP”)

(a) Implementation

The Permittee shall implement an IDDP according to the priorities developed pursuant to subparagraph (b) below, and consistent with the methodology described in subparagraph (d) below. The Permittee shall complete implementation of its IDDP for twenty (20) percent of the MS4 outfall drainage areas no later than **five (5) years** from the effective date of this permit. The drainage areas investigated shall include the highest 20 percent of the priority areas as determined by subparagraph (b) below. The IDDP shall be completed in minimum increments of twenty-five percent (25%) of these drainage areas no later than **2, 3, 4, and 5 years**, respectively, from the effective date of this permit. The Permittee shall eliminate all identified illicit discharges pursuant to the “IDDE Program Elements” section (Section 6(D)(1)(a)).



(i) Impaired Waters

If more than twenty (20) percent of the outfall drainage areas in the MS4 discharge to impaired waters, the Permittee shall include in their SMP a discussion of the criteria by which those areas in the highest 20 percent of prioritized drainage areas were chosen. The remaining drainage areas to impaired waters that are not included in the highest 20 percent of prioritized areas shall receive highest priority for future investigation. If the Permittee completes the initial 20 percent of highest priority areas ahead of the schedule in subsection (4)(a) above, the IDDP investigations shall proceed immediately to these remaining high priority areas discharging to impaired waters.

(b) Prioritization

The Permittee shall use the results from its dry weather outfall screening required by Section 6(D)(3) to develop a priority ranking of outfall drainage areas for the purpose of scheduling its IDDP implementation. The commissioner recommends that the Permittee consider the perceived severity of the pollution, the current or intended uses of receiving waters, impairment status, and any planned infrastructure improvements, in the development of its priority ranking. Drainage areas discharging to impaired waters will receive primary consideration when prioritizing.

(c) Mapping

Through a geographic information system or other methods, the Permittee shall, by December 3, 2017, prepare mapping to facilitate implementation of its IDDP. Mapping shall provide a comprehensive depiction of key infrastructure and factors influencing proper system operation and the potential for illicit discharges. Mapping themes shall include: key storm sewer infrastructure, investigation and study findings, monitoring data, cleaning and repair activities, capital projects, and water resource and topographic features. The required number, scale and detail of the maps shall be appropriate to facilitate a rapid understanding of the system by the Permittee and the commissioner. In addition, the mapping shall serve as a planning tool for the implementation and phasing of the IDDP, a demonstration of the extent of complete and planned investigations and corrections, and other related capital projects. Mapping shall proceed at a rate that will not impede implementation of the IDDP. To ensure legible mapping, information shall be grouped appropriately and represented thematically (e.g. by color) with legends or schedules where possible. Mapping shall be updated as necessary to reflect new information, corrections or modifications, and progress made. The following information and features, where currently available, shall be included in the mapping:

(i) Infrastructure

- Municipal separate storm sewer system (including inter-municipal and private connections where available)
- Thematic representation of sewer material, size, and age
- Storm sewer flow direction
- Select rim and invert elevations
- Aerial delineations of MS4 outfall drainage areas
- Areas served by on-site subsurface disposal systems
- Storm sewer alignments to which known or suspected underdrain systems may discharge

(ii) Water Resources and Topographic Features

- Water bodies and watercourses identified by name and water quality classification
- Impaired waters (including type of impairment)
- Inland wetlands
- Tidal wetlands
- Topography
- Orthophotography

(iii) O&M, Investigations, Remediation, and Capital Projects

- Alignments, dates, and thematic representation of work completed (with legend) of past illicit discharge investigations (e.g. flow isolation, dye testing, closed-circuit television (CCTV))
- Locations of suspected, confirmed, and corrected illicit discharges (with dates and flow estimates)
- Water quality monitoring locations with representation of water quality indicator concentrations

- Recent and planned storm sewer infrastructure cleaning and repair projects
- Planned capital projects relative to utility and roadway rehabilitation or replacement
- Proposed phasing of future illicit discharge investigations

(d) IDDP Methodology

The IDDP shall utilize methodologies described in this subsection to perform a thorough investigation of MS4 outfall drainage areas that relies on results from visual observation, field test kits, and portable instrumentation during dry weather conditions to isolate areas or alignments with likely illicit discharges. Internal plumbing inspections, dye or smoke testing, CCTV inspections, or other methods consistent with the Permittee's established procedures shall then be employed to confirm the illicit and non-stormwater flow sources.

(i) Notification

Prior to beginning an IDDP investigation that may involve smoke testing in a given drainage area, the Permittee shall notify all residents, businesses and all other property owners or occupants within that drainage area of the impending testing.

(ii) Infrastructure Verification and Preparation

Infrastructure mapping and drainage area delineations shall be verified in the field and corrected, as necessary, prior to investigations. MS4 infrastructure shall be evaluated for the need to be cleaned to remove debris or blockages that could compromise investigations. Such material shall be removed prior to investigation, where possible. However, some cleaning may occur concurrently.

(iii) Dry Weather Criteria

In order to prevent or limit the influence of stormwater runoff during the investigations, inspections and field monitoring shall not begin for at least 24 hours after any previous storm event greater than 0.1 inches. The duration of this dry weather period may be shortened or lengthened by the Permittee as necessary or appropriate dependent upon rainfall depth or the relative extent, slope, storage, and other influences on the particular drainage area under investigation.

(iv) Storm Sewer Inspection Methodology

Visually inspect outfalls in dry weather conditions to determine the possible presence of dry weather flows. Depending on the findings, conduct one of the

procedures below. Table 1 indicates which analytes will be used for the determination of illicit discharges.

- **No Dry Weather Flow:** If no dry weather flow is observed at an outfall and there is no evidence of one (color, algae, etc.), no further inspection of the outfall or its contributing drainage alignment is required during the term of this permit.

If there is no dry weather flow but there is evidence of one (color, algae, etc.), proceed as follows:

- Partially dam the outfall when no rain is forecast for at least 48 hours;
- Re-inspect the outfall within 24 to 48 hours of damming (prior to any precipitation or snow melt) for evidence of the capture of periodic or intermittent flows behind the inlet dam. If, upon reinspection, there is no evidence of dry weather flows, re-inspect within six months. If, upon reinspection, there is evidence of dry weather flows, visual observations and field testing pursuant to the procedures below shall be completed on any captured flow to identify alignments for additional inspections.
- **Groundwater Dry Weather Flow** – If a dry weather flow is observed, test the flow for the analytes in Table 1 (pursuant to subsection (iv) below) and inspect the flow for evidence of an illicit discharge (color, odor, sheen, etc). If discharge is determined to be groundwater:
  - Inspect upstream stormwater structures to determine the source of the groundwater infiltration. For all inlets to upstream structures, follow the procedures of this subsection for determination of dry weather flows. Take samples at the most upstream structure which has flows to ensure the flow is only groundwater;
  - Go to the next upstream structures including those on tributary lines. Ensure that there is no evidence of dry weather flow, including discoloration or other indications that there may have been a dry weather flow at one time. Once the next upstream structure exhibits no dry weather flow or evidence of one, no further upstream inspection of that alignment is required.
  - Document all observations, take photographs and include test results as part of the documentation. Indicate on a map which structures have been inspected. The map will also be part of the permanent documentation.

- Re-inspect within six months.
- **Contaminated Dry Weather Flow:** If a dry weather flow is observed and testing or visual inspection indicates that the discharge is other than groundwater:
  - Inspect next upstream stormwater structure(s) to determine which ones show signs of dry weather flow. There may be several structures depending on the tributaries;
  - For any tributary that shows signs of dry weather flow, continue to follow that upstream using the procedures of this subsection, inspecting every structure including sub-tributaries until no structures show any indication of dry weather flow;
  - Repeat for all tributaries that show signs of dry weather flow.
  - Take samples whenever possible. Document all observations, take photographs and include test results as part of the documentation. Indicate on a map which structures have been inspected. The map will also be part of the permanent documentation.
  - For alignments that indicate an illicit discharge, the next step is to smoke test the area to determine the source of the discharge following the notification procedures.
  - If the location is identified, appropriate corrections will be made to stop the illicit discharge.
  - If no location is determined, dye testing of potential upstream sources shall be conducted and then the violation corrected.
  - If no location is still identified, the area will be monitored twice per month to establish the cause of this illicit discharge.

(v) Field Monitoring

Where flow is observed that does not demonstrate obvious physical or olfactory evidence of the type and source of an illicit discharge, a sample shall be collected and analyzed with the field kits and instrumentation as identified in Table 1. The Permittee shall compare the measured values with benchmark values using the flow chart in Figure 1 to determine the likely source of the flow. Where surfactant concentrations are measured in the flow above the benchmark,

ammonia and potassium shall be measured and results used in a ratio analysis to determine if the flow is likely to be governed by a sanitary or wash water component. Where surfactants are not detected above the benchmark concentration, a flow sample shall be analyzed for chlorine in an attempt to determine if the likely source is natural surface water or groundwater, or possibly a potable water source, a swimming pool, or an industrial discharge. However, the results of this analysis may not always prove conclusive as the chlorine demand found in the storm sewer may diminish or eliminate any chlorine present. The Permittee may need to adjust benchmark values found in Table 1 during the course of investigations after a comparison and calibration of data with actual incidences of observed flow sources.

If the results of field monitoring are not conclusive or additional data is needed to confirm that the source of an illicit discharge is human-generated, alternate parameters for Pharmaceutical and Personal Care Products (PPCP) may be monitored as indicated in Table 2. Any or all of these parameters may be analyzed. These samples must be analyzed by a laboratory with the appropriate capability. Advance notice to the lab may be required. Levels of these parameters above the Reporting Limit indicate the presence of human-generated contamination.

**Table 1 - Field Measurements, Benchmarks, and Instrumentation**

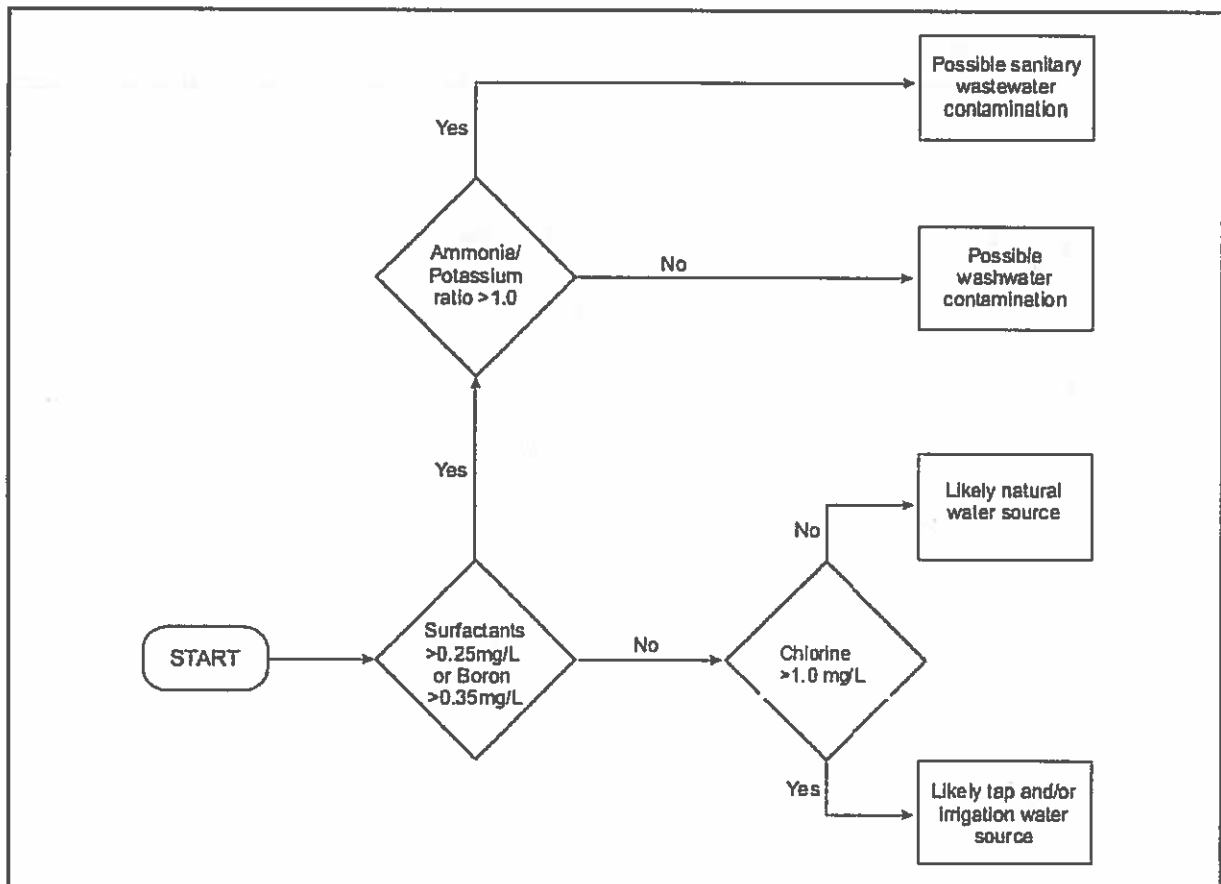
<u>Analyte</u>	<u>Benchmark</u>	<u>Instrumentation</u> <sup>1</sup>
Surfactants (as MBAS)	>0.25 mg/L	MBAS Test Kit (e.g. CHEMetrics K-9400)
Potassium (K)	(ratio below)	Portable Ion Meter (e.g. Horiba Cardy C131)
Ammonia (NH3)	NH3/K > 1.0	Portable Colorimeter or Photometer (e.g. Hach DR/890, CHEMetrics V-2000)
Chlorine	>0.1 mg/L	Portable Colorimeter or Photometer (e.g. Hach DR/890, CHEMetrics V-2000)
Temperature	Abnormal	Thermometer
pH	Abnormal	pH Meter

<sup>1</sup> Instrumentation manufacturers and models provided for informational purposes only. Mention of specific products does not constitute or imply DEEP endorsement of same.

**Table 2 – Compounds for Pharmaceutical and Personal Care Products Analysis**

<u>Compound</u>	<u>Major Use</u>	<u>Reporting Limit (ng/L)</u>
Caffeine	Natural Stimulant	5.0
1,7 DMX	Metabolite of caffeine	2.5
Acetaminophen	Pain reliever	2.5
Carbamazepine	Anti-depressant, Anti-convulsant	0.5
Primidone	Anti-epilepsy drug	5.0
Atenolol	Beta blocker, high blood pressure medicine	2.5
Cotinine	Metabolite of nicotine	0.5
Urobilin	By-product of hemoglobin breakdown	5.0
Azithromycin	Antibiotic	1.6

**Figure 1. Flow Chart - Determining Likely Source of Discharge (Adapted from Pitt, 2004)**



(vi) Isolation and Confirmation of Illicit Discharges

Where physical evidence or field monitoring has identified storm sewer alignments influenced by illicit discharges, the Permittee shall isolate the tributary area for implementation of more detailed investigations. Additional manholes and/or catch basins along the alignment shall be inspected to refine the location of potential contamination sources (e.g., an individual home or block of homes). Targeted internal plumbing inspections, dye or smoke testing, CCTV inspections, or other methods consistent with the Permittee's established procedures shall then be employed to confirm the flow source(s).

(vii) Removal of Illicit Discharges

Where an illicit discharge is verified, the Permittee shall exercise its authority as necessary to require its removal pursuant to Sections 6(D)(1)(a) and 6(D)(2) of this permit, including prompt notification and any appropriate cost-sharing arrangements.

(viii) Verification of Illicit Discharge Removals

After completing the removal of all illicit discharges from a particular alignment or portion of an MS4 outfall drainage area, the Permittee shall verify that no illicit discharges remain. Depending on the extent and timing of corrections made, verification monitoring may be accomplished at the original junction structure or the closest downstream MS4 structure to each correction. Verification shall be accomplished by using the same visual inspection, field monitoring, and/or damming techniques as described in subparagraphs (iii) through (v) above. Investigation of those portions of any other alignments confounded by the identified illicit discharge(s) shall not proceed until removal or elimination has been verified.

(ix) Verification of IDDP Completion in MS4 Drainage Areas

A completed verification at the outfall (or the first accessible upstream structure from an inaccessible MS4 outfall) of an MS4 outfall drainage area shall serve to demonstrate that the IDDP has been fully implemented for that entire drainage area. This drainage area verification shall include both the techniques described in subparagraphs (iii) through (v) above, as well as completion of the dry weather screening methodology described in Section 6(D)(3)(e).



(x) Work Progression & Schedule

Since the IDDP requires verification of illicit discharge removals prior to progressing to affected portions of interconnected MS4 drainage areas, the Permittee shall maintain capacity to mobilize investigations to other drainage areas or unaffected lateral alignments within the same drainage area, to facilitate suitable progress while awaiting correction of illicit discharges confounding investigations within the same outfall drainage area. Since work progress may be further constrained by the persistence of precipitation and snow melt events, the Permittee shall provide for adequate staffing and equipment resources to perform concurrent investigations in multiple areas as necessary to complete all investigations, as specified in subsection (4)(a) above, within five (5) years from the effective date of this permit.

(xi) Reporting and Evaluation

The Permittee shall document in its Annual Reports required by Section 8 its progress implementing the provisions of Section 6(D)(4), including the results and status of its outfall screening and monitoring, mapping, and IDDP implementation. The Permittee shall evaluate its progress by tracking, at a minimum, the percentage of MS4 outfall drainage areas or outfalls screened and/or monitored, percentage of structures inspected, and the footage or percentage of MS4 cleaned and inspected by CCTV.

(xii) Modifications

Though the IDDP is applicable to most storm sewers, modifications to methods and materials may be required to address situations where groundwater or backwater conditions or other issues preclude adequate implementation as described herein. In such instances, the Permittee shall make necessary modifications to the IDDP in accordance with Section 6(B)(6)(b) of this permit.

## SECTION 7: MONITORING REQUIREMENTS

(A) Legal Authority

The Permittee shall, within eighteen months from the start of the first fiscal year that begins after the effective date of this permit, ensure legal authority to:

- (1) carry out all inspection, surveillance and monitoring procedures necessary to determine compliance with this permit;

(B) Monitoring and analysis activities shall include wet weather outfall monitoring for discharges to

impaired waters; dry and wet weather outfall screening for illicit discharges; and implementation of an illicit discharge detection protocol.

- (C) Upon the effective date of this permit, the Permittee shall begin implementation of activities described in this part. Within one year from the start of the Permittee's first fiscal year that begins after the effective date of this permit the Permittee shall submit as part of its SMP submission pursuant to Section 6(B)(1) of this permit, a description of the means, methods, quality assurance and control protocols, and schedule for successfully implementing the required screening, field monitoring, laboratory analysis, investigations, and analysis and evaluation of data collected. The submission shall include a description of meteorological resources the Permittee intends to utilize to facilitate the required activities.

(D) Dry Weather Outfall Screening for Illicit Discharges

Outfall screening shall be conducted during dry weather conditions as described in the Illicit Discharge, Detection and Elimination (IDDE) Program section (Section 6(D)).

(E) Impaired Waters Outfall Investigation and Monitoring

The permittee shall create an inventory of all outfalls that discharge to impaired waters, utilizing the list and mapping prepared pursuant to Sections 6(B)(4)(b) and 6(D)(4)(c)(ii). The permittee shall then screen these outfalls for the pollutant identified as the pollutant of concern for the impairment in accordance with the following procedures. If the permittee has wet weather sampling data for an outfall pursuant to their sampling conducted under their previous MS4 permit or other appropriate wet weather sampling, they may use that data for their outfall screening and will not be required to screen that outfall under this permit.

(1) Outfall Screening for Phosphorus and Nitrogen

The permittee shall screen outfalls from the MS4 identified in Section 7(E), above, that discharge to impaired waters for which phosphorus or nitrogen is the pollutant of concern. The permittee may take a sample at the outfall during any rain event that results in a discharge from the outfall in accordance with Section 7(F), below. This screening shall be conducted for all such outfalls at least once during the term of this permit in accordance with subparagraphs (a) and (b) below.

(a) Nitrogen Screening

The permittee may use a portable nitrogen meter to take a field reading during the wet weather discharge. If the nitrogen reading exceeds the following threshold, the outfall shall be identified for follow-up investigation pursuant to subsection (4), below.

Total Nitrogen > 2.5 mg/l

(b) Phosphorus Screening

The permittee may use a portable phosphorus meter to take a field reading during the wet weather discharge. If the phosphorus reading exceeds the following threshold, the outfall shall be identified for follow-up investigation pursuant to subsection (4), below.

Total Phosphorus > 0.3 mg/l

(2) Outfall Screening for Bacteria

The permittee shall screen outfalls from the MS4 that discharge to impaired waters for which bacteria is the pollutant of concern. The permittee may take a sample at the outfall during any rain event that results in a discharge from the outfall in accordance with Section 6(F), below. The sample shall be analyzed for the following:

- E. coli and Total Coliform (col/100ml) (for discharges to Class AA, A and B surface waters)
- Fecal coliform and Enterococci (col/100ml) (for discharges to Class SA and SB surface waters)

The outfall shall be identified for follow-up investigation pursuant to subsection (4) below if any of the following conditions apply:

- E. coli >235 col/100ml for swimming areas and >410 col/100ml for all others, or
- Total Coliform >500 col/100ml, or
- Fecal coliform >31 col/100ml for Class SA and >260 col/100ml for Class SB, or
- Enterococci >104 col/100ml for swimming areas and >500 col/100ml for all others.

If the permittee can document that bacteria levels at an outfall that exceed these levels are solely the result of natural sources of bacteria, they are not required to conduct a follow-up investigation for that outfall. Natural sources may include wildlife or runoff from undeveloped wooded areas but do not include pet waste or waterfowl congregating at parks, ponds or other attractive nuisance areas.

