STORMWATER MANAGEMENT PLAN

City of Bridgeport

March 24, 2017

Prepared By
City of Bridgeport

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List of Abbreviations, Acronyms and Initialisms

BMPs – best management practices

CA – City Attorney

ConnDOT – Connecticut Department of Transpiration

CT – Connecticut

CT DEEP – Connecticut Department of Energy and Environmental Protection

DCIA – directly connected impervious area

DPF – Department of Public Facilities

ID – identification number

USEPA – United States Environmental Protection Agency

IDDE – illicit discharge detection and elimination

LID – low-impact development

MCM – minimum control measure

MS4 – municipal separate storm sewer system

P&Z – planning and zoning

UA – urbanized area

UCONN NEMO – University of Connecticut Nonpoint Education for Municipal Officials

POC – pollutant of concern

SMP – stormwater management plan

SSO – sanitary sewer overflow

TMDL – total maximum daily load

WPCA – Water Pollution Control Authority

Stormwater Management Plan

Bridgeport, Connecticut

Section I: Introduction

This section includes general information on the City of Bridgeport as well as background information on Municipal Separate Storm Sewer System (MS4) permitting. Additionally, contact information and a summary of the required minimum control measures (MCMs) is presented.

I.1 City of Bridgeport Background

Bridgeport is the largest city in the State of Connecticut. Located in Fairfield County at the mouth of the Pequonnock River on Long Island Sound, with a land area of 19.4 square miles, the City has a population of approximately 147,000, making it also the 5th most populous in New England. It is bordered by the Towns of Trumbull to the north, Fairfield to the west, and Stratford to the east. The Greater Bridgeport area is the 48th largest urban area in the United States and forms part of the Greater New York City area.

The City of Bridgeport Water Pollution Control Authority (WPCA) operates two advanced secondary wastewater treatment plants and the sewer system within the City of Bridgeport. The West Side has a design flow of 30 mgd and the East Side Plant has a design flow of 10 mgd. The wastewater collection system serves the City of Bridgeport, the southern portion of Trumbull, and small areas of Stratford and Fairfield. Within the City of Bridgeport the collection system consists of approximately 170 miles of sanitary sewers and approximately 113 miles of combined sewers. There are eight wastewater pumping stations as well as metering stations, and eight siphons within the collection system.

I.2 Regulatory Update

The Connecticut Department of Energy and Environmental Protection (CT DEEP) released the new Small MS4 General Permit on January 20, 2016 with an effective date of July 1, 2017. This document meets the permit requirement for each small MS4 permittees are to submit a Stormwater Management Plan (SMP) on April 1, 2017, 90 days prior to the effective date. This new permit expands on the requirements specified in the permittee's current MS4 permit that was made effective in January 2004. Specific updates to each of the six MCMs and wet weather monitoring are described in this SMP.

I.3 Permit Registration Requirements

- The permit is effective from July 1, 2017 to June 30, 2022.
- On April 1, 2017, the SMP, registration form, and electronic copy are due to CT DEEP.

- The SMP will be posted for public review and comment by April 1, 2017. Full development and implementation of the SMP is required within five years, specifically June 30, 2022.
- Annual reports are due to CT DEEP on April 1st of each year. On February 15th, 45 days prior to each Annual report submission a draft copy shall be made available for public review and comment. After review and finalization, the report will be submitted to CT DEEP and made available to the public.

I.4 Area Subject to Plan

The plan will implement designated MCMs throughout the boundaries of the City of Bridgeport unless otherwise noted in a MCM in the following sections.

I.5 Contact Information

William E. Robinson, Acting General Manager
City of Bridgeport WPCA
695 Seaview Avenue
Bridgeport CT 06607
203-332-5550

Jon Urquidi, P. E., City Engineer
45 Lyon Terrace
Bridgeport CT 06604
203-576-3960

John Ricci, Director
Public Facilities
999 Broad Street
Bridgeport CT 06604
203-576-7130

I.6 Water Quality Summary

See Table 1 – Surface Water Quality Classification
See Table 2 – Impaired waterbodies in the City of Bridgeport
See Table 3 TMDLs Applicable to City of Bridgeport waterbodies

I.6 Water Quality Summary and Impaired Waters

The City of Bridgeport lies within seven sub-regional watersheds including the Ash Creek, Bruce Brook, Lewis Gut, Mill River, Pequonnock River, Southwest Shoreline, and Yellow Mill Channel basins. There are thirty-two local drainage basins in the City of West Haven, these can be seen in **Table 1**. The main surface water bodies in Bridgeport, CT are Ash Creek, Bruce Brook, Island Brook, Pequonnock River, and Rooster River. These waterbodies eventually discharge to Long Island Sound, through Bridgeport and Black Rock Harbors.