(3) Outfall Screening for Other Pollutants of Concern

The permittee shall screen outfalls from the MS4 identified in Section 7(E) that discharge to impaired waters for which pollutants other than phosphorus, nitrogen or bacteria are listed as the pollutant of concern. The permittee shall take a sample at the outfall and in-stream immediately upstream or otherwise outside the influence of the outfall. The sample may be taken during any rain event that results in a discharge from the outfall in accordance with Section 7(F), below. These samples shall be analyzed for turbidity. The permittee may use a field turbidity meter for these analyses. If the outfall sample is more than 5 NTU greater than the in-stream sample, the outfall shall be identified for follow-up investigation pursuant to subsection (4) below.

(4) Follow-up Investigations

The permittee shall conduct follow-up investigations for the drainage areas associated with the outfalls identified as potentially contributing to an impairment as a result of the analyses conducted pursuant to Sections 7(E)(1) – (3), above.

(a) Drainage Area Investigation

The permittee shall investigate activities within the drainage area contributing to each outfall identified for follow-up investigation pursuant to Sections 7(E)(1) – (3), above. This investigation shall include factors potentially associated with the cause of the related stream impairment. Such factors may include: land use or development patterns; business or commercial activities; industrial activities; DCIA; natural contributors; potential MS4 maintenance issues; residential activities; and any other activities identified by the permittee as potentially contributing to the related impairment.

(b) Control Measure Implementation

In each outfall drainage area identified for follow-up investigation pursuant to Sections 7(E)(1) – (3), above, the permittee shall implement a BMP program focusing on the potential cause of the impairment utilizing Control Measures in Section 6(A) or other appropriate measures and on the findings of the drainage area investigation in subparagraph (a), above.

(c) Prioritized Outfall Monitoring

Once outfall screening has been completed for at least half of the outfalls identified pursuant to this section, the permittee shall utilize the screening results to select six (6) of the highest contributors of any of the pollutants of concern. These six outfalls shall

be sampled annually for the appropriate pollutant of concern in accordance with the schedule in subsection (5), below. If more than one pollutant of concern is identified for any monitored outfall (i.e. more than one impairment), all of these pollutants shall be monitored. If fewer than six outfalls were identified for follow-up investigation, all of these outfalls shall be monitored, but no more than six.

(5) Schedule

(a) Impaired Waters Discharge Mapping

Inventory and mapping of discharges to impaired waters prepared pursuant to this section shall be completed within four (4) years from the effective date of this permit.

(b) Outfall Screening

Outfall screening pursuant to Sections 7(E)(1) – (3) shall begin within four (4) years of the effective date of this permit. At least twenty-five percent (25%) of these outfalls shall be screened no later than the end of the permit term. All such outfalls shall be screened within ten (10) years of the effective date of this permit.

(c) Follow-up Investigations

The permittee shall commence follow-up investigations identified pursuant to subsection (4), above, no later than four (4) years following the effective date of this permit.

(d) Prioritized Outfall Monitoring

The permittee shall commence annual monitoring of the six outfalls for each watershed for which outfall screening has been completed no later than one (1) year following completion of outfall screening for that watershed.

(6) Reporting

The permittee shall report on the progress of their impaired waters investigation and monitoring program in their Annual Report beginning in the fourth year following the effective date of this permit. The report shall include a listing of the outfalls screened during the year, the number of outfalls identified for follow-up investigation, the progress of drainage area investigations, a description of the control measure implementation for the different impairments, identification of the six outfalls to be monitored, and the results of the prioritized outfall monitoring.

(F) Stormwater Monitoring Procedures

(1) Wet Weather Outfall Monitoring

Samples shall be collected from discharges resulting from any rain storm that produces a discharge from the outfall(s) being monitored and that occurs at least 48 hours after any previous rain storm that produced a discharge from the outfall. Runoff events resulting from snow or ice melt alone cannot be used to meet these monitoring requirements. However, monitoring may be conducted during a rain event that may include insignificant amounts of snow or ice melt. Monitoring shall consist of a single grab sample taken within the first six (6) hours of discharge from the outfall.

(2) Rain Event Information

The following information shall be collected for the rain events during which monitoring is conducted:

- (a) The date, temperature, time of the start of the discharge, time of sampling, and magnitude (in inches) of the rain event sampled.
- (b) The duration between the rain event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) rain event.

(3) Test Procedures

Unless otherwise specified in this permit, all pollutant parameters shall be tested according to methods prescribed in Title 40, CFR, Part 136 (1990). Laboratory analyses shall be consistent with Connecticut Reasonable Confidence Protocols.

(G) Monitoring Waiver

If the Permittee is unable to collect a sample required by Sections 7(D) or 7(E) due to adverse climatic conditions, the Permittee shall submit in lieu of sampling data a description of why samples could not be collected, including available documentation of the storm event. Adverse climatic conditions that may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample dangerous or physically impossible. However, if more than one (1) sample is missed, the missed outfalls shall be resampled as soon as possible or an alternate outfall designated and sampled as soon as possible.

## SECTION 8: REPORTING AND RECORD KEEPING REQUIREMENTS

### (A) Annual Report

The Permittee shall prepare an annual report each year summarizing the activities conducted and measures taken to comply with this permit in the previous year.

#### (1) Schedule

The first Annual Report shall be submitted no later than one (1) year plus ninety (90) days from the effective date of this permit. Subsequent Annual Reports shall be submitted no later than ninety (90) days after the anniversary of the effective date of this permit.

#### (2) Public Availability

The Annual Report shall be made available to the public for review and comment thirty (30) days after the anniversary of the effective date of this permit. The Permittee shall make the Annual Report available to the public electronically (i.e. city website) and in "hard copy" for at least thirty (30) days at a minimum of one City office and one public library branch. Notice of availability of the Annual Report shall be published in at least one newspaper with circulation throughout the City of Stamford and also posted on the City website. A summary of any public comments, the Permittee's response to such comments, and any proposed modifications to the SMP as a result of comment shall be included in the Annual Report submitted to the commissioner.

#### (3) Contents of the Annual Report

The Annual Report shall include the following sections: Contacts List; Program Evaluation; Summary Table; Narrative Report; Summary of Proposed Program Modifications; Resource Analysis; and Appendices. The following paragraphs describe in more detail the specific requirements for the Annual Report.

##### (a) Contacts List

Provide a list of all those, with their names, employers, addresses and phone numbers, who had input to or responsibility for the preparation of the Annual Report.

##### (b) Program Evaluation

Describe the objective of the SMP, major findings (water quality improvements or degradation), overall SMP strengths and weaknesses, and the future direction of the Stormwater Management Program.

(c) Summary Table of SMP Components

The Permittee shall submit a summary table of the SMP's yearly activities. The purpose of the Table is to document in a concise form the program activities and Permittee's compliance with specific program requirements. Program elements that are administrative (e.g. planning procedures, program development and pilot studies) are inappropriate for the Summary Table and shall be reported on in the Narrative section of the Annual Report. The summary table shall indicate the Permittee's SMP's activities and accomplishments. The table shall include all major elements of the SMP including control measure BMPs, monitoring, legal authority, IDDE and other appropriate additional program items. Items that shall be reported for each program activity are:

- (i) Activity Description.
- (ii) Number of actions (with frequency) that were *scheduled* for implementation and/or accomplishment in the SMP (e.g. once/6 months, 20% of the activity completed/year, 10 sites monitored 4 times/year, etc.). Enter "not applicable" if no specific schedule was presented in the SMP.
- (iii) Status of schedule for the reporting year (yes-schedule was adhered to, or no-schedule was not adhered to).
- (iv) Number of activities that *were* accomplished.
- (v) Permittee's comments on the activity.
- (vi) Public comments on the activity and Permittee's response.

(d) Narrative Report

The narrative report provides an opportunity for the Permittee to discuss in further detail any of the elements of the SMP that may require clarification beyond that of the summary table. It may include a discussion of such items as scheduling issues, climate conditions as they might affect monitoring or IDDE, unforeseen circumstances, legal authority issues, or public input. A discussion of issues resulting in modifications to the SMP should be included in subsection (5) below.

(e) Summary of Proposed SMP Modifications

The Permittee shall report on any SMP modifications proposed and/or implemented by the Permittee either at the Permittee's discretion or as a modification required by the commissioner pursuant to Sections 6(B)(6)(b) or (c), respectively. This narrative



shall discuss the reasons for the modification, the nature of the modification, any approvals or requirements by the commissioner, the progress of implementing the modification, and the results of implementation.

(f) Program Resource Analysis

The Permittee shall report on the status of obtaining or developing the resources necessary to fully implement the SMP.

(i) Fiscal Analysis

The Permittee shall provide a complete fiscal analysis for the Permittee's SMP implementation, both for the past calendar year and the next. The analysis shall indicate budgets and funding sources for implementation of the Stormwater Management Program and the requirements of this permit.

(ii) Staff and Resources

The Permittee shall also provide annually updated information on the staff, equipment and support capabilities used to implement the Permittee's SMP, demonstrating that all items are adequate to ensure full permit compliance.

(iii) Legal Authority

Provide documentation supporting the Permittee's legal authority to administer this program and all elements of the Stormwater Management Plan.

(g) Appendices

The following information shall be included as Appendices to the Annual Report:

(i) Progress of outfall mapping.

(ii) Results of impaired waters outfall monitoring.

(iii) Results of dry weather outfall screening.

(iv) Results of illicit discharge monitoring.

(v) Any ordinances, permits, contracts, orders or other legal authority used by the Permittee to regulate discharges to the MS4.

- (vi) Any other data required to substantiate statements and conclusions reached in the Annual Report.

(4) Report Submission

The Annual Report shall be submitted to:

Stormwater MS4 Permit Coordinator  
Bureau of Materials Management & Compliance Assurance  
Connecticut Department of Energy and Environmental Protection  
79 Elm St.  
Hartford, CT 06106-5127

In addition, the Annual Report shall be submitted to NetDMR following the procedures in Section 8(B)(1)(c), below.

(B) Monitoring

(1) Outfall Monitoring

- (a) The results of chemical analyses and/or screening required by Section 7 of this permit shall be entered on the Discharge Monitoring Report (DMR), provided by this office, and reported to the Bureau of Materials Management and Compliance Assurance (Attn: DMR Processing) at the address below. Any additional monitoring conducted in accordance with 40 CFR 136 or other methods approved by the commissioner shall also be included on the DMR, or as an attachment, if necessary. The DMR shall be received at this address by the last day of the month following the month in which samples are collected.

Bureau of Materials Management and Compliance Assurance  
Water Permitting and Enforcement Division (Attn: DMR Processing)  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

- (b) Where this permit requires monitoring of a discharge on a calendar basis (e.g. seasonally), but a discharge has not occurred within the frequency of sampling specified in the permit, the Permittee must submit the DMR, as scheduled, indicating "NO DISCHARGE".
- (c) NetDMR Reporting Requirements
  - (i) Prior to one-hundred and eighty (180) days after the issuance of this permit, the

Permittee may either submit monitoring data and other reports to the Department in hard copy form or electronically using NetDMR, a web-based tool that allows Permittees to electronically submit discharge monitoring reports (DMRs) through a secure internet connection. Unless otherwise approved in writing by the commissioner, no later than one-hundred and eighty (180) days after the issuance of this permit the Permittee shall begin reporting electronically using NetDMR. Specific requirements regarding subscription to NetDMR and submittal of data and reports in hard copy form and for submittal using NetDMR are described below:

- Submittal of NetDMR Subscriber Agreement

On or before fifteen (15) days after the issuance of this permit, the Permittee and/or the person authorized to sign the Permittee's discharge monitoring reports ("Signatory Authority") as described in RCSA Section 22a-430-3(b)(2) shall contact the Department at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov) and initiate the NetDMR subscription process for electronic submission of Discharge Monitoring Report (DMR) information. Information on NetDMR is available on the Department's website at [www.ct.gov/deep/netdmr](http://www.ct.gov/deep/netdmr). On or before ninety (90) days after issuance of this permit the Permittee shall submit a signed and notarized copy of the *Connecticut DEEP NetDMR Subscriber Agreement* to the Department.

- Submittal of Reports Using NetDMR

Unless otherwise approved by the commissioner, on or before one-hundred and eighty (180) days after issuance of this permit, the Permittee and/or the Signatory Authority shall electronically submit DMRs required under this permit to the Department using NetDMR in satisfaction of the DMR submission requirements of Sections 8(B)(1)(a) of this permit.

DMRs shall be submitted electronically to the Department no later than the 30th day of the month following the completed reporting period. Any additional monitoring conducted in accordance with 40 CFR 136 shall be submitted to the Department as an electronic attachment to the DMR in NetDMR. Once a Permittee begins submitting reports using NetDMR, it will no longer be required to submit hard copies of DMRs to the Department. The Permittee shall also electronically file any written report of non-compliance described in Section 6 of this permit as an attachment in NetDMR. NetDMR is accessed from: <http://www.epa.gov/netdmr>.

- Submittal of NetDMR Opt-Out Requests

If the Permittee is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for electronically submitting DMRs, the commissioner may approve the submission of DMRs in hard copy form (“opt-out request”). Opt-out requests shall be submitted in writing to the Department for written approval on or before fifteen (15) days prior to the date a Permittee would be required under this permit to begin filing DMRs using NetDMR. This demonstration shall be valid for twelve (12) months from the date of the Department’s approval and shall thereupon expire. At such time, DMRs shall be submitted electronically to the Department using NetDMR unless the Permittee submits a renewed opt-out request and such request is approved by the Department.

All opt-out requests and requests for the NetDMR subscriber form should be sent to the following address or by email at [deep.netdmr@ct.gov](mailto:deep.netdmr@ct.gov):

**Attn: NetDMR Coordinator**  
**Connecticut Department of Energy and Environmental Protection**  
**79 Elm Street**  
**Hartford, CT 06106-5127**

(2) IDDE Monitoring

Any monitoring conducted pursuant to the IDDE section (Section 6(D)) of this permit shall be recorded on IDDE monitoring forms. This recording shall include the results of laboratory testing and any field testing conducted. These forms shall be included in the Annual Report appendices pursuant to subsection (A)(3)(g) above and submitted as part of the Annual Report.

(C) Records Retention

The Permittee shall keep records required by this permit for at least 5 years following its expiration or longer if requested by the commissioner in writing. Such records, including the Stormwater Management Plan, shall be available to the public at reasonable times during regular business hours.

**SECTION 9: COMPLIANCE SCHEDULE AND ADDITIONAL REQUIREMENTS**


- (A) The Permittee shall perform the actions in the approved Stormwater Management Plan in accordance with the schedules in Sections 6 and 7 of this permit.
- (B) The Permittee shall use best efforts to submit to the commissioner all documents required by Sections 6, 7 and 8 of the permit in a complete and approvable form. If the commissioner

notifies the Permittee that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and the Permittee shall correct the deficiencies and resubmit it within the time specified by the commissioner or, if no time is specified by the commissioner, within thirty days of the commissioner's notice of deficiencies. In approving any document or other action, the commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the commissioner deems necessary to carry out the purposes of this section of the permit. Nothing in this paragraph shall excuse noncompliance or delay.

- (C) Dates. The date of submission to the commissioner of any document required by the permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under the permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" as used in this section of the permit means calendar day. Any document or action which is required by the permit to be submitted or performed by a date which falls on, Saturday, Sunday, or a Connecticut or federal holiday shall be submitted or performed on or before the next day which is not a Saturday, Sunday, or Connecticut or federal holiday.
- (D) Notification of noncompliance. In the event that the Permittee becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this section of the permit or of any document required hereunder, the Permittee shall immediately notify the commissioner and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. In so notifying the commissioner, the Permittee shall state in writing the reasons for the noncompliance or delay and propose, for the review and written approval of the commissioner, dates by which compliance will be achieved, and the Permittee shall comply with any dates which may be approved in writing by the commissioner. Notification by the Permittee shall not excuse noncompliance or delay, and the commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the commissioner in writing.
- (E) Notice to commissioner of changes. Within fifteen days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under the permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- (F) Submission of documents. Any document, other than a DMR or ATMR, required to be submitted to the commissioner under the permit shall, unless otherwise specified in writing by the commissioner, be directed to:

Stormwater MS4 Permit Coordinator  
Bureau of Materials Management & Compliance Assurance  
Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

This permit is hereby issued on the *14<sup>th</sup>* day of *August*, 2017.

  
Robert Kaliszewski  
Deputy Commissioner



**WASTEWATER DISCHARGE PERMIT: DATA TRACKING AND TECHNICAL FACT SHEET**

Permittee: CITY OF STAMFORD

PERMIT, ADDRESS, AND FACILITY DATA

PERMIT #: CT0030279

APPLICATION #: 20161056

<u>Mailing Address:</u>					<u>Location Address:</u>						
Street:	888 Washington Blvd				Street:	Same					
City:	Stamford	ST:	CT	Zip:	06901	City:	Same	ST:	CT	Zip:	
Contact Name:	Tyler Theder, Regulatory Compliance				<i>DMR Contact</i>	SAME					
Phone No.:	203-977-5281				Phone No.:						
Contact E-mail:	ttheder@stamfordct.gov				DMR Contact E-mail:						

PERMIT INFORMATION

DURATION    5 YEAR X                      10 YEAR \_\_\_                      30 YEAR \_\_\_

TYPE              New \_\_\_              Reissuance \_\_\_              Modification X

CATEGORIZATION    POINT (X)              NON-POINT ( )              GIS #

NPDES (X)    PRETREAT ( )              GROUND WATER(UIC) ( )              GROUND WATER (OTHER) ( )

NPDES MAJOR(MA) \_\_\_  
NPDES SIGNIFICANT MINOR or PRETREAT SIU (SI) \_\_\_  
NPDES or PRETREATMENT MINOR (MI) X

PRETREAT SIGNIFICANT INDUS USER(SIU) \_\_\_  
PRETREAT CATEGORICAL (CIU) \_\_\_  
Note: If it's a CIU then check off SIU

POLLUTION PREVENTION MANDATE \_\_\_                      ENVIRONMENTAL EQUITY ISSUE

SIC CODE: n/a

COMPLIANCE SCHEDULE    YES X                      NO \_\_\_

POLLUTION PREVENTION \_\_\_    TREATMENT REQUIREMENT \_\_\_    WATER CONSERVATION \_\_\_

WATER QUALITY REQUIREMENT \_\_\_    REMEDIATION \_\_\_    OTHER X (Implementation of elements of the Stormwater Management Plan)

RECENT ENFORCEMENT HISTORY

Is the Permittee subject to a pending enforcement action?    Yes X    No \_\_\_



The City is currently complying with an EPA (not DEEP) Administrative Order.

**OWNERSHIP CODE**

Private  Federal  State  Municipal (town only)  Other public

DEEP STAFF ENGINEER Christopher Stone

**PERMIT FEES**

Discharge Code	DSN Number	Annual Fee
1080000	various	1456.25

**FOR NPDES DISCHARGES**

Drainage basin Code: 7000, 7403, 7404, 7405, 7406, 7407

Water Quality Standard: A, AA, B, SA, SB

**NATURE OF BUSINESS GENERATING DISCHARGE**

With a population of between 100,000 and 250,000 discharging to its storm sewer system, the City of Stamford qualifies as a Medium Municipal Separate Storm Sewer System (Medium MS4) under Phase 1 of EPA's stormwater regulations. This permit covers the entire storm sewer system for the City and includes all drainage areas that contribute to the storm sewer system. It also requires the implementation of measures by permittee for certain private activities that may have an impact on the quality of stormwater conveyed through the City's drainage system.

**PROCESS AND TREATMENT DESCRIPTION (by DSN)**

The treatment of stormwater discharges from the City's system will vary among the several hundred discharges. The treatment may range from simple catch basin sumps to advanced sediment removal structures to multi-stage sediment, nutrient and bacteria treatment systems. The Stormwater Management Plan for the City will specify which discharges will have treatment and of what kind.

**RESOURCES USED TO DRAFT PERMIT**

- Federal Effluent Limitation Guideline \_\_\_\_\_  
name of category
- Performance Standards
- Federal Development Document EPA's MS4 Permit Improvement Guide  
name of category

- Treatability Manual
- Department File Information
- Connecticut Water Quality Standards
- Anti-degradation Policy
- Coastal Management Consistency Review Form
- Other - Explain  
Recently reissued DEEP Small MS4 general permit

**BASIS FOR LIMITATIONS, STANDARDS OR CONDITIONS**

- Best Practicable Technology (BPT)
- Best Professional Judgement (See Other Comments)
- Case by Case Determination (See Other Comments)
- In order to meet in-stream water quality (See General Comments)
- Anti-degradation policy

**GENERAL COMMENTS**

Consistent with EPA's requirements for the MS4 permitting program, this permit does not include numeric effluent limits but rather requires non-numeric effluent limits instituted in the form of control measures implemented to the Maximum Extent Practicable. Pursuant to EPA permitting criteria, these measures are developed using Best Professional Judgment. There are also measures in the permit that address discharges to High Quality Waters and Impaired Waters to meet the requirements of the Anti-degradation Implementation Policy in the CT Water Quality Standards and the TMDL programs, respectively. There is extensive monitoring included in the permit that may be used to evaluate water quality, measure control measure effectiveness, and address potential impacts to water bodies in the City as the program progresses.

**EXISTING PERMIT**

Stamford's MS4 permit requires the City to develop a Stormwater Management Plan (Plan). The Plan includes requirements regarding how the City operates and maintains its stormwater infrastructure. A particular focus is addressing discharges to waters listed by DEEP as impaired, waters for which Total Maximum Daily Load (TMDL) analyses have been developed, and those waters designated by DEEP as high quality waters. The Plan also requires the City to demonstrate legal authority to implement certain elements of the permit. The Plan addresses these issues through the use of "control measures" within one of five categories. These categories include: public education and involvement, which includes measures for public involvement and outreach; pollution prevention, including spill prevention, pesticide/herbicide/fertilizer (PHF) practices, salt storage practices and evaluating discharges to the MS4; land disturbance and development, including E&S control guidance and references to the DEEP Stormwater Quality Manual and E&S Guidelines as well as measures addressing impervious cover and encouraging Low Impact

Development (LID); illicit discharge detection and elimination (IDDE), including a specific protocol for conducting these activities; and infrastructure operations and maintenance, including detailed requirements for scheduling, tracking and inspections for these measures.

The current permit includes a monitoring program requiring the sampling of 10 stream locations four times per year. Sampling also includes in-stream dry- and wet-weather sampling as well as wet weather sampling of all City-owned outfalls twice during the permit term. The purpose of the monitoring program is to determine where and when additional control measures may be required to address impacts to water quality with particular priority to impaired or high quality waters.

Additionally, the City is required to submit an annual report summarizing their progress with the various requirements of the permit from year to year. A detailed list of requirements for these reports is included in the permit.

### **PROPOSED MODIFICATION**

The modifications proposed by the City include: changes to the timelines for implementing certain elements of the permit; the addition of “flows from firefighting activities” as authorized non-stormwater discharges; modification of the schedule and protocol for the City’s street sweeping program; a stormwater infrastructure retrofit program; and elimination of in-stream monitoring in favor of outfall monitoring that focuses on impaired waters and identifying outfalls that may be contributing to those impairments. The complete text of these modifications is included in the proposed permit modification available at [www.ct.gov/deep/stormwater](http://www.ct.gov/deep/stormwater).

These modifications are being requested by the City to provide a closer parity with the General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (Small MS4 permit) that covers 121 towns in the state, including the cities of Hartford, New Haven and Bridgeport. The modifications for the timelines, authorized non-stormwater discharges, street sweeping and monitoring are alterations of existing requirements in Stamford’s MS4 permit. The Commissioner agrees that it is appropriate to change these to be more consistent with the Small MS4 permit and the requirements for cities with stormwater infrastructure of similar size and scope to Stamford. The Commissioner also believes the modifications are justified since the conditions under which the permit was originally reissued have changed substantially since reissuance. The basis of this rationale is included in the response to comments below. The retrofit program is a new addition to Stamford’s MS4 permit that is also included in the Small MS4 permit. The Commissioner believes that this program is vital to Department’s efforts to reduce impervious cover throughout the state and helps address the reduction of pollutants contributing to impaired waters in the state. While Stamford is a Phase 1 Medium MS4 rather than a Phase 2 Small MS4, the permit modifications still meet, and actually exceed, the requirements of the EPA Phase 1 Rule while providing parity with the MS4 programs of Small MS4s in the state.

### **RESPONSE TO COMMENTS RECEIVED FROM NOTICE OF TENTATIVE DECISION**

The following eight comments were received from EPA Region 1 during the comment period for the Notice of Tentative Decision to Approve Modification of an NPDES permit. These were the only comments received during the comment period. The Department response to each comment is included.

1. **Comment: Section 6(A)(3)(a)(i)**: The proposed modification would extend the deadline requiring adequate legal authority for the City’s construction and development program by approximately 35 months. It is not appropriate to modify deadlines in a final permit after the requirement was to be completed.

**Response:** Stamford submitted draft language for the legal authority requirements in the permit’s Land Disturbance and Development program with their first Annual Report under the current permit. During the development of this language the City discovered that nowhere in the Stamford’s land use ordinances and regulations was there a stormwater construction design manual. In drafting the permit DEEP assumed that the

legal authorities required for the permit would be accomplished in-house (i.e. by City personnel) and that the current regulatory framework was adequate to implement these additional authorities. The determination that a drainage manual would be required to properly implement this program was only discovered after the permit was issued. As this is beyond the in-house staff's abilities, it requires the City to bid and hire a consultant to develop a manual and incorporate language into the City's land use regulations. It also entails an addition of approximately \$100,000 to Stamford's MS4 budget. In recognition that the circumstances under which this section of the permit was drafted had changed significantly, and in the interest of ensuring that the City's land use regulations meet an acceptable standard, we believe the extension of the timeline for developing these standards is justified and meets the criteria for modification under 22a-430-4(1)(4)(A)(xxiii).

2. Comment: Section 6(A)(3)(a)(iv): The proposed modification would extend the deadline requiring implementation of the City's construction and development program by approximately 17 months. It is not appropriate to modify deadlines in a final permit after the requirement was to be completed.

Response: The implementation of the Land Disturbance and Development program measures developed pursuant to the legal authorities required in subsection (a)(i), as outlined above, is not possible until those legal authorities are actually enacted. Consequently, by the same rationale as the previous comment, the Department maintains that it is reasonable and allowable to also extend the timeline for implementation of the measures for which these legal authorities were developed.

3. Comment: Section 6(A)(5)(d)(i): The proposed modification would significantly decrease the amount and frequency of street sweeping conducted by the City. This modification could result in an increased pollutant load in stormwater. It is not appropriate to modify the requirements of a final permit that would allow for an increased pollutant load to receiving waterbodies.

Response: We do not believe the reduction in the frequency of the City's street sweeping program is "backsliding" for two reasons. First, studies have indicated that changes in the frequency of street sweeping do not result in consistently demonstrable improvements in water quality (e.g. USGS Scientific Investigations Report, 2007-5156 – W. R. Selbig, R. T. Bannerman). Second, we believe that the more targeted approach included in the proposed modification will be more effective than prescriptive street sweeping schedules. The approach outlined in the proposed modification requires the City to conduct sweeping beyond the basic requirement based on regular street inspections to determine areas that may benefit from a targeted increase in sweeping frequency "based upon surface inspections, catch basin cleaning or inspection results, land use, winter road deicing and/or sand application, impaired or TMDL waters or other relevant factors as determined by the permittee". This approach allows a more efficient use of City resources to accomplish equivalent environmental results.

4. Comment: Section 6(A)(5)(d)(ii): The proposed modification would significantly decrease the amount and frequency of parking lot sweeping conducted by the City. This modification could result in an increased pollutant load in stormwater. It is not appropriate to modify the requirements of a final permit that would allow for an increased pollutant load to receiving waterbodies.

Response: As stated in the response to the previous comment, studies do not support the contention that monthly sweeping schedules will be any more protective of water quality than quarterly. For this reason, we do not consider this provision to be backsliding.

5. Comment: Section 6(B)(4)(b): The proposed modification would extend the deadline for mapping requirements by approximately 30 months. It is not appropriate to modify deadlines in a final permit after the requirement was to be completed. In addition, the mapping task should have been completed with City's permit application and additional time to complete this task is not warranted.

Response: As outlined in the opening paragraphs of our response, above, the RCSA allows a permit to be

modified to include standards and conditions that are less stringent than the previous permit if “the circumstances on which the previous permit was based have changed...”. In the case of outfall mapping, the previous permit issued in 2005 required the City to map all outfalls of 15-inch diameter and greater. This resulted in an inventory of approximately ninety-two (92) outfalls located by the City. The permit reissued in 2013 removed the size limitation and required mapping all outfalls. While DEEP and the City anticipated an increase in the number of outfalls to be mapped, we did not anticipate the eventual magnitude of this increase. The City has not yet completed identifying all outfalls, but the inventory currently numbers approximately 850 outfalls. We believe this constitutes a significant change in the circumstances on which the permit was based and warrants an increase in the allowance for the time to map these outfalls.

6. Comment: Section 6(D)(4)(c): The proposed modification would extend the mapping requirements to facilitate the City's Illicit Discharge Detection and Elimination Program (IDDP) program by approximately 17 months. It is not appropriate to modify deadlines in a final permit after the requirement was to be completed.

Response: For the same reasons as the previous response, we believe the modification is warranted because the significant increase in the number of mapped outfalls constitutes a significant change in circumstances on which the permit was based.

7. Comment: Section 7(D): The proposed modification would remove all monitoring requirements used to assess stormwater management program implementation. Phase I MS4 permits must be consistent with all applicable regulations, including the requirement for the permittee to have a monitoring program.

Response: This section of the permit addresses in-stream dry- and wet-weather monitoring as opposed to outfall monitoring. While the data potentially generated by this program could possibly present us with an approximation of the stream health of the waterbodies monitored, it would not be valid as a measure of the City's stormwater effluent quality or its potential impact on the water quality of the stream. There are too many other potential sources of stormwater pollution to these waterbodies to assess what portion may be attributable to the City's MS4. For this same reason, it would also not serve as a valid assessment of Stamford's stormwater management program implementation. We therefore believe that the elimination of this program has no impact on the ability of the City to measure the effectiveness of their stormwater management program and, in fact, allows them to better focus their monitoring resources on outfall monitoring as a better measure of the effectiveness of that program.

8. Comment: Section 7(E): The proposed modification would greatly reduce the wet weather outfall monitoring conducted by the City. This would potentially undermine the City's IDDE program, increasing the pollutant load delivered to receiving waterbodies. It is not appropriate to modify the requirements of a final permit that would allow for an increased pollutant load to receiving waterbodies.

Response: To address EPA's concerns about the reduction of wet weather sampling in the proposed modification, a new impaired waters outfall investigation and monitoring program is now proposed that is nearly identical to the outfall monitoring program in the Small MS4 General Permit. This will provide the parity with the Small MS4 General Permit that the City seeks while still meeting Phase I MS4 monitoring requirements. It is also a more achievable means of addressing the issue of the greatly expanded scope of sampling identified in the response to comments 5 and 6 in a manner that helps the City to better address the potential water quality impacts of its MS4.

## Appendix B

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### Pollution Prevention Team Members

Pollution Prevention Team Members

Stormwater Management Plan  
Stamford, Connecticut

Name	Title	Department	e-mail	Phone
Mark McGrath	Director of Operations	Operations	<a href="mailto:MMcGrath1@StamfordCT.gov">MMcGrath1@StamfordCT.gov</a>	
Thomas Turk	Traffic & Road Maintenance Supervisor	Operations	<a href="mailto:tturk@stamfordct.gov">tturk@stamfordct.gov</a>	203-977-5919
Tyler Theder	Regulatory Compliance & Administrative Officer	Operations	<a href="mailto:ttheder@stamfordct.gov">ttheder@stamfordct.gov</a>	203-977-5281
Ralph Blessing	Land Use Bureau Chief	Land Use Bureau	<a href="mailto:rblessing@stamfordct.gov">rblessing@stamfordct.gov</a>	203-977-4714
James Lunney	Zoning Enforcement Officer	Land Use Bureau - Zoning Office	<a href="mailto:jlunney@stamfordct.gov">jlunney@stamfordct.gov</a>	203-977-5944
Rick Talamelli	Environmental Planner	Land Use Bureau - Environmental Planning Board (EPB)	<a href="mailto:rtalamelli@stamfordct.gov">rtalamelli@stamfordct.gov</a>	203-977-4965
Lou Casolo	City Engineer	Engineering	<a href="mailto:lcasolo@stamfordct.gov">lcasolo@stamfordct.gov</a>	203-977-5796
Cindy Barber	GIS Coordinator	Information Technology	<a href="mailto:CBarber@StamfordCT.gov">CBarber@StamfordCT.gov</a>	203-977-5360
Deborah Miller	Acting Director of Environmental Health Inspections	Health Department	<a href="mailto:dmiller@stamfordct.gov">dmiller@stamfordct.gov</a>	203-977-4363

## Appendix C

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### Selected Stormwater Management Public Information



## Helpful Information

Connecticut Department of Energy and Environmental Protection (DEEP)

*Stormwater Management:*

[www.ct.gov/deep/cwp/view.asp?a=2721&q=325702&depNav\\_GID=1654](http://www.ct.gov/deep/cwp/view.asp?a=2721&q=325702&depNav_GID=1654)

US Environmental Protection Agency (EPA)

*Greening EPA*

*Stormwater Management:*

[www.epa.gov/oaintmt/stormwater/index.htm](http://www.epa.gov/oaintmt/stormwater/index.htm)

US EPA National Pollutant Discharge Elimination System (NPDES)

*Stormwater Program:*

[http://cfpub.epa.gov/npdes/home.cfm?program\\_id=6](http://cfpub.epa.gov/npdes/home.cfm?program_id=6)



*This informational pamphlet provided to you by:*

### The City of Stamford

**Michael A. Pavia, Mayor**

**Ernie Orgera, Director of Operations**

[EOrgera@ci.stamford.ct.us](mailto:EOrgera@ci.stamford.ct.us)

**Karen Cammarota, Grants Officer**

[KCammarota@ci.stamford.ct.us](mailto:KCammarota@ci.stamford.ct.us)

**Thomas Turk, MS4 Permitting**

[TTurk@ci.stamford.ct.us](mailto:TTurk@ci.stamford.ct.us)

**Stamford Government Center**

888 Washington Boulevard

Stamford, Connecticut

203-977-4140

[www.ci.stamford.ct.us/](http://www.ci.stamford.ct.us/)

*The City That Works!*

The City of Stamford

**Preventing  
Stormwater  
Pollution**

**& You Be Part of the Solution**

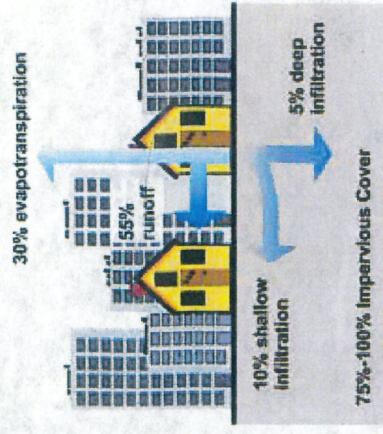
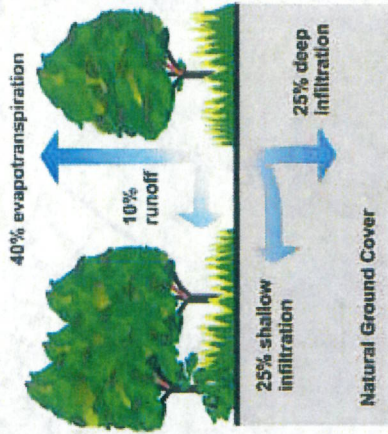
**CDM  
Smith**

Printing and  
graphics  
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## Preventing Stormwater Pollution

### What is Stormwater Runoff?

Stormwater runoff occurs when precipitation from rain or snow melt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.



Impervious pavement



Porous pavement

## Be Part of the Solution

### Easy-to-follow Guidelines

- Never dump anything down storm drains or in streams
- Pick up after your pet
- Check your car for leaks and recycle motor oil
- Wash your car on your lawn or take it to a car wash
- Sweep driveways sidewalks and gutters instead of using the garden hose
- Use fertilizers sparingly
- Consider a rain garden or rain barrel for roof runoff
- Direct downspouts away from paved surfaces
- Use less toxic pesticides on your lawn, garden and in your home and always read label instructions for proper use
- Vegetate bare spots in your yard
- Have your septic tank pumped and the system inspected regularly
- Compost kitchen and yard waste

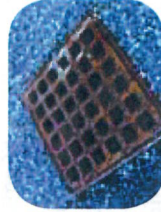


- Nutrients from fertilizers
- Oil and grease from cars
- Sediment from construction



- Soaps from car washing
- Sand from deicing
- Pet waste

### What are the Effects of Stormwater Pollution?



- Stormwater runoff enters drainage systems and streams, bringing with it debris and pollutants.



- Debris such as garbage, dirt, and yard clippings can block catch basins, pipes and streams, causing flooding.

- Polluted water can affect drinking water sources, raising treatment costs and threatening human health.



- Excess nutrients from fertilizers and pet wastes can lead to algae blooms which threaten aquatic life.





## Help Prevent Stormwater Pollution

- Don't dump anything into catch basins.
- Keep property clear of trash and debris.
- Keep dumpster areas clean.
- Provide trash receptacles for customers.
- Dispose of wash water properly.
- Don't wash vehicles outside on paved surfaces.

For more information, go to:  
[www.stamfordct.gov/stormwater-management](http://www.stamfordct.gov/stormwater-management)

## REGULATION OF MUNICIPAL SEPARATE STORM SEWER SYSTEM

Charter and Code of the City of Stamford:  
Sec 201-2. Definitions: Pollutant:

*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: nonhazardous 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.*

**Fines (Sec. 201-12 (B)):**

**First Violation: \$100**

**Second Violation: \$200**

**Third Violation: \$250**

*Note: Each violation shall be a separate and distinct offense.*



### Stormwater Management

90 Magee Avenue  
Stamford, CT 06901  
Phone: 203.977.5281

[www.stamfordct.gov/stormwater-management](http://www.stamfordct.gov/stormwater-management)

# Stormwater Management

A Practical Guide to Regulatory Compliance for Commercial, Industrial and Institutional Facilities



City of Stamford  
Connecticut

# What is Stormwater Pollution?

As stormwater (rain or snowmelt) flows over impervious surfaces such as driveways, roofs, sidewalks and streets, it picks up and carries pollutants such as motor oil, fertilizers, pesticides, trash and other potentially environmentally harmful materials into storm drains. From there, this untreated water flows directly into local rivers and the Long Island Sound.



**Report Illegal Dumping. Dumping any material into a catch basin is illegal. Penalties for dumping include fines and the costs of abatement. If you observe someone dumping, immediately report it to the Citizen Service center at 203-977-4140.**

## Doesn't Stamford treat water before returning it to the environment?

The City of Stamford has two separate drainage systems; sanitary and stormwater. Sanitary water, which typically comes from drains located inside buildings, is thoroughly treated before being returned to the environment. Rainwater, snowmelt, and anything else collected by — or dumped into — a storm drain flows untreated into the Long Island Sound.

## What can property owners do to minimize stormwater pollution?

Property owners are responsible for all pollutants leaving their property. There are a number of simple steps that can be taken to help eliminate stormwater pollution, including:

- Annually clean and maintain all private catch basins (not located on a public street) to remove pollutants, ensure proper performance and reduce the risk of flooding. Local sewer and drain contractors can help you.
- Do not dump mop or wash water onto paved surfaces. Wash waters contain harmful chemicals and solvents that can damage waterways; instead, dispose of this water into a mop sink, floor drain or toilet so it can be treated.
- Wash garbage cans and floor mats in a mop sink, which drains to the sanitary sewer system.
- Sweep outdoor areas daily for trash and litter control and do not dispose of trash into storm drains basins.
- Provide trash and cigarette butt receptacles in highly visible locations, particularly in employee break areas.
- Keep your dumpster areas clean and lids closed. Make sure the clean-out plug is properly secured to prevent leaking.
- Do not wash vehicles outside on paved surfaces; instead use a carwash to clean cars and trucks.

# How to dispose of Hazardous Waste

Hazardous wastes — including chemicals, automotive fluids, paints, and commercial wastes — should never be dumped into catch basins. Visit [www.stamfordct.gov/recycling-sanitation](http://www.stamfordct.gov/recycling-sanitation) to learn how to dispose hazardous wastes properly.



## Reminders for Restaurants & Food Establishments:

- Maintain all grease traps in your establishment in accordance with the City of Stamford Health Department and Water Pollution Control Authority (WPCA) regulations.
- Dispose of cooking oil and grease properly either in a receptacle designed to contain grease or by hiring a waste hauler.
- Do not pour oil and grease into sinks, floor drains, catch basins, on onto the ground.
- Dispose of all waste wash water in a janitorial sink, floor drain or toilet that is properly connected to the sewer system.
- Never pour wash water onto a parking lot, alleyway, sidewalk, or street, as these areas ultimately drain to local waterways.



## Helpful Information

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Connecticut Department of Energy and  
Environmental Protection (DEEP)

*Stormwater Management:*

[www.ct.gov/deep/cwp/view.asp?a=2721&q=325702&deNav\\_GID=1654](http://www.ct.gov/deep/cwp/view.asp?a=2721&q=325702&deNav_GID=1654)

US Environmental Protection Agency (EPA)  
Greening EPA

*Stormwater Management:*

[www.epa.gov/oaintmnt/stormwater/index.htm](http://www.epa.gov/oaintmnt/stormwater/index.htm)

US EPA National Pollutant Discharge Elimination  
System (NPDES)

*Stormwater Program:*

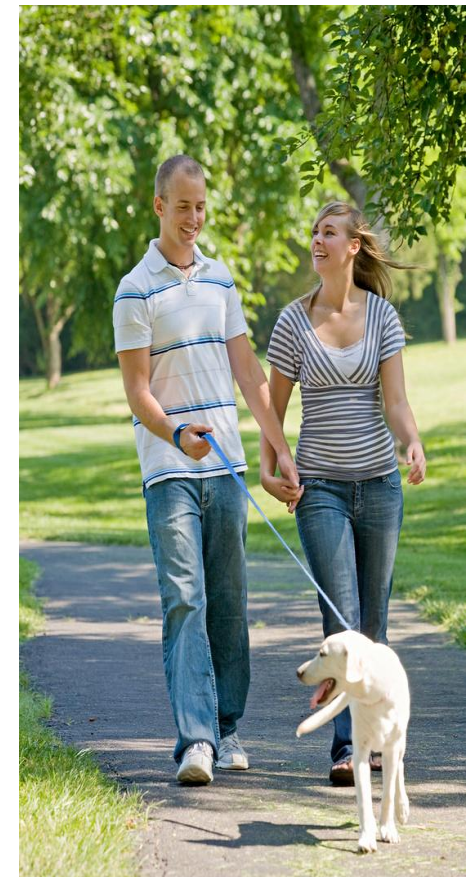
[http://cfpun.epa.gov/npdes/home.cfm?program\\_id=6](http://cfpun.epa.gov/npdes/home.cfm?program_id=6)

City of Stamford Stormwater Management:

<http://www.stamfordct.gov/stormwater-management>



## Preventing Stormwater Pollution



*This informational pamphlet provided to you by:*

## The City of Stamford

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Stamford, Connecticut  
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*The City That Works!*

## Preventing Stormwater Pollutions



### What is Stormwater

Stormwater runoff occurs when precipitation from rain or snow melt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.



### Beware of Dog Waste:

Dog waste does not make a good fertilizer. It is actually toxic to your lawn, causing burns and unsightly discoloring.

More importantly, it has been estimated that a single gram of dog feces can contain 23 million fecal coliform bacteria, which are known to cause cramps, diarrhea, intestinal illness, and serious kidney disorders in humans.

The Environmental Protection Agency (EPA) estimates that two or three days' worth of droppings from a population of about 100 dogs would contribute enough bacteria to temporarily close a bay, and all watershed areas within 20 miles of it, to swimming and shellfishing.

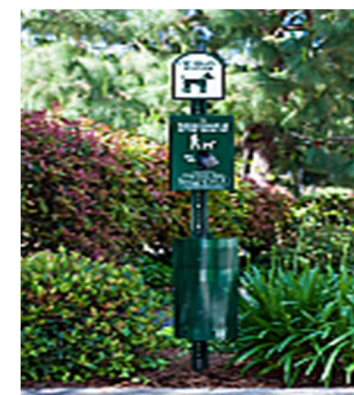
Dog feces are one of the most common carriers of the following diseases:

- Heartworms
- Whipworms
- Hookworms
- Roundworms
- Tapeworms
- Parvo
- Corona
- Giardiasis
- Salmonellosis
- Cryptosporidiosis
- Campylobacteriosis

Children, puppies and kittens are most susceptible to pet-borne illnesses because they have weaker immune systems than adults.

### Be Part of the Solution:

- Never Dump anything down storm drains or in streams
- Pick up loose trash
- Pick up after your pet
- Utilize pet waste stations



***The most responsible thing pet owners can do for their family, community and environment is to make sure their pets are picked up after.***

***Penalty for violation of City Charter Sec. 111-7 shall be subject to a fine of \$75.00 for either public or private property.***

## Test Your Storm Drain IQ!

- Which of the following is safe to pour into a storm drain?
  - Motor Oil
  - Medication
  - Paint
  - None of the above
- Storm water flows to...
  - Water Treatment plant
  - Sanitary Sewer System
  - Oceans, Rivers, and Lakes
  - None of the above
- Washing your car with soap in the driveway may be harmful to aquatic life.  
True  
False
- Raking leaves and grass clippings into storm drains is a proper disposal method.  
True  
False
- Which of these do impact water quality?
  - Septic tanks
  - Road run-off
  - Fertilizers
  - All of the above
- Flushing organic matter down a storm sewer (leaves, sticks, animal droppings) results in which of the following?
  - Algae "blooms"
  - Closure of downstream beaches due to high coliform counts
  - Fish kills due to the depletion of dissolved oxygen caused by the decomposition of organic matter
  - All of the above

Answers: 1.D 2.C 3.True 4.False 5.D 6.D

## How You Can Help

- Never pour household hazardous waste materials, such as motor oil, paints, solvents and other chemicals down the drain, onto sidewalks or into catch basins. Take these materials to a hazardous waste materials collection center or round-up event.
- Use pesticides, herbicides, and fertilizers according to the label instructions. Remember not to apply them before heavy rain and avoid over watering your plants or lawn.
- Clear debris from catch basins near your home or business.
- Never put yard waste such as grass clippings, tree trimmings, and leaves into a catch basin. This organic material can be composted and used for fertilizer around the yard.
- Do not dispose of unused medication in either the storm drain or sanitary sewer system. For more information about disposal go to:  
[http://www.whitehousedrugpolicy.gov/publications/pdf/prescrip\\_disposal.pdf](http://www.whitehousedrugpolicy.gov/publications/pdf/prescrip_disposal.pdf).



Information provided by the  
Stamford WPCA  
111 Harbor View Avenue  
Stamford, CT 06902  
203-977-4964

Brochure created by Elisabeth Smith  
for her Girl Scout Gold Award; 2011

  
girl scouts  
of connecticut

## What Is Your Storm Drain System IQ?



What's wrong with this picture?

## What Is A Storm Drain?

Storm drain systems are designed to drain excess rain from paved streets, parking lots, sidewalks, and roofs. When rainfall is heavy, streets, parking lots, and other paved and impervious surfaces can flood. In addition to the water falling directly on these surfaces, gutters also discharge large amounts of water into the street. Flooding can pose a hazard to homes and businesses, which is why storm drains are installed. Catch basins, which collect the rain water and bring it into the storm drain, are frequently located on either side of a street, at a low point in the roadway where water would naturally collect. In Stamford, there are over 15,000 catch basins.

## Where Does the Water Go?

Water enters the catch basin through the grate on top, and then enters into a system of storm water pipes. The water then flows through the pipes, and is conveyed to an outlet, which is usually a lake, ocean, or other major body of water. In Stamford, the majority of the water ends up in Long Island Sound.

## Is the Water Treated?

No, water runoff that enters the storm drain system is not treated. It is not commingled with the sanitary sewer system and does not receive treatment at the wastewater treatment plant operated by the Water Pollution Control Authority. The sheer volume of water runoff is too great to be treated.



## Harmful Items Often Dumped

- Fertilizers-affect aquatic life by mutating animal and fish genes, creating deformities.
- Pesticides/ Herbicides- also cause mutations in animals or can cause death.
- Motor Oil- can poison animals or become attached to their skin/feathers
- Paint- Toxic to animals and people.
- Antifreeze- a highly toxic chemical that is poisonous to people as well as fish, birds and pets.
- Medication- creates mutations in animals if ingested and can enter the food chain.
- Litter- pollutes the water; plastic bags can be ingested by fish and turtles.
- Construction Debris- also a major pollutant
- Household Cleaning Products- another type of toxin for animals
- Cigarette Butts- pollutant that can be ingested by aquatic life and enter the food chain.



## Appendix D

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### Stormwater Management Ordinance

### ARTICLE III. 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-storm water 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 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 6, 2013.

#### Sec. 201-2. Definitions.

For the purposes of this Ordinance, the following shall mean:

**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 Storm Water 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-storm water 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) Storm Water 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-Storm Water Discharge.** Any discharge to the storm drain system that is not composed entirely of storm water.

**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 6, 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 storm water 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.

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

Stormwater Pollution Prevention Plan. A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

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

#### Sec. 102-3. 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. 102-4. 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, acting in the beneficial interest of or in the employ thereof.

#### Sec. 102-5. 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. 102-6. 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. 102-7. 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 storm water.

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-storm water 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. 102-8. 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. 102-9. Industrial or Construction Activity Discharges.

Any person subject to an industrial or construction activity NPDES storm water 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. 102-10. Monitoring of Discharges.

##### A. Applicability.

This Section applies to all Premises that have storm water.

B. Access to Premises.

(a) The Authorized Enforcement Agency shall be permitted to enter and inspect Premises to regulation under this Ordinance 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 representatives of the

(b) 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 storm water, and the performance of any additional duties as defined by state and federal law.

(c) 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's storm water discharge.

(d) The Authorized Enforcement Agency has the right to require the discharger to install monitoring equipment as necessary. 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 to ensure their accuracy.

(e) 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.

(f) 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.

(g) 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. 102-11. 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 storm water, 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. 102-12. 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 storm water 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	\$ 250.00
Second violation	\$ 500.00
Third violation	\$ 750.00

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, with prior advice and consent of the Director of Operations, 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 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 Statutes 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) That payments shall be submitted to the Regulatory Compliance and Administrative Officer by check or money order made payable to The City of Stamford.

(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 in person or by mail to the City of Stamford. Checks or money orders should be made payable to the City of Stamford and mailed to Cashiering & Permitting, City of Stamford, P.O. Box 10152, Stamford, CT 06904-2152.

E. 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.

F. 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.

G. 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.

H. 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.

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

J. 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.

K. 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.

L. 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. 102-13: 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. 102-14: 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 Statutes, in the Superior Court, which shall entitle such person to a hearing in accordance with the rules of the Superior Court.

#### Sec. 102-15. 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. 102-16. 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. 102-17. 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. 102-18. 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, and creek cleanup.

Sec. 102-19. 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. 102-22. 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.

## Appendix E

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### Lists of Toxic and Hazardous Substances

Table II - Organic Toxic Substances in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS)

Volatiles

- 1 acrolein
- 2 acrylonitrile
- 3 benzene
- 5 bromoform
- 6 carbon tetrachloride
- 7 chlorobenzene
- 8 chlorodibromomethane
- 9 chloroethane
- 10 2-chloroethylvinyl ether
- 11 chloroform
- 12 dichlorobromomethane
- 14 1,1-dichloroethane
- 15 1,2-dichloroethane
- 16 1,1-dichloroethylene
- 17 1,2-dichloropropane
- 18 1,2-dichloropropylene
- 19 ethylbenzene
- 20 methylbromide
- 21 methylchloride
- 22 methylene chloride
- 23 1,1,2,2-tetrachloroethane
- 24 tetrachloroethylene
- 25 toluene
- 26 1,2-trans-dichloroethylene
- 27 1,1,1-trichloroethane
- 28 1,1,2-trichloroethane
- 29 trichloroethylene 31 vinyl chloride

Acid Compounds

- 1 2-chlorophenol
- 2 2,4-dichlorophenol
- 3 2,4-dimethylphenol
- 4 4,6-dinitro-o-cresol
- 5 2,4-dinitrophenol
- 6 2-nitrophenol
- 7 4-nitrophenol

- 8 p-chloro-m-cresol
- 9 pentachlorophenol
- 10 phenol
- 11 2,4,6-trichlorophenol

Table II - Organic Toxic Substances in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS) -

Base/Neutral

- 1 acenaphthene
- 2 acenaphthylene
- 3 anthracene
- 4 benzidine
- 5 benzo(a)anthracene
- 6 benzo(a)pyrene
- 7 3,4-benzofluoranthene
- 8 benzo(ghi)perylene
- 9 benzo(k)fluoranthene
- 10 bis(2-chloroethoxy)methane
- 11 bis(2-chloroethyl)ether
- 12 bis(2-chloroisopropyl)ether
- 13 bis(2-ethylhexyl)phthalate
- 14 4-bromophenylphenyl ether
- 15 butylbenzyl phthalate
- 16 2-chloronaphthalene
- 17 4-chlorophenyl phenyl ether
- 18 chrysene
- 19 dibenzo(a,H)anthracene
- 20 1,2-dichlorobenzene
- 21 1,3-dichlorobenzene
- 22 1,4-dichlorobenzene
- 23 3,3-dichlorobenzidine
- 24 diethyl phthalate
- 25 dimethyl phthalate
- 26 di-n-butyl phthalate
- 27 2,4-dinitrotoluene
- 28 2,6-dinitrotoluene
- 29 di-n-octyl phthalate
- 30 1,2-diphenylhydrazine (as azobenzene)
- 31 fluroranthene
- 32 fluorene

- 33 hexachlorobenzene
- 34 hexachlorobutadiene
- 35 hexachlorocyclopentadiene
- 36 hexachloroethane
- 37 indeno(1,2,3-cd)pyrene
- 38 isophorone
- 39 naphthalene
- 40 nitrobenzene
- 41 N-nitrosodimethylamine
- 42 N-nitrosodi-n-propylamine
- 43 N-nitrosodiphenylamine
- 44 phenanthrene
- 45 pyrene
- 46 1,2,4-trichlorobenzene

Table II - Organic Toxic Substances in Each of Four Fractions in Analysis by Gas Chromatography/Mass Spectroscopy (GS/MS) -

Pesticides

- 1 aldrin
- 2 alpha-BHC
- 3 beta-BHC
- 4 gamma-BHC
- 5 delta-BHC
- 6 chlordane
- 7 4,4-DDT
- 8 4,4-DDE
- 9 4,4-DDD
- 10 dieldrin
- 11 alpha-endosulfan
- 12 beta-endosulfan
- 13 endosulfan sulfate
- 14 endrin
- 15 endrin aldehyde
- 16 heptachlor
- 17 heptachlor epoxide
- 18 PCB-1242
- 19 PCB-1254
- 20 PCB-1221
- 21 PCB-1232
- 22 PCB-1248
- 23 1260



- 24 PCB-1016
- 25 toxaphene

Table III - Other Toxic Substances: Metals, Cyanide, and Total Phenols

- 1 Antimony, Total
- 2 Arsenic, Total
- 3 Beryllium, Total
- 4 Cadmium, Total
- 5 Chromium, Total
- 6 Chromium, Hexavalent
- 7 Copper, Total
- 8 Lead, Total
- 9 Mercury, Total
- 10 Nickel, Total
- 11 Selenium, Total
- 12 Silver, Total
- 13 Thallium, Total
- 14 Zinc, Total
- 15 Cyanide, Total
- 16 Cyanide, Amenable
- 17 Phenols, Total
- Titanium, Total

Table V - Other Toxic Substances and Hazardous Substances

Toxic Substances

- 1 Asbestos

Hazardous Substances

- 1 Acetaldehyde
- 2 Allyl alcohol
- 3 Allyl chloride
- 4 Amyl acetate
- 5 Aniline
- 6 Benzotrile
- 7 Benzyl chloride
- 8 Benzyl chloride
- 9 Butyl acetate
- 10 Butylamine

- 11 Captan
- 12 Carbaryl
- 13 Carbofuran
- 14 Carbon disulfide
- 15 Chlorpyrifos
- 16 Coumaphos
- 17 Cresol
- 18 Crotonaldehyde
- 19 Cyclohexane
- 20 2,4-Dichlorophenoxy (acetic acid)
- 21 Diazinon
- 22 Dicamba
- 23 Dichlobenil
- 24 Dichlone
- 25 2,2-Dichloropropionic acid
- 26 Dichlorvos
- 27 Diethyl amine
- 28 Dimethyl amine
- 29 Dinitrobenzene
- 30 Diquat
- 31 Disulfoton
- 32 Diuron
- 33 Epichlorohydrin
- 34 Ethanolamine
- 35 Ethion
- 36 Ethylene diamine
- 37 Ethylene dibromide
- 38 Formaldehyde
- 39 Furfural
- 40 Guthion
- 41 Isoprene
- 42 Isopropanolamine
- 43 Kelthane
- 44 Kepone
- 45 Malathion
- 46 Mercaptodimethur
- 47 Methoxychlor
- 48 Methyl mercaptan
- 49 Methyl methacrylate
- 50 Methyl parathion
- 51 Mevinphos
- 52 Mexacarbate

TABLE V - Other Toxic Substances and Hazardous Substances -  
Continued

- 53 Monoethyl amine
- 54 Monomethyl amine
- 55 Naled
- 56 Napthenic acid
- 57 Nitrotoluene
- 58 Parathion
- 59 Phenolsulfanate
- 60 Phosgene
- 61 Propargite
- 62 Propylene oxide
- 63 Pyrethrins
- 64 Quinoline
- 65 Resorcinol
- 66 Strontium
- 67 Strychnine
- 68 Styrene
- 69 2,4,5-T (2,4,5-Trichlorophenoxy acetic acid)
- 70 TDE (Tetrachlorodiphenylethane)
- 71 2,4,5-TP
- 72 Trichlorofan
- 73 Triethylamine
- 74 Trimethylamine
- 75 Uranium
- 76 Vanadium
- 77 Vinyl acetate
- 78 Xylene
- 79 Xylenol
- 80 Zirconium

Appendix D

Other Toxic Substances

- 1 Acenaphthene
- 2 Acrolein
- 3 Acrylonitrile
- 4 Aldrin/Dieldrin
- 5 Antimony and compounds\*

- 6 Arsenic and compounds
- 7 Asbestos
- 8 Benzene
- 9 Benzidine
- 10 Beryllium and compounds
- 11 Cadmium and compounds
- 12 Carbon tetrachloride
- 13 Chlordane (technical mixture and metabolites)
- 14 Chlorinated benzenes (other than dichlorobenzenes)
- 15 Chlorinated ethanes (including 1,2-dichloroethane, 1,1,1-trichloroethane, and hexachloroethane)
- 16 Chloroalkyl ethers (chloromethyl, chloroethyl, and mixed ethers)
- 17 Chlorinated naphthalene
- 18 Chlorinated phenols (other than those listed elsewhere; includes trichlorophenols and chlorinated cresols)
- 19 Chloroform
- 20 2-chlorophenol
- 21 Chromium and compounds
- 22 Copper and compounds
- 23 Cyanides
- 24 DDT and metabolites
- 25 Dichlorobenzenes (1,2-1,3-, and 1,4-dichlorobenzenes)
- 26 Dichlorobenzidine
- 27 Dichloroethylenes (1,1-and 1,2-dichloroethylene)
- 28 2,4-dichlorophenol
- 29 Dichloropropane and dichloropropene
- 30 2,4-dimethylphenol
- 31 Dinitrotoluene
- 32 Diphenylhydrazine
- 33 Endosulfan and metabolites
- 34 Endrin and metabolites
- 35 Ethylbenzene
- 36 Fluoranthene
- 37 Haloethers (other than those listed elsewhere; includes chlorophenylphenyl ethers, bromophenylphenyl ether, bis(dichloroisopropyl) ether, bis-(chloroethoxy) methane and polychlorinated diphenyl ethers)
- 38 Halomethanes (other than those listed elsewhere; includes methylene chloride, methylchloride, methylbromide, bromoform, dichlorobromomethane, trichlorofluoromethane, dichlorodifluoromethane)
- 39 Heptachlor and metabolites
- 40 Hexachlorobutadiene
- 41 Hexachlorocyclohexane (all isomers)

- 42 Hexachlorocyclopentadiene
- 43 Isophorone
- 44 Lead and compounds
- 45 Mercury and compounds
- 46 Naphthalene
- 47 Nickel and compounds
- 48 Nitrobenzene
- 49 Nitrophenols (Including 2,4-dinitrophenol, dinitrocresol)
- 50 Nitrosamines
- 51 Pentachlorophenol
- 52 Phenol
- 53 Phthalate esters
- 54 Polychlorinated biphenyls (PCBs)
- 55 Polynuclear aromatic hydrocarbons (including benzanthracenes, benzopyrenes, benzofluoranthene, chrysenes, dibenzanthracenes, and indenopyrenes)
- 56 Selenium and compounds
- 57 Silver and compounds
- 58 2,3,7,8 - Tetrachlorodibenzo-p-dioxin (TCDD)
- 59 Tetrachloroethylene
- 60 Thallium and compounds
- 61 Toluene
- 62 Toxaphene
- 63 Trichloroethylene
- 64 Vinyl chloride
- 65 Zinc and compounds

\*The term "compounds" shall include organic and inorganic compounds.

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interstate travelers for recreational or other purposes; and

(ii) Intrastate lakes, rivers, streams, and wetlands from which fish or shellfish are or could be taken and sold in interstate commerce; and

(iii) Intrastate lakes, rivers, streams, and wetlands which are utilized for industrial purposes by industries in interstate commerce.

Navigable waters do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

*Offshore facility* means any facility of any kind located in, on, or under, any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel;

*Onshore facility* means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under, any land within the United States other than submerged land;

*Otherwise subject to the jurisdiction of the United States* means subject to the jurisdiction of the United States by virtue of United States citizenship, United States vessel documentation or numbering, or as provided for by international agreement to which the United States is a party.

A discharge in connection with activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976), means: (1) A discharge into any waters beyond the contiguous zone from any vessel or on-

shore or offshore facility, which vessel or facility is subject to or is engaged in activities under the Outer Continental Shelf Lands Act or the Deepwater Port Act of 1974, and (2) any discharge into any waters beyond the contiguous zone which contain, cover, or support any natural resource belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976).

*Public vessel* means a vessel owned or bareboat-chartered and operated by the United States, or a State or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

*Territorial seas* means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of 3 miles.

*Vessel* means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel;

[43 FR 10474, Mar. 13, 1978; 43 FR 27533, June 26, 1978, as amended at 44 FR 10266, Feb. 16, 1979; 58 FR 45039, Aug. 25, 1993]

**§ 116.4 Designation of hazardous substances.**

The elements and compounds appearing in Tables 116.4 A and B are designated as hazardous substances in accordance with section 311(b)(2)(A) of the Act. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing these substances. Synonyms and Chemical Abstract System (CAS) numbers have been added for convenience of the user only. In case of any disparity the common names shall be considered the designated substance.

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetaldehyde .....	75070	Ethanal, ethyl aldehyde, acetic aldehyde.		
Acetic acid .....	64197	Glacial acetic acid, vinegar acid.		
Acetic anhydride .....	108247	Acetic oxide, acetyl oxide.		
Acetone cyanohydrin .....	75865	2-methylactonitrile, alpha-hydroxyisobutyronitrile.		

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TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Acetyl bromide .....	506967			
Acetyl chloride .....	79367			
Acrolein .....	107028	2-propenal, acrylic aldehyde, acrylaldehyde, acraldehyde.		
Acrylonitrile .....	107131	Cyanoethylene, Fumigrain, Ventox, propeneitrile, vinyl cyanide.		
Adipic acid .....	124049	Hexanedioic acid.		
Aldrin .....	309002	Octalene, HHDN.		
Allyl alcohol .....	107186	2-propen-1-ol, 1-propenol-3, vinyl carbinol.		
Allyl chloride .....	107051	3-chloropropene, 3-chloropropylene, Chlorallylene.		
Aluminum sulfate .....	10043013	Alum.		
Ammonia .....	7664417			
Ammonium acetate .....	631618	Acetic acid ammonium, salt.		
Ammonium benzoate .....	1863634			
Ammonium bicarbonate .....	1066337	Acid ammonium carbonate, ammonium hydrogen carbonate.		
Ammonium bichromate .....	7789095			
Ammonium bifluoride .....	1341497	Acid ammonium fluoride, ammonium hydrogen fluoride.		
Ammonium bisulfite .....	10192300			
Ammonium carbamate .....	1111780	Ammonium aminoformate.		
Ammonium carbonate .....	506876			
Ammonium chloride .....	12125029	Ammonium muriate, sal ammoniac, salmiac, Amchlor.		
Ammonium chromate .....	7788989			
Ammonium citrate dibasic .....	3012655	Diammonium citrate, citric acid diammonium salt.		
Ammonium fluoborate .....	19826830	Ammonium fluoroborate, ammonium borofluoride.		
Ammonium fluoride .....	12125018	Neutral ammonium fluoride.		
Ammonium hydroxide .....	1336216			
Ammonium oxalate .....	6009707			
	5972736			
	14258492			
Ammonium silicofluoride .....	16919190	Ammonium fluosilicate.		
Ammonium sulfamate .....	7773060	Ammate, AMS, ammonium amidosulfate.		
Ammonium sulfide .....	12135761			
Ammonium sulfite .....	10196040			
	10192300			
Ammonium tartrate .....	3164292	Tartaric acid ammonium salt.		
	14307438			
Ammonium thiocyanate .....	1762954	Ammonium rhodanide, ammonium sulfocyanate, ammonium sulfocyanide.		
Amly acetate .....	628637	Amylacetate ester .....	iso- .....	123922
		Pear oil .....	sec- .....	626380
		Banana oil .....	tert- .....	625161
Aniline .....	62533	Aniline oil, phenylamine, aminobenzene, aminophen, kyanol.		
Antimony pentachloride .....	7647189			
Antimony potassium tartrate .....	28300745	Tartar emetic, tartarated antimony, tartarized antimony, potassium antimonytartrate.		
Antimony tribromide .....	7789619			
Antimony trichloride .....	10025919	Butter of antimony.		
Antimony trifluoride .....	7783564	Antimony fluoride.		
Antimony trioxide .....	1309644	Diantimony trioxide, flowers of antimony.		
Arsenic disulfide .....	1303328	Red arsenic sulfide.		
Arsenic pentoxide .....	1303282	Arsenic acid anhydride, arsenic oxide.		
Arsenic trichloride .....	7784341	Arsenic chloride, arsenious chloride, arsenous chloride, butter of arsenic.		
Arsenic trioxide .....	1327533	Arsenious acid, arsenious oxide, white arsenic.		
Arsenic trisulfide .....	1303339	Arsenious sulfide, yellow arsenic sulfide.		
Barium cyanide .....	542621			
Benzene .....	71432	Cyclohexatriene, benzol.		
Benzoic acid .....	65850	Benzenecarboxylic acid, phenylformic acid, dracylic acid.		
Benzonitrile .....	100470	Phenyl cyanide, cyanobenzene.		
Benzoyl chloride .....	98884	Benzenecarbonyl chloride.		
Benzyl chloride .....	100447			
Beryllium chloride .....	7787475			
Beryllium fluoride .....	7787497			
Beryllium nitrate .....	7787555			

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Butyl acetate .....	13597994	Acetic acid butyl ester .....	iso- .....	110190
	123864		sec- .....	105464
			tert- .....	540885
Butylamine .....	109739	1-aminobutane .....	iso- .....	78819
			sec- .....	513495
			sec- .....	13952846
			tert- .....	75649
n-butyl phthalate .....	84742	1,2-benzenedicarboxylic acid, dibutyl ester, dibutyl phthalate.		
Butyric acid .....	107926	Butanoic acid, ethylacetic acid .....	iso- .....	79312
Cadmium acetate .....	543908			
Cadmium bromide .....	7789426			
Cadmium chloride .....	10108642			
Calcium arsenate .....	7778441	Tricalcium orthoarsenate.		
Calcium arsenite .....	52740166			
Calcium carbide .....	75207	Carbide, acetylenogen.		
Calcium chromate .....	13765190	Calcium chrome yellow, geblin, yellow ultramarine.		
Calcium cyanide .....	592018			
Calcium dodecylbenzenesulfonate .....	26264062			
Calcium hypochlorite .....	7778543			
Captan .....	133062	Orthocide-406, SR-406, Vancide-89.		
Carbaryl .....	63252	Sevin.		
Carbofuran .....	1563662	Furadan.		
Carbon disulfide .....	75150	Carbon bisulfide, dithiocarbonic anhydride.		
Carbon tetrachloride .....	56235	Tetrachloromethane Perchloromethane.		
Chlordane .....	57749	Toxichlor, chlordan.		
Chlorine .....	75003			
Chlorobenzene .....	108907	Monochlorobenzene, benzene chloride.		
Chloroform .....	67663	Trichloromethane.		
Chlorpyrifos .....	2921882	Dursban.		
Chlorosulfonic acid .....	7790945	Sulfuric chlorohydrin.		
Chromic acetate .....	1066304			
Chromic acid .....	11115745	Chromic anhydride, chromium trioxide.		
Chromic sulfate .....	10101538			
Chromous chloride .....	10049055			
Cobaltous bromide .....	7789437	Cobalt bromide.		
Coabaltous formate .....	544183	Cobalt formate.		
Cobaltous sulfamate .....	14017415	Cobalt sulfamate.		
Coumaphos .....	56724	Co-Ral.		
Cresol .....	1319773	Cresylic acid .....	m- .....	108394
		Hydroxytoluene .....	o- .....	95487
			p- .....	106445
Crotonaldehyde .....	4170303	2-butenal propylene aldehyde.		
Cupric acetate .....	142712	Copper acetate, crystalized verdigris.		
Cupric acetoarsenite .....	12002038	Copper acetoarsenite, copper acetate arsenite, Paris green.		
Cupric chloride .....	7447394	Copper chloride.		
Cupric nitrate .....	3251238	Copper nitrate.		
Cupric oxalate .....	5893663	Copper oxalate.		
Cupric sulfate .....	7758987	Copper sulfate.		
Cupric sulfate, ammoniated .....	10380297	Ammoniated copper sulfate.		
Cupric tartrate .....	815827	Copper tartrate.		
Cyanogen chloride .....	506774			
Cyclohexane .....	110827	Hexahydrobenzene, hexamethylene, hexanaphthene.		
2,4-D acid .....	94757	2,4-dichlorophenoxyacetic acid.		
2,4-D ester .....	94111	2,4-dichlorophenoxyacetic acid ester.		
	94791			
	94804			
	1320189			
	1928387			
	1928616			
	1929733			
	2971382			
	25168267			
	53467111			
DDT .....	50293	p,p'-DDT.		
Diazinon .....	333415	Dipofene, Diazitol, Basudin, Spectracide.		
Dicamba .....	1918009	2-methoxy-3,6-dichlorobenzoic acid.		
Dichlobenil .....	1194656	2,6-dichlorobenzonitrile, 2,6-DBN.		



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TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Dichlone .....	117806	Phygon, dichloronaphthoquinone.		
Dichlorobenzene .....	25321226	Di-chloride .....	Ortho .....	95501
		Paramoth (Para) .....	Para .....	106467
Dichloropropane .....	26638197	Propylene dichloride .....	1,1 .....	78999
			1,2 .....	78875
			1,3 .....	142289
Dichloropropene .....	26952238		1,3 .....	542756
			2,3 .....	78886
Dichloropropene-dichloropropane (mixture).	8003198	D-D mixture Vidden D.		
2,2-Dichloropropionic acid .....	75990	Dalapon.		
Dichlorvos .....	62737	2,2-dichlorovinyl dimethyl phosphate, Vapona.		
Dicofol .....	115322	Di(p-chlorophenyl)-trichloromethylcarbinol, DTMC, dicofol.		
Dieldrin .....	60571	Alvit.		
Diethylamine .....	109897			
Dimethylamine .....	124403			
Dinitrobenzene (mixed) .....	25154545	Dinitrobenzol .....	m- .....	99650
			o- .....	528290
			p- .....	100254
Dinitrophenol .....	51285	Aldifen .....	(2,5-) .....	329715
			(2,4-) .....	
			(2,6-) .....	573568
Dinitrotoluene .....	25321146	DNT .....	2,4 .....	121142
			2,6 .....	606202
			3,4 .....	610399
Diquat .....	85007	Aquacide.		
	2764729	Dextrone, Reglone, Diquat dibromide.		
Disulfoton .....	298044	Di-syston.		
Diuron .....	330541	DCMU, DMU.		
Dodecylbenzenesulfonic acid .....	27176870			
Endosulfan .....	115297	Thiodan.		
Endrin .....	72208	Mendrin, Compound 269.		
Epichlorohydrin .....	106898	-chloropropylene oxide.		
Ethion .....	563122	Nialate, ethyl methylene, phosphorodithioate.		
Ethylbenzene .....	100414	Phenylethane.		
Ethylenediamine .....	107153	1,2-diaminoethane.		
Ethylenediamine-tetraacetic acid (EDTA).	60004	Edetic acid, Havidote, (ethylenedinitrilo)-tetraacetic acid.		
Ethylene dibromide .....	106934	1,2-dibromoethane acetylene dibromide sym-dibromoethylene.		
Ethylene dichloride .....	107062	1,2-dichloroethane sym-bichloroethane.		
Ferric ammonium citrate .....	1185575	Ammonium ferric citrate.		
Ferric ammonium oxalate .....	2944674	Ammonium ferric oxalate.		
	55488874			
Ferric chloride .....	7705080	Flores martis, iron trichloride.		
Ferric fluoride .....	7783508			
Ferric nitrate .....	10421484	Iron nitrate.		
Ferric sulfate .....	10028225	Ferric persulfate, ferric sesquisulfate, ferric tersulfate.		
Ferrous ammonium sulfate .....	10045893	Mohr's salt, iron ammonium sulfate.		
Ferrous chloride .....	7758943	Iron chloride, iron dichloride, iron protochloride.		
Ferrous sulfate .....	7720787	Green vitriol.		
	7782630	Iron vitriol, iron sulfate, iron protosulfate.		
Formaldehyde .....	50000	Methyl aldehyde, methanal, formalin.		
Formic acid .....	64186	Methanoic acid.		
Fumaric acid .....	110178	Trans-butenedioic acid, trans-1,2-ethylenedicarboxylic acid, boletic acid, allomaleic acid.		
Furfural .....	98011	2-furaldehyde, pyromucic aldehyde.		
Guthion .....	86500	Gusathion, azinphos-methyl.		
Heptachlor .....	76448	Velsicol-104, Drinox, Heptagran.		
Hexachlorocyclopentadiene .....	77474	Perchlorocyclopentadiene.		
Hydrochloric acid .....	7647010	Hydrogen chloride, muriatic acid.		
Hydrofluoric acid .....	7664393	Fluohydric acid.		
Hydrogen cyanide .....	74908	Hydrocyanic acid.		
Hydrogen sulfide .....	7783064	Hydrosulfuric acid sulfur hydride.		
Isoprene .....	78795	2-methyl-1,3-butadiene.		
Isopropanolamine .....	42504461			
dodecylbenzenesulfonate.				
Kepone .....	143500	Chlordecone 1,1a,3,3a,4,5,5a,5b,6-decachlorooctahydro-1,3,4-metheno-2H-cyclobuta(cd)pentalen-2-one.		

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Lead acetate .....	301042	Sugar of lead.		
Lead arsenate .....	7784409 7645252 10102484			
Lead chloride .....	7758954			
Lead fluoborate .....	13814965	Lead fluoroborate.		
Lead fluoride .....	7783462	Lead difluoride, plumbous fluoride.		
Lead iodide .....	10101630			
Lead nitrate .....	10099748			
Lead stearate .....	7428480 1072351 52652592 7446142	Stearic acid lead salt.		
Lead sulfate .....	1314870	Galena.		
Lead sulfide .....	592870	Lead sulfo cyanate.		
Lead thiocyanate .....	58899	Gamma-BHC, gamma-benzene hexachloride.		
Lindane .....	14307358			
Lithium chromate .....	121755	Phosphothion.		
Malathion .....	110167	Cis-butenedioic acid, cis-1,2-ethylenedicarboxylic acid, toxic acid.		
Maleic acid .....	108316	2,5-furandione, cis-butenedioic anhydride, toxic anhydride.		
Maleic anhydride .....	203657	Mesuroil.		
Mercaptodimethur .....	592041	Mercury cyanide.		
Mercuric cyanide .....	10045940	Mercury nitrate, mercury pernitrate.		
Mercuric nitrate .....	7783359	Mercury sulfate, mercury persulfate.		
Mercuric sulfate .....	592858	Mercury thiocyanate, mercuric sulfo cyanate, mercuric sulfo cyanide.		
Mercuric thiocyanate .....	7782867			
Mercurous nitrate .....	10415755	Mercury protonitrate.		
Methoxychlor .....	72435	DMDT, methoxy-DDT.		
Methyl mercaptan .....	74931	Methanethiol, mercaptomethane, methyl sulfhydrate, thiomethyl alcohol.		
Methyl methacrylate .....	80626	Methacrylic acid methyl ester, methyl-2-methyl-2-propenoate.		
Methyl parathion .....	298000	Nitrox-80.		
Mevinphos .....	7786347	Phosdrin.		
Mexacarbate .....	315184	Zectran.		
Monoethylamine .....	75047	Ethylamine, aminoethane.		
Monomethylamine .....	74895	Methylamine, aminomethane.		
Naled .....	300765	Dibrom.		
Naphthalene .....	91203	White tar, tar camphor, naphthalin.		
Naphthenic acid .....	1338245	Cyclohexanecarboxylic acid, hexahydrobenzoic acid.		
Nickel ammonium sulfate .....	15699180	Ammonium nickel sulfate.		
Nickel chloride .....	37211055 7718549	Nickelous chloride.		
Nickel hydroxide .....	12054487	Nickelous hydroxide.		
Nickel nitrate .....	14216752			
Nickel sulfate .....	7786814	Nickelous sulfate.		
Nitric acid .....	7697372	Aqua fortis.		
Nitrobenzene .....	98953	Nitrobenzol, oil of mirbane.		
Nitrogen dioxide .....	10102440	Nitrogen tetroxide.		
Nitrophenol (mixed) .....	25154556	Mononitrophenol	m- ..... o- ..... p- ..... Ortho ..... Meta ..... Para .....	554847 88755 100027 88722 99081 99990
Nitrotoluene .....	1321126			
Paraformaldehyde .....	30525894	Paraform, Formagene, Triformol, polymerized formaldehyde, polyoxymethylene.		
Parathion .....	56382	DNTP, Niran.		
Pentachlorophenol .....	87865	PCP, Penta.		
Phenol .....	108952	Carbolic acid, phenyl hydroxide, hydroxybenzene, oxybenzene.		
Phosgene .....	75445	Diphosgene, carbonyl chloride, chloroformyl chloride.		
Phosphoric acid .....	7664382	Orthophosphoric acid.		
Phosphorus .....	7723140	Black phosphorus, red phosphorus, white phosphorus, yellow phosphorus.		
Phosphorus oxychloride .....	10025873	Phosphoryl chloride, phosphorus chloride.		
Phosphorus pentasulfide .....	1314803	Phosphoric sulfide, thiophosphoric anhydride, phosphorus persulfide.		

Environmental Protection Agency

§ 116.4

TABLE 116.4A—LIST OF HAZARDOUS SUBSTANCES—Continued

Common name	CAS No.	Synonyms	Isomers	CAS No.
Phosphorus trichloride .....	7719122	Phosphorous chloride.		
Polychlorinated biphenyls .....	1336363	PCB, Aroclor, polychlorinated diphenyls.		
Potassium arsenate .....	7784410			
Potassium arsenite .....	10124502	Potassium metaarsenite.		
Potassium bichromate .....	7778509	Potassium dichromate.		
Potassium chromate .....	7789006			
Potassium cyanide .....	151508			
Potassium hydroxide .....	1310583	Potassium hydrate, caustic potash, potassa.		
Potassium permanganate .....	7722647	Chameleon mineral.		
Propargite .....	2312358	Omite.		
Propionic acid .....	79094	Propanoic acid, methylacetic acid, ethylformic acid.		
Propionic anhydride .....	123626	Propanoic anhydride, methylacetic anhydride.		
Propylene oxide .....	75569	Propene oxide.		
Pyrethrins .....	121299	Pyrethrin I.		
	121211	Pyrethrin II.		
Quinoline .....	91225	1-benzazine, benzo(b)pyridine, leuocoline, chinoleine, leucol.		
Resorcinol .....	108463	Resorcin, 1,3-benzenediol, meta-dihydroxybenzene.		
Selenium oxide .....	7446084	Selenium dioxide.		
Silver nitrate .....	7761888	Nitric acid silver (1+) salt lunar caustic.		
Sodium .....	7440235	Natrium.		
Sodium arsenate .....	7631892	Disodium arsenate.		
Sodium arsenite .....	7784465	Sodium metaarsenite.		
Sodium bichromate .....	10588019	Sodium dichromate.		
Sodium bifluoride .....	1333831			
Sodium bisulfite .....	7631905	Sodium acid sulfite, sodium hydrogen sulfite.		
Sodium chromate .....	7775113			
Sodium cyanide .....	143339			
Sodium dodecylbenzene-sulfonate .....	25155300			
Sodium fluoride .....	7681494	Villiaumite.		
Sodium hydrosulfide .....	16721805	Sodium hydrogen sulfide.		
Sodium hydroxide .....	1310732	Caustic soda, soda lye, sodium hydrate.		
Sodium hypochlorite .....	7681529	Bleach.		
	10022705			
Sodium methylate .....	124414	Sodium methoxide.		
Sodium nitrite .....	7632000			
Sodium phosphate, dibasic .....	7558794			
	10039324			
	10140655			
Sodium phosphate, tribasic .....	7785844			
	7601549			
	10101890			
	10361894			
	7758294			
	10124568			
Sodium selenite .....	10102188			
	7782823			
Strontium chromate .....	7789062			
Strychnine .....	57249			
Styrene .....	100425	Vinylbenzene, phenylethylene, styrol, styrolene, cinnamene, cinnamol.		
Sulfuric acid .....	7664939	Oil of vitriol, oleum.		
Sulfur monochloride .....	12771083	Sulfur chloride.		
2,4,5-T acid .....	93765	2,4,5-trichlorophenoxyacetic acid.		
2,4,5-T amines .....	6369966	Acetic acid (2,4,5-trichlorophenoxy)-compound with N,N-dimethylmethanamine (1:1).		
	6369977	Acetic acid (2,4,5-trichlorophenoxy)-compound with N-methylmethanamine (1:1).		
	1319728	Acetic acid (2,4,5-trichlorophenoxy)-compound with 1-amino-2-propanol (1:1).		
	3813147	Acetic acid (2,4,5-trichlorophenoxy)-compound with 2,2'2"-nitrotris [ethanol] (1:1).		
2,4,5-T esters .....	2545597	2,4,5-trichlorophenoxyacetic esters.		
	93798			
	61792072			
	1928478			
2,4,5-T salts .....	25168154			
	13560991	Acetic acid (2,4,5-trichlorophenoxy)-sodium salt.		
TDE .....	72548	DDD.		

# Appendix F

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## BMPs for Pesticides

# PESTICIDE INFORMATION SHEET

## PESTICIDE BEST MANAGEMENT PRACTICES (BMP's)

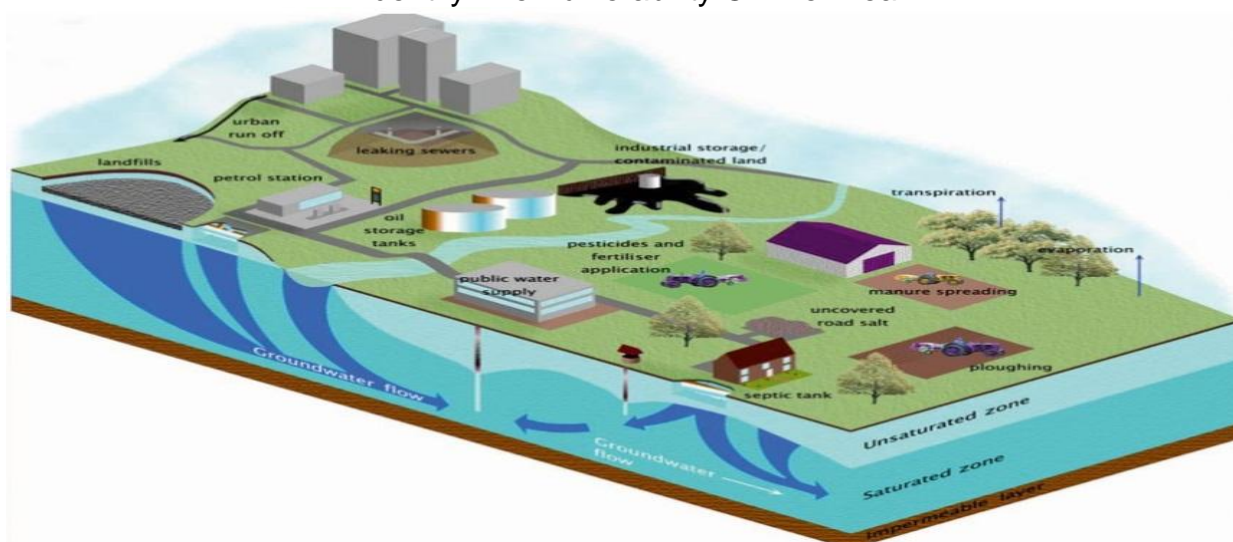
The protection of the nation's surface water and groundwater resources has become one of the primary environmental issues facing pesticide applicators. This is especially true in Connecticut with the on-going efforts to restore the City of Stamford. Connecticut is also comprised of a diverse geological make up that ranges from the sandy soil and shallow water tables of the Eastern Shore to the fractured limestone areas.












Pesticides can reach surface water by running off the application site following a heavy rainfall and into neighboring streams and rivers or sink holes. Pesticides can also leach through the soil profile into the groundwater. Contamination resulting from either of these sources is classified as "non-point source" contamination. Water contamination can also be the result of a direct or specific source, such as spill or backsiphoning during filling of pesticide application equipment. This type of contamination is referred to as "point source" contamination.

It is the responsibility of all pesticide applicators to ensure that they are using every means available to prevent pesticides from contaminating Connecticut's surface water and groundwater resources. Pesticide applicators can greatly reduce the risk of either point or non-point source contamination from pesticides by utilizing Best Management Practices (BMP's). BMP's are effective, common sense practices that emphasize proper mixing, loading and application of pesticides and also include methods that should be used before, during and after application.

When these recommended Best Management Practices are followed the potential to cause an adverse effect on the environment will greatly be reduced.

### Identify The Vulnerability Of The Area



-  **Know The Application Site** – Scout the area to evaluate the extent of the pest problem in order to select the appropriate control method. Identify environmentally sensitive areas and learn how the soil types and the layout of each application site affect the movement of water, both through and across soil.
-  **Read And Follow Label Directions** – Pesticide labels contain important information about applicator and environmental safety, including water quality protection. Always follow label directions.
-  **Match Application Rate To The Pest Problem** – Every pesticide label specifies application rates. Carefully consider all aspects of the pest problem such as the pest or pests, level of infestation, location, and environmental consideration (i.e., soil type, organic matter).
-  **Do Not Mix and Load Near Water** – Pesticides can reach groundwater and surface water as a result of discharges or spills that occur during mixing and loading operations. Mixing and loading should be done as far as possible (at least 50 feet) from wells, lakes, streams, rivers and storm drains. When possible, mix and load the pesticides at the site of application. Applicators should also consider the use of liquid-tight mixing and loading pad. Be sure all containers being transported are secured.
-  **Prevent Backsiphoning** – When filling any pesticide spray tank from a well or other water source, be sure the end of the hose stays above the spray solution in the tank. Backsiphoning can occur when the end of the fill hose or pipe falls below the level of the solution in the tank and there is a drop in water pressure. Use an approved anti-backsiphoning device or an air break in the water system.
-  **Calibrate Application Equipment Properly** – Frequently check and maintain spray nozzles, hoses, gauges and tanks. Proper calibration is the key to applying accurate rates of pesticides. Improper calibration can result in too much or too little product applied, irregular distribution and poor pest control. Inaccurate tank volumes and pressure gauges or worn nozzles also may cause improper application. Inspect application equipment before every use.
-  **Delay pesticide Application If Heavy Rain Is Forecast** – Pesticides are most susceptible to runoff from heavy rains during the first several hours after application.
-  **Avoid Overspray And Drift** – Check the pesticide label for application precautions or restrictions during windy conditions. Wind speed, temperature and humidity all affect pesticide spray drift. Drift can be reduced by lowering boom heights and using nozzles that produce large droplet sizes.
-  **Store Pesticides In A Safe Place** – Pesticides need to be stored in a secure place and should be stored in their original containers with the labels clearly visible. Pesticides must be stored at least 50 feet from any well unless they are stored in secondary containment.
-  **Properly Dispose Of Pesticide Containers** – Information about container disposal is on the pesticide label. Containers should be triple or pressured-rinsed thoroughly after use, punctured and disposed of in accordance with label directions or offered for recycling as part of the Connecticut Department of Agriculture's program. Sprayers should be cleaned at the application site whenever possible and at a safe distance from wells, lakes, streams and storm drains. The rinseate should be sprayed on site that is listed on the pesticide label or used as makeup water in the next tank mix. Be sure label rates are not exceeded.
-  **Develop An Emergency Response Plan** – Anyone who stores, handles or uses pesticides should have an emergency response plan in case an accident occurs.

For further information on BMP's, contact the Department of Energy and Environmental Protection Bureau of Materials Management and Compliance Assurance, Pesticide Management Program, 79 Elm Street, Hartford, Connecticut 06106-5127. ([http://www.ct.gov/deep/cwp/view.asp?a=2710&q=324266&deepNav\\_GID=1712%20](http://www.ct.gov/deep/cwp/view.asp?a=2710&q=324266&deepNav_GID=1712%20))

## Appendix G

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### PHF Use in Athletic Fields

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

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

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

3<sup>rd</sup> 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/Scalzi #1, #2 and #3

Cubeta Stadium

Springdale Little League Field

Kosciusko 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 H

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### Changes to Zoning Regulations for Stormwater Management

## **15.D - STORMWATER MANAGEMENT (MS4) (220-14)**

### **15.D.1 Purpose and Intent**

The purpose of this section is to ensure that new development, redevelopment, and other land disturbance activities within the City of Stamford:

- a. Are in compliance with Federal and State requirements regarding stormwater management practices;
- b. Promote the implementation of “Low Impact Development” (LID) site design strategies and stormwater treatment practices;
- c. Minimize degradation of water resources within the City of Stamford from pollution from non-point source runoff;
- d. Mitigate impacts to the hydrologic system from development, including maintaining post-development runoff conditions at least as effective as pre-development runoff conditions; and
- e. Reduce or prevent flooding, stream channel erosion, and/or other negative impacts created by the volume of stormwater runoff resulting from development.

### **15.D.2 Applicability**

The provisions of this Section of the Regulations shall apply to all new development, redevelopment, and other land disturbance activities within the City of Stamford, whether considered individually or collectively as part of a larger common plan, unless:

- a. Specifically exempted in Section 2.2 of the City of Stamford Stormwater Drainage Manual (2020), as amended, or
- b. Granted a modification by the Engineering Bureau as provided in Section 2.3 of the City of Stamford Stormwater Drainage Manual (2020), as amended, where, due to physical site or environmental conditions, it is not feasible or possible to meet one or more of the requirements.

### **15.D.4 Requirements**

- a. Any new development, redevelopment, and other land disturbance activities within the City of Stamford shall conform to the requirements of the City of Stamford Stormwater Drainage Manual (2020), as amended, unless exempted or modified as provided in Section 15.D.2 of these Regulations.
- b. For post-construction stormwater management, any development, redevelopment, and other land disturbance activities within the City of Stamford shall maintain compliance with:

- (1) City of Stamford Ordinance #1183 regarding discharges to the City Stormwater System;
- (2) The Connecticut Stormwater Quality Manual (2004), as amended;
- (3) Any Standard, City of Stamford Agreement Covenant and/or Drainage Maintenance Agreement applicable to the premises; and
- (4) All stormwater discharge permits issued by the Connecticut Department of Energy and Environmental Protection (DEEP) within the City of Stamford pursuant to CGS 22a-430 and 22a-430b.

### **15.D.5 Administration**

**a. Engineering Bureau:** The City Engineer, or designee shall:

- (1) Perform technical reviews of development proposals with regard to adherence with the City of Stamford Stormwater Drainage Manual (2020), as amended.
- (2) Prepare comments regarding adherence to the City of Stamford Stormwater Drainage Manual (2020), as amended, unless such development proposal is exempted or such drainage standards modified as provide in Section 15.D.2 of these Regulations.
- (3) Perform field inspections, as it deems necessary, to ensure compliance with approved plans and consistency with other relevant drainage requirements and/or practices.
- (4) Maintain all records pertaining to the provisions of this Section.
- (5) Endorse issuance of a Certificate of Occupancy/Completion and release of surety upon a determination that all conditions, including but not limited to, the stormwater approval, have been met.

**b. Environmental Protection Board (EPB):** The Executive Director of the Environmental Protection Board or designee shall:

- (1) Assist the Engineering Bureau in the technical review of development proposals, including the identification of resources, establishing the applicability of these regulations, etc.
- (2) Assist the Engineering Bureau in the performance of field inspections to ensure compliance with approved plans and consistency with other relevant drainage requirements and/or practices.
- (3) Incorporate comments from the Engineering Bureau in any permit or approval issued by the EPB.

- (4) Endorse issuance of a Certificate of Occupancy/Completion and release of surety upon a determination that all conditions of the stormwater approval have been met.
- c. Zoning Board (ZB), Planning Board (PB), Zoning Board of Appeals (ZBA):** The Zoning Board, Planning Board and Zoning Board of Appeals, or respective designee, shall:
- (1) Incorporate comments from the Engineering Bureau in any permit or approval issued by these agencies.
- d. Zoning Enforcement Officer (ZEO):** The *Zoning Enforcement Officer* or designee shall:
- (1) Enforce any violation in the same manner as other violations of the Zoning Regulations, and
  - (2) Endorse issuance of a Certificate of Occupancy/Completion and release of surety upon a determination that all conditions of the stormwater approval have been met and following the receipt of written endorsements by the Engineering Bureau and EPB.
- e. Building Department.** The Chief Building Official or designee shall not issue a Building Permit until the requirements of this Section have been met and shall not issue a final Certificate of Occupancy or Completion until written approval has been issued by the ZEO.
- f. Permit Application Procedures.** Prior to any development activity, the materials and information identified in Section 6 (Submittal Requirements) City of Stamford Stormwater Drainage Manual (2020), as amended, shall be provided to the Engineering Bureau for review unless exempted or modified as provided in Section 15.D.2 of these Regulations.
- g. Certification of Completed Development.** Upon completion of the permitted development and prior to the issuance of a Certificate of Occupancy/Completion and release of surety, an Improvement Location Survey (ILS) by a Connecticut licensed land surveyor, engineering certification by a Connecticut licensed professional engineer, Directly Connected Impervious Area (DCIA) Summary Report by a Connecticut licensed engineer, and other pertinent data, shall be provided demonstrating compliance with the City of Stamford Stormwater Drainage Manual (2020), as amended, unless exempted or modified as provided in Section 15.D.2 of these Regulations.

#### **15.D.6 Enforcement**

This Section of the Regulations shall be enforced in accordance with State statutes, local ordinances (including Chapter 248 of the Code of Ordinances – Penalties For Violations of Zoning Regulations), and other applicable enforcement procedures.

## Appendix I

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Building Permit

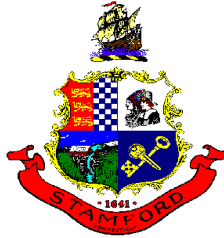
To be Updated by Stamford to include check-off for construction  
Stormwater General Permit

## Appendix J

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### Example Illegal Discharge Enforcement Letter

MAYOR  
DAVID MARTIN  
  
DIRECTOR OF OPERATIONS  
MARK McGRATH



CITY OF STAMFORD  
OFFICE OF OPERATIONS  
STORMWATER MANAGEMENT DEPARTMENT

TRAFFIC & ROAD MAINTENANCE SUPERVISOR  
THOMAS TURK  
  
REGULATORY COMPLIANCE OFFICER  
TYLER THEDER

February 7, 2019

Stamford, CT 06902

**RE: Illegal Deposit of Water on Roadway 38 XXX Lane**

Ms., XXX

Please be advised this office is in receipt of information regarding recent discharges of water coming from your property at the above listed address and flowing onto a City maintained roadway.

This office conducted an inspection of the above listed premises on February 6, 2019. The inspection revealed a black 4" diameter HDPE pipe located east of your driveway, near the stone wall, which was discharging at the time of inspection. Be advised that discharges from your property have caused significant ice conditions on the roadway this winter.

You should be aware the City of Stamford's Charter (Section 214-9) prohibits the discharge of drainwater to roadways. The ordinance states: "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. **This ordinance is enforceable with fines of \$90 for each offence. Each violation is a separate and distinct offense and each day that such violation continues uncorrected is deemed a separate and distinct offense.**

**You are required to correct this condition immediately.** Please be advised your failure to comply with the provisions of the City Charter will result in the issuance of a citation(s) as noted above. Please contact me at **203-977-5281** within seven (7) calendar days of receiving this notice to discuss your plans for compliance.

Sincerely,

Tyler L. Theder  
Regulatory Compliance and Administrative Officer

cc: Mark McGrath-Operations Director, Burt Rosenberg-Assistant Corporation Council, Thomas Turk-Road Maintenance Supervisor, Lou Casolo – City Engineer, Frank Fedeli, Chief Citation Officer

Sent Certified

## Appendix K

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### CTDEEP's Best Management Practices for Disposal of Snow Accumulation from Roadways and Parking Lots



[\(/DEEP\)](#)

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## Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots

**Purpose:** These guidelines have been developed to clarify DEEP recommendations to state and municipal officials, and others regarding the removal and disposal of snow accumulations from roadways and parking lots. For purposes of this guidance snow accumulations refers to snow banks and snowpiles that are removed by front-end loader or by loading on trucks for disposal. This guidance does not apply to normal snow plowing operations that must, inevitably, discharge some snow into wetlands and watercourses.

**Implementation:** While following these guidelines does not constitute a permit or authorization, the Department recognizes there is a considerable need for flexibility in implementation of this policy, particularly in emergency situations. There is no intent to interfere with snow plowing operations. Where trucking and snow dumping operations are undertaken the Department recommends these guidelines be followed.

**Problem:** Current road maintenance activities include removal of snow accumulations from bridges, roads and parking areas for the purpose of providing more space for subsequent snow storms and for ease of travel and parking. Sometimes this snow is moved by truck or with a front-end loader and deposited directly into surface waters of the state including streams, wetlands and Long Island Sound. This practice is not recommended due to the presence of dirt, salt, litter and other debris, which are routinely mixed in the accumulated snow.

Under normal conditions of snowmelt, the majority of these contaminants remains on or next to the paved surface or may be captured in stormwater catch basins. These contaminants can then be swept from streets and bridges or vacuumed from catch basin sumps. However, when accumulated snow is collected and dumped into surface waters, this mixture of snow, sand and debris may smother aquatic life in the bottom of streams and rivers and degrade the aesthetics of the surface water with silt plumes and litter. Large quantities of snow (and the sand and debris) may also cause blockage of storm drainage systems, resulting in increased chance for localized flooding.

**Recommended Management Practice:** Snow accumulations removed from roadways, bridges, and parking lots should be placed in upland areas only, where sand and other debris will remain after snowmelt for later removal. Care must be exercised not to deposit snow in the following areas:

- freshwater or tidal wetlands or in areas immediately adjacent to such areas where sand and debris may be flushed during rainstorms;
- on top of storm drain catch basins;
- in storm drainage swales;
- on stream or river banks which slope toward the water, where sand and debris can get into the watercourse; and
- in areas immediately adjacent (within at least 100 feet) of private or public drinking water well supplies (due to the possible presence of road salt).

**For Governmental Entities:** In normal winter conditions, governmental entities should follow the recommended management practices outlined above. In extraordinary winter conditions, the commissioner may, upon public notification, offer governmental entities the flexibility of limited in-water disposal. When such flexibility is offered, governmental entities who have determined that extraordinary circumstances exist where all upland, land-based disposal options have been fully exhausted (i.e., disposal capacity is not available) and snow needs to be removed to meet public

safety demands (i.e., clear access ways for police, emergency medical and fire responders), may use certain waterways for snow disposal in accordance with the following conditions:

- Upland storage and disposal of snow (i.e., athletic fields, parks and other flat, open-field sites) and other snow management methods (i.e., snow melting equipment) must be the first alternatives explored and exhausted. Environmentally sensitive areas must be avoided;
- This guidance applies only to snow and ice which is not visibly contaminated with material other than salt and sand from road clearing activities;
- For coastal communities, preference should be given to snow disposal in salt water where available;
- Disposal in rivers or streams must be limited to those water bodies that have adequate flow and mixing and are not prone to ice jams;
- The disposal must occur only in open water in areas that will not interfere with navigation;
- Disposal must be conducted in a manner so as to prevent ice dam formation or damage to bridges, docks or other structures;
- Disposal in ponds and lakes is discouraged;
- There shall be no disposal in coastal or freshwater wetlands, eelgrass beds, vegetated shallows, vernal pools, shellfish beds mudflats, public water supply reservoirs and their tributaries, or others areas designated as being environmentally sensitive;
- The activity must comply with local laws and requirements;
- Precautions must be taken to avoid shoreline or stream bank damage or erosion from truck/equipment activity; and
- Governmental entities must notify the Department by email (address email to [dahlia.gordon@ct.gov](mailto:dahlia.gordon@ct.gov) (<mailto:dahlia.gordon@ct.gov>)) prior to disposing of snow and ice in waterways or, if advance notification is not possible, then the Department must be contacted as soon as possible after snow disposal has begun.

**Notification:** Notification can be made by addressing an email to Dahlia Gordon at: [dahlia.gordon@ct.gov](mailto:dahlia.gordon@ct.gov) (<mailto:dahlia.gordon@ct.gov>). The notification must include the following: (1) the name of the governmental entity making the notification; (2) contact information for the governmental entity including name, email address and phone number; (3) the street address where the snow disposal activity will occur; (4) the name of the waterbody where the snow will be disposed; (5) the estimated quantity of snow to be disposed; (6) the dates during which the disposal activity will occur; and (7) a statement that the governmental entity has exhausted all disposal alternatives and snow management methods and will make best efforts to adhere to these snow disposal guidelines.

**Information:** For further information please call the Water Permitting and Enforcement Division Engineer of the Day at 860-424-3025.

## Appendix L

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### Catch Basin Inspections, Cleanings and Recommended Cleaning Frequency

## Appendix M

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### Detention and Retention Ponds

STREET	ADDRESS	OWNER 1 As Reflected in GIS 3/24/15 - 4/20/15	PROJECT/SUBDIVISION COMMON NAME	LOT NUMBER	ACCOUNT NUMBER	STRUCTURE TYPE	PUBLIC OR PRIVATE	PROJECT BUILT	AERIAL	ILS	AGREE EASE	TYPE	BOOK	PAGE	DATE	COMMENTS	Basin No. Pieces
Bouton Street West	205 Bouton Street West	Pontefract, Owen	NA	23	002-4445	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	11038	83	7/7/2014		1-3
Ocean Drive West	380 Ocean Drive West	Schwartz, Ellen Bevins	NA	24	000-5269	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	10979	280	4/4/2014		2-3
Haviland Road	546 Haviland Road	Sunset Holdings, LLC	NA	1	004-0979	Basin	Private	Yes	Yes	Yes	Yes	DMA	10964	194	3/11/2014		3-3
Gatehouse Road	22 Gatehouse Road	SAC Capital Advisors	NA	3	002-9162	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	10901	94	11/20/2013		4-3
Haviland Road	544 Haviland Road	Silver, Stephen	NA	3	004-0981	Basin	Private	Yes	Yes	Yes	Yes	DMA	10878	275	10/16/2013		5-4
Washington Boulevard	2396 Washington Boulevard	Sunset Holdings, LLC	NA	3	004-0980	Basin	Private	Yes	Yes	Yes	Yes	DMA	10878	275	10/16/2013		6-3
Washington Boulevard	2396 Washington Boulevard	Mojimbar, Antara	White Socks, 2 Family, Unit 2	96-8	004-5396	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	10414	211	5/3/2012		7-3
Washington Boulevard	2382 Washington Boulevard	Wong, Paul	White Socks, 2 Family, Unit 1	96-8	004-5395	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	10414	211	5/3/2012		8-4
Haviland Road	547 Haviland Road	Rosenberg, Gloria	NA	8	000-8500	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	10369	319	3/8/2012		9-3
Compo Drive	28 004-3316	Francis, Patrick	NA	28	004-3316	Berm	Private	Yes	Yes	Yes	Yes	DMA	10179	169	7/14/2011		11-3
Den Road	Compo Drive	Compolattoro, Frank	NA	28	004-3316	Berm	Private	Yes	Yes	Yes	Yes	DMA	10179	133	7/14/2011		12-3
MacArthur Lane	480 Den Road	Bright, Patrick	NA	2	004-3064	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	9619	259	6/9/2009		13-3
Golden Farm Road	Purser Place, LLC	Mackthor Park Pkds	NA	3	004-3068	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	8929	89	3/26/2007		14-4
Konandreas Drive	65 MacArthur Lane	Vlastos, John	Golden Farm Subdivision	6	004-2620	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	6256	159	5/28/2002		15-5
Eastover Road	Golden Farm Road	Konandreas, Lukas	Konandreas Drive Subdivision	6	004-2620	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	6185	260	4/3/2002		16-3
Sunset Court	Konandreas Drive	Konandreas, Lukas	Konandreas Drive Subdivision	9	004-2553	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	5865	178	7/24/2001		17-9
Webbs Hill Road	Eastover Road	Celico Partnership	Cellio Subdivision	1,2,3,4	004-2955	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	5865	178	7/24/2001		18-4
West Avenue	Sunset Court	Biancuzzo, Frank	Davidoff Subdivision	3	004-2969	Basin	Private	Yes	Yes	Yes	Yes	DMA	6727	168	3/11/2003	Majority of the structure may lie on Celco Site (4) and may not subject to DMA.	19-5
Haviland Road	39 Sunset Court	Wrigley, James	Sunset Court Subdivision	4	004-2969	Basin	Private	Yes	Yes	Yes	Yes	DMA	8568	177	5/30/2006		20-4
Haviland Road	189 Webbs Hill Road	Goldstone, Daniel	NA	3C	004-3397	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	9378	299	6/20/2008		21-3
Strawberry Hill Avenue	650 West Avenue	West Avenue Realty Associates	Post Office/Standard Brands	NA	NA	Berm	Private	Yes	Yes	Yes	No	DMA	NA	NA	NA		22-4
Strawberry Hill Avenue	168 Haviland Road	Sluga, Robert	NA	5	004-1996	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	5006	135	5/29/1998		23-3
Strawberry Hill Avenue	162 Haviland Road	Irafate, Anthony	NA	82	003-8550	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		24-6
Strawberry Hill Avenue	90 Fieldstone Road	Kotkor, Cyriac	Stonegate Subdivision	83	003-8549	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		25-5
Strawberry Hill Avenue	98 Fieldstone Road	Walsh, Michael	Stonegate Subdivision	84	003-8590	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		26-6
Strawberry Hill Avenue	6 Fieldstone Terrace	Majumdar, Shailsh	Stonegate Subdivision	85	003-8591	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		27-2
Strawberry Hill Avenue	26 Fieldstone Terrace	Yang, Allen	Stonegate Subdivision	86	003-8592	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		28-3
Strawberry Hill Avenue	14 Fieldstone Circle	Sakowitz, Russell	Stonegate Subdivision	88	003-8541	Basin	Private	Yes	Yes	Yes	Yes	DE	2766	205	5/9/1986		29-2
North Meadow Lane	274 Strawberry Hill Avenue	Saint Bridget's R.C. Church Corp.	Queen of the Clergy	44	004-2537	Basin	Private	Yes	Yes	Yes	Yes	DMA	5174	169	1/5/1999		30-4
Davenport Farm Lane	58 North Meadow Lane	Cadoret, Francois	North Meadow Lane Subdivision	5	004-1899	Basin/Berm	Private	Yes	Yes	Yes	Yes	DMA	4394	23	4/19/1995		31-4
Davenport Farm Lane	Davenport Farm Lane East	Davenport Farm Corporation	Davenport Farm Subdivision	NA	NA	Berm	Private	Yes	Yes	Yes	Yes	DMA	2552	164	5/6/1985		32-2
Davenport Farm Lane	320 Loveland Road	Genovesi, Rocco	Davenport Farm Subdivision	NA	NA	Berm	Private	Yes	Yes	Yes	Yes	DMA	2461	214	10/4/1984		33-4
Davenport Farm Lane	54 Crofts Lane	Strawberry Woods Condominium As.	Darnell Drive/Lanterm Circle	36	003-6733	Berm	Private	Yes	Yes	Yes	Yes	DMA	3769	56	11/25/1991		34-3
Davenport Farm Lane	59 Crofts Lane	Tanacea, David	Strawberry Woods	NA	NA	Berm	Private	Yes	Yes	Yes	Yes	DMA	3738	226	9/6/1991		35-3
Davenport Farm Lane	38 Crofts Lane	Anstine, Robert	Crofts Lane Subdivision	5	004-1376	Basin	Private	Yes	Yes	Yes	Yes	DMA	3738	226	9/6/1991		36-1
Davenport Farm Lane	35 Crofts Lane	Fahey, Mark	Crofts Lane Subdivision	2	004-0787	Basin	Private	Yes	Yes	Yes	Yes	DMA	3738	226	9/6/1991		37-1
Davenport Farm Lane	50 Mary Violet Road	Crofts Lane Partners, LLC	Crofts Lane Subdivision	3A	004-1206	Basin	Private	Yes	Yes	Yes	Yes	DMA	3738	226	9/6/1991		38-1
Emerald Lane	76 Emerald Lane	Li, Jian Wen	NA	5	003-9213	Basin	Private	Yes	Yes	Yes	Yes	DMA	4883	341	12/9/1997		39-1
Emerald Lane	32 Heming Way	O'Farrell, Michael	NA	4A	003-8955	Basin	Private	Yes	Yes	Yes	Yes	DMA	4568	288	5/7/1996		40-3
Heming Way	110 Edward Place	Heatherwood Condominiums	Heatherwood Condominiums	NA	NA	Berm	Private	Yes	Yes	Yes	Yes	DMA	3378	324	1/24/1989		41-3
Edward Place	122 Edward Place	Felin, Edward	NA	1	004-0020	Basin	Private	Yes	Yes	No	No	DMA	NA	NA	NA		42-2
Friars Lane	56 Broad Brook Lane	McGrath, Michael	Laurelwood	21	004-1415	Berm/OCLS	Private	Yes	Yes	Yes	Yes	DMA	3926	25	10/13/1992		43-5
Newfield Avenue	122 Palmer's Hill Road	Bahar, David	Laurelwood	22	004-1416	Berm/OCLS	Private	Yes	Yes	Yes	Yes	DMA	3926	25	10/13/1992		44-3
Palmer's Hill Road	Turn of River Road	Moss, Andrew	Davenport Farm	12	004-1782	Berm/OCLS	Private	Yes	Yes	Yes	Yes	DMA	4394	31	4/19/1995		45-1
Palmer's Hill Road	Turn of River Road	King Low Heywood Thomas School	KJHT	A	002-6661	Basin	Private	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Palmer's Hill Road	Turn of River Road	Palmer's Hill Property Corporation	Edgehill	A	000-0265	Basin	Private	Yes	Yes	Yes	Yes	DMA	4805	135	7/31/1997	Modification Agreement Book 10106; Page 207, 3/11/11	37-1
Palmer's Hill Road	Turn of River Road	Riverturn Condominiums Assoc.	Riverturn Condominiums	NA	NA	Basin/OCLS	Private	Yes	Yes	Yes	Yes	DMA	4884	1	12/9/1997		38-1
Ocean Drive West	270 Ocean Drive East	Cologelo, Robert	Sterling Lake Condominiums	1	004-2161	Rain Garden	Private	Yes	Yes	Yes	Yes	DMA	3759	226	10/29/1991		39-1
Newfield Avenue	1857 Newfield Avenue	The Greycork Companies	NA	B1	001-0096	Basin	Public	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Bridge Street	Bridge Street	City of Stamford	Scalzi Park Improvements	B1/B3	000-8923	Rain Garden	Public	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Memri Brook Lane	46 Bud Lane	Felenstein, Brad	Scalzi Park Improvements	5	004-2071	Basin	Private	Yes	Yes	Yes	Yes	DMA	4635	257	9/10/1996		40-3
Brookdale Road	219 Brookdale Road	Keastr, Robert	NA	4	004-0971	Basin	Private	Yes	Yes	Yes	Yes	DMA	5044	257	7/16/1998		41-3
Wind Mill Circle	30 Windmill Circle	Kustrati, Xhavit	NA	A24	001-6339	Basin	Private	Yes	Yes	Yes	Yes	DMA	5044	257	7/16/1998		43-5
East Ridge/Valley View	73 East Ridge Road	Lorenzo, Anthony	Macrides Subdivision	29	003-3246	Berm	Private	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
East Ridge/Valley View	1 Valley View Drive	Gediman, Judith	Macrides Subdivision	7	003-3229	Berm	Private	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Long Ridge Road	710 Long Ridge Road	710 Long Ridge Road, LLC	Medplex Nursing Home	20A	004-1372	Basin	Private	Yes	Yes	Yes	Yes	DMA	3888	68	8/25/1992		44-3
Mulberry Street	139 Mulberry Street	Sandoval, Homero	NA	8 and 9	002-4908	Basin	Private	No	Yes	No	No	DMA	NA	NA	NA	NA	NA
West Main Street	1937 West Main Street	Cytec Industries, Inc.	NA	82	004-3103	Basin	Private	No	Yes	No	No	DMA	NA	NA	NA	NA	NA
Sun Dance Road	125 Sundance Road	Datzman, Sarah	NA	149	002-5084	Rain Garden	Private	No	Yes	No	No	DMA	NA	NA	NA	NA	NA
Gun Club Road	122 Gun Club Road	Lam, Howard	NA	5	003-1980	Berm/OCLS	Private	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Mill Valley Lane	106 Gun Club Road	Cohen, Herbert	NA	4	003-1978	Berm/OCLS	Private	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA	NA
Mill Valley Lane	45 Mill Valley Lane	Crawford, Gregory	NA	13	003-0835	OCLS	Private	Yes	Yes	Yes	No	NA	NA	NA	NA	NA	NA
Hillsbury Lane	146 Blackberry Drive	Speaker, Michael	NA	16	003-0833	OCLS	Private	Yes	Yes	Yes	No	NA	NA	NA	NA	NA	NA
Hillsbury Lane	21 Hillsbury Lane	Munro, Carlton Lake	NA	16	003-0833	OCLS	Private	Yes	Yes	Yes	No	NA	NA	NA	NA	NA	NA
Shippan Avenue	57 Shippan Avenue	Pemberton, Patricia	NA	B4	003-4915	Basin	Private	Yes	Yes	Yes	No	DE	2128	238	5/14/1982	Portions of the piping and basin may be covered by a Drainage Easement.	50-4
Shippan Avenue	507 Shippan Avenue	Mrelo, Marianna	Knights of Columbus Social Hall	A3	003-5701	Basin	Private	Yes	Yes	Yes	Yes	DE	2128	238	5/14/1982	Portions of the piping and basin may be covered by a Drainage Easement.	51-2
Shippan Avenue	511 Shippan Avenue	National Church Associates	Knights of Columbus Social Hall	A24	003-6702	Basin	Private	Yes	Yes	Yes	Yes	NA	NA	NA	NA	NA	NA
Elm Street	566 Elm Street	Saint Mary's Church	Church Property	B	003-8149	Basin	Private	Yes	Yes	No	No	NA	NA	NA	NA	NA	NA
Stone Fence Lane	23 Stone Fence Lane	Sewero, Christopher	NA	5	003-9527	Rain Garden	Private	No	Yes	No	No	NA	NA	NA	NA	NA	NA

## Appendix N

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### Interconnected MS4s Information

# Appendix O

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## IDDE Outfall Lists



# City of Stamford - CT0030279

## IDDE Outfall Priority Ranking



Outfall ID	Location	Receiving Stream	Priority Ranking	Notes
DIS-1	Harbor Drive - located in Schooner Cove Condos behind pool	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-2	Mitchell Street - end of street	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-3	Downs Avenue - behind 129 / 135 Downs Ave.	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-4	Ralsey Road - behind 1 Ralsey Road	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-5	Ralsey Road South - behind 43 Ral. Rd. / N. side Stam. Yacht Club	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-6	East side of East Branch - adjacent to WPCA	Stamford Harbor / Long Island Sound	A	may need boat to sample at low tide
DIS-7	Ocean Drive West - behind 115 ODW, S. side of Stam. Yacht Club	Stamford Harbor / Long Island Sound	A	possible recreational contact with water
DIS-8	East side of East Branch - adjacent to Solid Waste Building	Stamford Harbor / Long Island Sound	A	may need boat to sample at low tide
DIS-9	East side of East Branch - adjacent to WPCA	Stamford Harbor / Long Island Sound	A	may need boat to sample at low tide
DIS-10	Fairview Ave. - West side. End of street	Stamford Harbor / Long Island Sound	B	possible recreational contact with water
DIS-11	Saddle Rock Road - backyard of 89 / 107 Saddle Rock Rd.	Stamford Harbor / Long Island Sound	B	possible recreational contact with water
DIS-12	Green Street - end of street	Rippowam River	B	discharge to impaired waters
DIS-13	West North St. -adjacent to bridge	Rippowam River	B	discharge to impaired waters
DIS-14	Stamford Ave. - end of street	Long Island Sound	B	possible recreational contact with water
DIS-15	Shippan Ave. - end of street	Long Island Sound	A	Previous MS4 permit sampling location #1
DIS-16	Ocean View Drive - end of street adjacent to public beach	Long Island Sound	A	possible recreational contact with water
DIS-17	Hobson St. - end of street	Long Island Sound	A	possible recreational contact with water
DIS-18	Main St. & Mill River St. at S. side of bridge	Rippowam River	A	Complaint of possible ID in area
DIS-19	Ocean Drive North - backyard of vacant lot between 20 & 40 ODN	Westcott Cove / Long Island Sound	A	possible recreational contact with water
DIS-20	Tresser Blvd. - adjacent to bridge on S. side	Rippowam River	A	Complaint of possible ID in area
DIS-21	Cold Spring road - adjacent to N. side of bridge	Rippowam River	A	Previous MS4 permit sampling location #2
DIS-22	Tresser Blvd. - adjacent to bridge on N. side	Rippowam River	A	Complaint of possible ID in area
DIS-23	Division St. - end of street	Rippowam River	A	Previous MS4 permit sampling location #4
DIS-24	Soundview Drive	Westcott Cove / Long Island Sound	B	possible recreational contact with water
DIS-25	Selleck St. - behind 328 Selleck - samples collected in manhole	Long Island Sound	A	Previous MS4 permit sampling location #6
DIS-26	Mill River St. & Smith St.	Rippowam River	A	Complaint of possible ID in area
DIS-27	West View Lane - N. side of street, off Westover Rd.	Mianus River	A	Complaint of possible ID in area
DIS-28	Meadowpark Ave. West - located in park area	Rippowam River	C	possible recreational contact with water
DIS-29	Innaccurate location - eliminated		-	
DIS-30	Weed Ave. - adjacent to E. Main St.	Holly Pond / Long Island Sound	B	possible recreational contact with water
DIS-31	Innaccurate location - eliminated		-	
DIS-32	Innaccurate location - eliminated		-	
DIS-33	Innaccurate location - eliminated		-	
DIS-34	Innaccurate location - eliminated		-	
DIS-35	Viaduct Road - backyard of 57 Viaduct Rd. adj. to end of cul de sac	Noroton River	B	discharge to impaired waters

DIS-36	Poplar St. - N. side of 52 Poplar St.	Noroton River	<b>B</b>	discharge to impaired waters
DIS-37	Vernon Place - end of street	Rippowam River	<b>B</b>	discharge to impaired waters
DIS-38	Innaccurate location - eliminated		-	
DIS-39	Innaccurate location - eliminated		-	
DIS-40	Innaccurate location - eliminated		-	
DIS-41	Innaccurate location - eliminated		-	
DIS-42	Innaccurate location - eliminated		-	
DIS-43	Innaccurate location - eliminated		-	
DIS-44	Innaccurate location - eliminated		-	
DIS-45	Richmond Hill Ave. - adjacent to bridge	Rippowam River	<b>B</b>	discharge to impaired waters
DIS-46	Innaccurate location - eliminated		-	
DIS-47	Cove Island Park - adjacent to S. end of parking lot	Cove Harbor / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-48	Cove Island Park - Cove Road	Cove Harbor / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-49	Mill River Park - adjacent to Mill River St.	Rippowam River	<b>A</b>	possible recreational contact with water
DIS-50	Cummings Park - adjacent to East Ave.	Westcott Cove / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-51	Innaccurate location - eliminated		-	
DIS-52	Meadowpark Ave. East - located in park area	Rippowam River	<b>C</b>	possible recreational contact with water
DIS-53	Innaccurate location - eliminated		-	
DIS-54	Innaccurate location - eliminated		-	
DIS-55	Innaccurate location - eliminated		-	
DIS-56	Innaccurate location - eliminated		-	
DIS-57	Innaccurate location - eliminated		-	
DIS-58	Maple Tree Ave. - south side of bridge	Noroton River	<b>C</b>	discharge to impaired waters
DIS-59	Innaccurate location - eliminated		-	
DIS-60	Stanwick Circle - backyard of 8 Stanwick Circle	Rippowam River	<b>C</b>	discharge to impaired waters
DIS-61	Innaccurate location - eliminated		-	
DIS-62	Courtland Hill St. - located in backyard of 119 Courtland Hill St.	Noroton River	<b>A</b>	discharge to impaired waters
DIS-63	Lenox Ave. - end of street	Noroton River	<b>A</b>	discharge to impaired waters
DIS-64	Innaccurate location - eliminated		-	
DIS-65	Innaccurate location - eliminated		-	
DIS-66	Innaccurate location - eliminated		-	
DIS-67	Innaccurate location - eliminated		-	
DIS-68	Jefferson Street - North end of East Branch	Stamford Harbor / Long Island Sound	<b>A</b>	may need boat to sample at low tide
DIS-69	West Forest Lawn Ave. - end of street	Rippowam River	<b>C</b>	discharge to impaired waters
DIS-70	Washington Blvd. and Fourth St. - South Outfall	Rippowam River	<b>A</b>	Previous MS4 permit sampling location #3
DIS-71	Washington Blvd. and Fourth St. - North Outfall	Rippowam River	<b>A</b>	Previous MS4 permit sampling location #3
DIS-72	Innaccurate location - eliminated		-	
DIS-73	Washington Blvd. and Second St.	Rippowam River	<b>B</b>	discharge to impaired waters
DIS-74	Jefferson Street - North end of East Branch	Stamford Harbor / Long Island Sound	<b>A</b>	may need boat to sample at low tide
DIS-75	Poplar St. - end of street	Noroton River	<b>A</b>	Previous MS4 sampling location #5
DIS-76	Research Drive - north of 74 Research Dr.	Noroton River	<b>B</b>	discharge to impaired waters
DIS-77	Research Drive - backyard of 74 Research Dr.	Noroton River	<b>C</b>	discharge to impaired waters
DIS-78	Research Drive - backyard of 92 Research Dr. - North outfall	Noroton River	<b>A</b>	discharge to impaired waters

DIS-79	Research Drive - backyard of 92 Research Dr. - South outfall	Noroton River	<b>A</b>	discharge to impaired waters
DIS-80	Innaccurate location - eliminated		-	
DIS-81	Innaccurate location - eliminated		-	
DIS-82	Old Colony Road - backyard of 3 Old Colony	Noroton River	<b>B</b>	discharge to impaired waters
DIS-83	Hope St. bridge at Mead St. - south side of bridge	Noroton River	<b>B</b>	discharge to impaired waters
DIS-84	Camp Ave. - located at southeast corner of prop. Adj. to RR tracks	Noroton River	<b>B</b>	discharge to impaired waters
DIS-85	Hope St - adjacent to springdale school ballfield	Noroton River	<b>B</b>	discharge to impaired waters
DIS-86	Minivale Rd. - backyard of 158 /156 Minivale rd.	Noroton River	<b>B</b>	discharge to impaired waters
DIS-87	Innaccurate location - eliminated		-	
DIS-88	Oenoke Place - backyard of Riveroak condos 40 Oenoke	Noroton River	<b>B</b>	discharge to impaired waters
DIS-89	Ceretta St. - end of street	Noroton River	<b>B</b>	discharge to impaired waters
DIS-90	Innaccurate location - eliminated		-	
DIS-91	Innaccurate location - eliminated		-	
DIS-92	Innaccurate location - eliminated		-	
DIS-93	Innaccurate location - eliminated		-	
DIS-94	Columbus Place - backyard of 71 / 65 Columbus Place	Noroton River	<b>A</b>	2008 photo shows possible illicit discharge
DIS-95	River Place - end of street	Noroton River	<b>B</b>	discharge to impaired waters
DIS-96	Garland Drive - adjacent to 92 Camp Ave.	Noroton River	<b>B</b>	discharge to impaired waters
DIS-97	Regent Court - backyard of 46 Regent Court	Noroton River	<b>C</b>	discharge to impaired waters
DIS-98	Regent Court - backyard of 32 Regent Court	Noroton River	<b>C</b>	discharge to impaired waters
DIS-99	Regent Court - backyard of 12 Regent Court	Noroton River	<b>C</b>	discharge to impaired waters
DIS-100	Joffre Ave. - backyard of 133 Joffre	Noroton River	<b>C</b>	discharge to impaired waters
DIS-101	Innaccurate location - eliminated		-	
DIS-102	Loveland Road - backyard of 305 Loveland Road	Undetermined	<b>C</b>	discharge to impaired waters
DIS-103	Crestwood Drive - backyard of 90 Crestwood Dr.	Undetermined	<b>C</b>	discharge to impaired waters
DIS-104	White Birch Lane - S. side of bridge	Undetermined	<b>C</b>	discharge to impaired waters
DIS-105	Innaccurate location - eliminated		-	
DIS-106	Dannell Drive - E. side of headwall	Undetermined	<b>C</b>	discharge to impaired waters
DIS-107	Dannell Drive - W. side of headwall	Undetermined	<b>C</b>	discharge to impaired waters
DIS-108	Woods End Road - backyard of 65 Woods End Road	Undetermined	<b>C</b>	discharge to impaired waters
DIS-109	Woods End Road - E. side of Stamford Land cons. Trust parcel	Undetermined	<b>C</b>	discharge to impaired waters
DIS-110	Innaccurate location - eliminated		-	
DIS-111	Innaccurate location - eliminated		-	
DIS-112	Woods End Road - backyard of 57 Woods End Road	Undetermined	<b>C</b>	discharge to impaired waters
DIS-113	Innaccurate location - eliminated		-	
DIS-114	Innaccurate location - eliminated		-	
DIS-115	Innaccurate location - eliminated		-	
DIS-116	Haig Ave. - located in southern park area	Noroton River	<b>A</b>	possible recreational contact with water
DIS-117	Haig Ave. - located in northern park area	Noroton River	<b>A</b>	possible recreational contact with water
DIS-118	Innaccurate location - eliminated		-	
DIS-119	Innaccurate location - eliminated		-	
DIS-120	Innaccurate location - eliminated		-	
DIS-121	Davenport Drive	Stamford Harbor / Long Island Sound	<b>A</b>	possible recreational contact with water

DIS-122	Davenport Street - O & G	Stamford Harbor / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-123	Davenport Street - O & G	Stamford Harbor / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-124	Innaccurate location - eliminated		-	
DIS-125	Florence Court - backyard of 26 Florence Ct.	Rippowam River	<b>C</b>	
DIS-126	Southfield Avenue - behind 126 Southfield (marshall trucking)	Stamford Harbor / Long Island Sound	<b>A</b>	Complaint of possible ID in area
DIS-127	Westover Lane - south side of road	Mianus River	<b>A</b>	Complaint of possible ID in area
DIS-128	Innaccurate location - eliminated		-	
DIS-129	Westover Lane - north side of road /backyard of 43 Westover Ln.	Minanus River	<b>A</b>	Complaint of possible ID in area
DIS-130	Weed Ave. - adjacent to Birch St.	Holly Pond / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-131	Riverside Ave. - located in backyard of 19 Riverside	Rippowam River	<b>C</b>	
DIS-132	Weed Ave. and Matthews St. - South outfall	Holly Pond / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-133	Weed Ave. and Matthews St. - North outfall	Holly Pond / Long Island Sound	<b>A</b>	possible recreational contact with water
DIS-134	Innaccurate location - eliminated		-	
DIS-135	Crestview Ave. - backyard of 87 Crestview Ave.	Noroton River	<b>C</b>	discharge to impaired waters
DIS-136	Innaccurate location - eliminated		-	
DIS-137	Innaccurate location - eliminated		-	
DIS-138	Innaccurate location - eliminated		-	
DIS-139	Overhill Rd. and Barncroft Rd.	Rippowam River	<b>C</b>	discharge to impaired waters
DIS-140	Innaccurate location - eliminated		-	
DIS-141	Innaccurate location - eliminated		-	
DIS-142	Barncroft Road	Rippowam River	<b>C</b>	discharge to impaired waters
DIS-143	Innaccurate location - eliminated		-	
DIS-144	Innaccurate location - eliminated		-	
DIS-145	Kenilworth Drive East	Westcott Cove / Long Island Sound	<b>B</b>	possible recreational contact with water
DIS-146	Innaccurate location - eliminated		-	
DIS-147	Innaccurate location - eliminated		-	
DIS-148	Innaccurate location - eliminated		-	
DIS-149	Innaccurate location - eliminated		-	
DIS-150	Innaccurate location - eliminated		-	
DIS-151	Innaccurate location - eliminated		-	
DIS-152	Innaccurate location - eliminated		-	
DIS-153	Innaccurate location - eliminated		-	
DIS-154	Innaccurate location - eliminated		-	

Totals - 46 'A' Priority Ranking - to be screened by 6/30/2015  
23 'B' Priority Ranking - to be screened by 6/30/2016  
23 'C' Priority Ranking - to be screened by 6/30/2017  
**92** Total Outfalls screened by 6/30/2017

## Appendix P

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### IDDE Screening Checklist

## IDDE Screening Checklist

### A. Location Information

Outfall Location: \_\_\_\_\_

Sampler: \_\_\_\_\_

Date: \_\_\_\_\_

Time (first visit): \_\_\_\_\_ Time (second visit): \_\_\_\_\_

*Second Visit required if there is no flow but sign of discharge during first visit.*

Date and Time of Prior Storm Event (>0.1 inch): \_\_\_\_\_

Are there previous photos?    Y    N

*Take photograph of outfall. Take from same location as previous if answered Yes on above question.*

### B. Physical Condition of Outfall:

Intact? Collapse? Structural Defects? \_\_\_\_\_

\_\_\_\_\_

Deposition or Erosion? \_\_\_\_\_

\_\_\_\_\_

	Indicators of Illicit Discharge
Color	
Odor	
Oil Sheen	
Foam	
Soap Suds	
Slime	
Sanitary Solids	
Oil Sheen	

Is flow observed?    Y    N

*If yes, continue to Section C. If no, skip to Section D.*

### C. Flow Characteristics and Sampling

Estimate Flow: \_\_\_\_\_

Describe Method of Flow Estimation: \_\_\_\_\_

\_\_\_\_\_

Sample for following parameters:

- Lab Sampling
  - E.Coli
  
- Field Sampling
  - pH
  - Temperature
  - Conductivity
  - Turbidity
  - Dissolved Oxygen
  - Surfactants (as MBAS)
  - Potassium
  - Ammonia

### D. Conclusion

Should the outfall be considered for IDDP prioritization?    Y    N

*If no flow is observed, but there are indicators of discharge, return in 4 to 24 hrs and repeat.*

## Appendix Q

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### Sample Smoke Testing Notifications



## **Smoke and Dye Testing (SDT) Procedures**

Prior to initiating smoke and/or dye testing activities, the WPCA implements the following procedures:

### **Smoke Testing**

1. Via mapping and/or field verification information, area(s) of interest are determined;
2. Tags are hand delivered to the representatives/owners and/or fastened to door knobs of the buildings potentially affected. This notification process also describes when the planned smoke test activity will commence during a certain time period;
3. On the day of the smoke test activity, Stamford's central fire house and police department are notified of the time and where will occur within the designated area; and,
4. Results from this activity are summarized to the master mechanic and supervising engineer to determine appropriate course of action.

### **Dye Testing**

1. Owners of buildings are notified via phone or in-person of the need to complete a dye test;
2. Once an agreed date and time is reached, WPCA crew arrive bearing proper credentials, and one-member enters the building to introduce the dye into the their sanitary wastewater discharge, while the other inspects the lateral line entering the City's sanitary line; and,
3. Results from this activity are completed on a dye test form, and copies are provided to the master mechanic and supervising engineer to determine appropriate course of action.



## **NOTICE**

The City of Stamford is conducting a smoke test on the storm or sanitary lines in your area. This operation involves blowing smoke into the sewer lines to determine leaks and possible health hazards. More than likely, smoke will not enter your home or building. But if it does, do not be alarmed. The smoke is white and does not leave a residue. Please open all your windows to aid in the circulation of this smoke. If it does enter your home or building, please notify our field personnel on the street or call 977-4596 or 977-4590.

Smoke testing on your street will be conducted on:

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Thank you,  
Water Pollution Control Authority  
Stamford Public Works Department

William P. Brink, P.E. BCEE  
Executive Director  
Stamford Water Pollution Control Authority  
203-977-5809  
wbrink@ci.stamford.ct.us



Michael Handler, Chairman  
SWPCA Board of Directors  
Stamford Water Pollution Control Authority  
203-977-4182  
mhandler@ci.stamford.ct.us

**Smoke Testing Activity  
263 Tresser Boulevard**

**July 23, 2014 8:30 a.m.**

**Attention Occupants:**

Property managers for this building, RFR Realty, L.L.C, have requested Stamford WPCA to assist in conducting a planned smoke testing activity for the building at 263 Tresser Boulevard on July 23, 2014 between 8:30 a.m. and 9:30 a.m.

Purpose is to verify plumbing connections/conveyances are proper and in good condition throughout the building.

**General Overview of Smoke Testing Activity:**

Utilities have safely used smoke testing for many years. It helps to determine where other sources of water are entering the sewer system and identify system improvement needs, as well as, identify potential plumbing deficiencies within a building.

During smoke testing, Stamford WPCA crews force smoke into sewer pipes through manholes. The smoke helps find cracks in pipes, uncapped customer lateral cleanouts, and prohibited connections that allow rain or groundwater into the sewer system.

Stamford WPCA has already coordinated with the property owner's representatives in advance of smoke testing to explain the process, and contractors leave door hangers one to three days before testing on a particular street. The letters and door hangers include a customer support number, so customers can call if they have questions or concerns about the testing. Stamford WPCA also notifies Stamford Fire and Police Departments in advance of the smoke testing activity, in the event they receive inquiries.

The smoke is non-toxic and non-staining, is not a fire hazard, and will not harm children, pets, or plants. Anyone with respiratory problems, however, should avoid breathing the smoke to prevent irritation.

For your peace of mind, you might want to contact RFP Realty, L.L.C. at the number below to request notification immediately prior to the test to help avoid any confusion or alarm.

**Prior to the Smoke Test:**

Stamford WPCA asks customers to run or pour about a pint of water into any garage or basement floor drains and unused sinks to fill the P-trap. The trap normally has water in it, but if the drain has not been used recently, the water may have evaporated. The water will help keep smoke from the testing from entering through the drain.

**During the Smoke Test:**

Don't be alarmed if you see smoke coming from vent stacks on buildings or holes in the ground. If the smoke enters your building, it may set off your smoke alarm. The smoke is harmless and should dissipate quickly - or you can open doors and windows to help ventilate smoke.

If you poured water down any unused drains but smoke still enters your building, it may indicate defects in your plumbing. Note the location of the smoke, and call Stamford WPCA and RFR Realty, L.L.C.'s property managers at the numbers provided below.

If you have questions about this planned smoke testing activity, please call Stamford WPCA at 203-977-5768 or Ed Wissell of RFR Realty, L.L.C. at 203-328-3647.

Sincerely,

Stamford WPCA

## Appendix R

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### Discharges to Impaired Water Bodies

ID	Longitude	Latitude	Water_Name	ID305B	SWP_Concer
DIS-1	-73.53070654	41.03683461	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-3	-73.53286456	41.03283373	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-4	-73.53216794	41.03171921	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-5	-73.53107561	41.02983915	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-6	-73.52994035	41.0433377	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-8	-73.531424	41.0459276	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-9	-73.53069875	41.04477118	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-23	-73.54577186	41.04939545	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-45	-73.5452535	41.0482699	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-68	-73.5343602	41.04861156	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-74	-73.53412703	41.04870736	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-122	-73.54594786	41.04126481	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-123	-73.54624185	41.04264287	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-126	-73.5450659	41.03678456	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-118	-73.5308494	41.04498782	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-201	-73.53625776	41.03644317	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-203	-73.54454605	41.03358373	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-435	-73.53434318	41.04862616	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-538	-73.54521321	41.04814151	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-663	-73.52938001	41.04006169	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-664	-73.52929363	41.04017967	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-665	-73.5288973	41.04139261	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-784	-73.5450077	41.0459321	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-962	-73.52889231	41.04141105	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-965	-73.5305773	41.04226458	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-1347	-73.53405119	41.0487324	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-1429	-73.54481506	41.04408478	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-1465	-73.53099734	41.04523065	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-1466	-73.53009055	41.04382853	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-1467	-73.53039273	41.04449992	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-30	-73.50752936	41.06010599	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-130	-73.50528469	41.05748585	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-132	-73.50384763	41.05497725	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-55	-73.50373693	41.05256273	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1277	-73.50268709	41.04869022	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1282	-73.50597674	41.05806812	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1283	-73.50634365	41.05836469	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1285	-73.50596608	41.05805481	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1286	-73.50376923	41.05369603	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-1289	-73.50745827	41.05929213	LIS WB Inner - Holly Pond, Stamford	CT-W1_016-SB	Bacteria
DIS-14	-73.52422699	41.02016392	LIS WB Shore - Stamford Harbor, Stamford	CT-W2_019	Bacteria

DIS-15	-73.52162143	41.02170755 LIS WB Shore - Stamford Harbor, Stamford	CT-W2_020	Bacteria
DIS-17	-73.51735718	41.02952411 LIS WB Shore - Stamford Harbor, Stamford	CT-W2_021	Bacteria
DIS-19	-73.52269678	41.03505016 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-916	-73.52235251	41.03902458 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-917	-73.52120767	41.04237798 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-918	-73.52017262	41.04190892 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-923	-73.52107677	41.03903326 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-924	-73.51960277	41.03986805 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-925	-73.51943379	41.03990782 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-926	-73.51891183	41.04016102 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-927	-73.51907325	41.04043504 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-949	-73.52281309	41.04216098 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-950	-73.5229248	41.04265693 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-951	-73.52183471	41.04137479 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-952	-73.51675665	41.03941912 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-993	-73.5133487	41.03951384 LIS WB Shore - Westcott Cove, Stamford	CT-W2_018	Bacteria
DIS-194	-73.53751912	41.12718695 Rippowam River-02	CT7405-00_02	Other Pollutant of Concern
DIS-535	-73.54174914	41.13480718 Rippowam River-03	CT7405-00_03	Other Pollutant of Concern
DIS-764	-73.6093892	41.12336172 Mianus River-02	CT7407-00_02	Other Pollutant of Concern
DIS-765	-73.60875017	41.12321818 Mianus River-03	CT7407-00_03	Other Pollutant of Concern
DIS-13	-73.54670353	41.05896479 Rippowam River-01	CT7405-00_01	Other Pollutant of Concern
DIS-37	-73.54593942	41.05728218 Rippowam River-02	CT7405-00_02	Other Pollutant of Concern
DIS-69	-73.5527016	41.06781985 Rippowam River-03	CT7405-00_03	Other Pollutant of Concern
DIS-70	-73.54596762	41.06447743 Rippowam River-04	CT7405-00_04	Other Pollutant of Concern
DIS-71	-73.54598323	41.0644935 Rippowam River-05	CT7405-00_05	Other Pollutant of Concern
DIS-73	-73.54452169	41.06273068 Rippowam River-06	CT7405-00_06	Other Pollutant of Concern
DIS-131	-73.54995075	41.06641352 Rippowam River-07	CT7405-00_07	Other Pollutant of Concern
DIS-67	-73.56312567	41.09741435 Rippowam River-08	CT7405-00_08	Other Pollutant of Concern
DIS-168	-73.55685512	41.08636277 Rippowam River-09	CT7405-00_09	Other Pollutant of Concern
DIS-180	-73.55856871	41.10560778 Rippowam River-10	CT7405-00_10	Other Pollutant of Concern
DIS-181	-73.55887646	41.10550349 Rippowam River-11	CT7405-00_11	Other Pollutant of Concern
DIS-211	-73.55578199	41.08346028 Rippowam River-12	CT7405-00_12	Other Pollutant of Concern
DIS-234	-73.54903206	41.06581148 Rippowam River-13	CT7405-00_13	Other Pollutant of Concern
DIS-236	-73.55265424	41.0674817 Rippowam River-14	CT7405-00_14	Other Pollutant of Concern
DIS-240	-73.54631991	41.11304088 Rippowam River-15	CT7405-00_15	Other Pollutant of Concern
DIS-243	-73.55473504	41.06586538 Rippowam River-16	CT7405-00_16	Other Pollutant of Concern
DIS-244	-73.55648151	41.06545571 Rippowam River-17	CT7405-00_17	Other Pollutant of Concern
DIS-248	-73.54434032	41.06227386 Rippowam River-18	CT7405-00_18	Other Pollutant of Concern
DIS-275	-73.55722557	41.0708498 Rippowam River-19	CT7405-00_19	Other Pollutant of Concern
DIS-276	-73.55692233	41.07247668 Rippowam River-20	CT7405-00_20	Other Pollutant of Concern
DIS-298	-73.55619192	41.08135024 Rippowam River-21	CT7405-00_21	Other Pollutant of Concern
DIS-299	-73.55661769	41.07921457 Rippowam River-22	CT7405-00_22	Other Pollutant of Concern

DIS-300	-73.55647359	41.0800413	Rippowam River-23	CT7405-00_23	Other Pollutant of Concern
DIS-306	-73.5571874	41.06808125	Rippowam River-24	CT7405-00_24	Other Pollutant of Concern
DIS-406	-73.54693517	41.064983	Rippowam River-25	CT7405-00_25	Other Pollutant of Concern
DIS-727	-73.54947274	41.11368498	Rippowam River-26	CT7405-00_26	Other Pollutant of Concern
DIS-759	-73.55965328	41.09001151	Rippowam River-27	CT7405-00_27	Other Pollutant of Concern
DIS-760	-73.55973686	41.09013229	Rippowam River-28	CT7405-00_28	Other Pollutant of Concern
DIS-761	-73.55958149	41.0903283	Rippowam River-29	CT7405-00_29	Other Pollutant of Concern
DIS-762	-73.55779057	41.06615531	Rippowam River-30	CT7405-00_30	Other Pollutant of Concern
DIS-763	-73.55761204	41.06616395	Rippowam River-31	CT7405-00_31	Other Pollutant of Concern
DIS-769	-73.55480476	41.11140888	Rippowam River-32	CT7405-00_32	Other Pollutant of Concern
DIS-770	-73.55477241	41.11123848	Rippowam River-33	CT7405-00_33	Other Pollutant of Concern
DIS-830	-73.55667659	41.10679112	Rippowam River-34	CT7405-00_34	Other Pollutant of Concern
DIS-936	-73.54032908	41.11782124	Rippowam River-35	CT7405-00_35	Other Pollutant of Concern
DIS-937	-73.54074046	41.11723744	Rippowam River-36	CT7405-00_36	Other Pollutant of Concern
DIS-983	-73.55585207	41.06524067	Rippowam River-37	CT7405-00_37	Other Pollutant of Concern
DIS-996	-73.54746542	41.11340845	Rippowam River-38	CT7405-00_38	Other Pollutant of Concern
DIS-1001	-73.55647255	41.08556014	Rippowam River-39	CT7405-00_39	Other Pollutant of Concern
DIS-1102	-73.55691201	41.0709018	Rippowam River-40	CT7405-00_40	Other Pollutant of Concern
DIS-1206	-73.55912114	41.08963307	Rippowam River-41	CT7405-00_41	Other Pollutant of Concern
DIS-1294	-73.55650611	41.08487971	Rippowam River-42	CT7405-00_42	Other Pollutant of Concern
DIS-1295	-73.55650795	41.0848841	Rippowam River-43	CT7405-00_43	Other Pollutant of Concern
DIS-1312	-73.55942718	41.089627	Rippowam River-44	CT7405-00_44	Other Pollutant of Concern
DIS-1339	-73.55270039	41.06783716	Rippowam River-45	CT7405-00_45	Other Pollutant of Concern
DIS-1353	-73.54869582	41.06590626	Rippowam River-46	CT7405-00_46	Other Pollutant of Concern
DIS-1418	-73.54427935	41.06211993	Rippowam River-47	CT7405-00_47	Other Pollutant of Concern
DIS-1423	-73.54684641	41.06017614	Rippowam River-48	CT7405-00_48	Other Pollutant of Concern
DIS-1440	-73.55830329	41.08890366	Rippowam River-49	CT7405-00_49	Other Pollutant of Concern
DIS-1441	-73.55762031	41.06608823	Rippowam River-50	CT7405-00_50	Other Pollutant of Concern
DIS-1445	-73.55949313	41.10114224	Rippowam River-51	CT7405-00_51	Other Pollutant of Concern
DIS-1472	-73.55686437	41.06862585	Rippowam River-52	CT7405-00_52	Other Pollutant of Concern
DIS-1482	-73.54395301	41.05549613	Rippowam River-53	CT7405-00_53	Other Pollutant of Concern
DIS-572	-73.57692318	41.07263777	Mianus River-02	CT7407-00_02	Other Pollutant of Concern
DIS-753	-73.58089663	41.08066091	Mianus River-03	CT7407-00_03	Other Pollutant of Concern
DIS-867	-73.5761067	41.07450129	Mianus River-04	CT7407-00_04	Other Pollutant of Concern
DIS-868	-73.57631782	41.07451645	Mianus River-05	CT7407-00_05	Other Pollutant of Concern
DIS-84	-73.5147214	41.09270695	Noroton River-02	CT7403-00_02	Other Pollutant of Concern
DIS-36N	-73.5181464	41.07996353	Noroton River-01	CT7403-00_01	Other Pollutant of Concern
DIS-36S	-73.51813766	41.07994834	Noroton River-02	CT7403-00_02	Other Pollutant of Concern
DIS-35	-73.5180997	41.08064887	Noroton River-03	CT7403-00_03	Other Pollutant of Concern
DIS-58	-73.51111612	41.07205769	Noroton River-04	CT7403-00_04	Other Pollutant of Concern
DIS-62	-73.50997245	41.06713772	Noroton River-05	CT7403-00_05	Other Pollutant of Concern
DIS-63	-73.51009034	41.06862463	Noroton River-06	CT7403-00_06	Other Pollutant of Concern



DIS-75	-73.51779319	41.07939507	Noroton River-07	CT7403-00_07	Other Pollutant of Concern
DIS-76	-73.51766278	41.07813885	Noroton River-08	CT7403-00_08	Other Pollutant of Concern
DIS-78	-73.5171545	41.07626596	Noroton River-09	CT7403-00_09	Other Pollutant of Concern
DIS-79	-73.51714128	41.07624539	Noroton River-10	CT7403-00_10	Other Pollutant of Concern
DIS-892	-73.50879724	41.0639007	Noroton River-11	CT7403-00_11	Other Pollutant of Concern
DIS-893	-73.50879821	41.06389348	Noroton River-12	CT7403-00_12	Other Pollutant of Concern
DIS-1266	-73.51452277	41.07364018	Noroton River-13	CT7403-00_13	Other Pollutant of Concern
DIS-1267	-73.51451575	41.07363079	Noroton River-14	CT7403-00_14	Other Pollutant of Concern
DIS-1268	-73.51507717	41.07501186	Noroton River-15	CT7403-00_15	Other Pollutant of Concern
DIS-1338	-73.5156059	41.0752238	Noroton River-16	CT7403-00_16	Other Pollutant of Concern
DIS-20	-73.54593821	41.0504527	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-407	-73.5454758	41.04571767	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-768	-73.54562904	41.04798505	LIS WB Inner - Stamford Harbor (Inner), Stamford	CT-W1_018-SB	Nitrogen and Phosphorus
DIS-204	-73.51465381	41.08772012	CT7403-00_01	Noroton River-01	Other Pollutant of Concern
DIS-89	-73.5139078	41.09613621	CT7403-00_02	Noroton River-02	Other Pollutant of Concern
DIS-95	-73.51152265	41.10008084	CT7403-00_03	Noroton River-03	Other Pollutant of Concern
DIS-96	-73.51442892	41.09549332	CT7403-00_04	Noroton River-04	Other Pollutant of Concern
DIS-97	-73.51117004	41.10107156	CT7403-00_05	Noroton River-05	Other Pollutant of Concern
DIS-98	-73.51058131	41.10177718	CT7403-00_06	Noroton River-06	Other Pollutant of Concern
DIS-99	-73.51078974	41.10243437	CT7403-00_07	Noroton River-07	Other Pollutant of Concern
DIS-205	-73.51570174	41.08963148	CT7403-00_08	Noroton River-08	Other Pollutant of Concern
DIS-1412	-73.51454326	41.09519702	CT7403-00_09	Noroton River-09	Other Pollutant of Concern
DIS-938	-73.5409017	41.11901634	CT7405-00_02	Rippowam River-02	Other Pollutant of Concern
DIS-1469	-73.54085758	41.12454344	CT7405-00_03	Rippowam River-03	Other Pollutant of Concern

## Appendix S

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### In-stream Monitoring Field Data Sheet