Table 1: Surface Water Quality Classifications

Drainage Basin Number	Sub Regional Basin Name	Surface Water Body & Classification	Impaired per Water Quality Standards
7108-00-2-R2	Mill River	None	N/A
7106-02-1-L3	Ash Creek	Horse Tavern Brook – N/A	Not Assessed
7106-02-1*	Ash Creek	Rooster River – N/A Old Sherwood Pond – N/A	Not Assessed Not Assessed
7105-10-1-L3	Pequonnock River	Island Brook – N/A Lake Forest - A	Not Assessed No
7105-10-1-L2	Pequonnock River	None	N/A
7105-00-2-L2	Pequonnock River	Bunnell's Pond - B Pequonnock River - A	No Yes
7103-00-1	Yellow Mill Channel	None	N/A
7103-01-1	Yellow Mill Channel	None	N/A
7103-02-1	Yellow Mill Channel	None	N/A
7103-00-2-L1	Yellow Mill Channel	None	N/A
7103-00-2-L2	Yellow Mill Channel	None	N/A
7103-00-2-L3	Yellow Mill Channel	Success Lake - A	Yes
7103-00-2-L4	Yellow Mill Channel	Stillman Pond - B	Yes
7102-00-1-L2	Bruce Brook	Bruce Brook - B Bruce Pond - B	Yes No
7102-00-1	Bruce Brook	Bruce Brook – B	No
7000-04-1	Southwest Shoreline	Inner Bridgeport Harbor - SB Johnson's Creek – N/A	Yes Not Assessed
7000-02-1	Southwest Shoreline	Inner Bridgeport Harbor – SB Long Beach Estuary, Stratford - SA	Yes Yes
7101-00-1	Lewis Gut	Inner Bridgeport Harbor - SB	Yes
7103-00-2-R1	Yellow Mill Channel	Barnum Avenue Pond – B Inner Bridgeport Harbor - SB	Yes Yes
7103-00-2-L5	Yellow Mill Channel	Arms Pond - B Remington Arms Company Pond - B	Yes Yes
7105-00-2-R9	Pequonnock River	Pequonnock River - B Inner Bridgeport Harbor - SB	No Yes
7105-00-2-R10	Pequonnock River	Inner Bridgeport Harbor - SB	Yes
7000-06-1	Southwest Shoreline	Seaside Park Beach Estuary - SA Inner Bridgeport Harbor - SB	Yes Yes
7105-10-1	Pequonnock River	Island Brook - B Inner Bridgeport Harbor - SB	No Yes
7105-10-1-L6	Pequonnock River	Island Brook – N/A	Not Assessed
7105-10-1-L5	Pequonnock River	Island Brook – N/A	Not Assessed
7105-10-1-L4	Pequonnock River	Lake Forest - A Island Brook N/A Island Brook Lagoon – N/A	No Not Assessed Not Assessed

7106-00-2-R1	Ash Creek	Ash Creek - A Inner Ash Creek - SB Rooster River - A	No Yes Yes
7000-07-1	Southwest Shoreline	Burr Creek – N/A Cedar Creek – N/A Inner Black Rock Harbor - SB Outer Bridgeport Harbor, Fairfield - SA	Not Assessed Not Assessed Yes Yes
7106-00-2-R2	Ash Creek	Inner Ash Creek - SB Outer Bridgeport Harbor, Fairfield - SA	Yes Yes
7000-08-1	Southwest Shoreline	Inner Ash Creek - SB Outer Bridgeport Harbor, Fairfield - SA	Yes Yes
7000-05-1	Southwest Shoreline	Inner Bridgeport Harbor -SB	Yes

The following descriptions of water quality classifications are from the Connecticut Environmental Conditions On-line Maps and Geospatial Data for Planning, Management, Education and Research Complete Resource Guide.

Class AA: Inland water source of uniform good to excellent quality. These waters are very close to natural quality. Inland surface water with designated uses that include existing or proposed drinking water supply, fish and wildlife habitat, recreational use (may be restricted), agricultural and industrial supply.

Class A: Inland water source of uniform good to excellent quality. Inland Surface water is known or presumed to meet Water Quality Criteria which support designated uses, which may include potential drinking water supply; fish and wildlife habitat; recreational use; agricultural, industrial supply and other legitimate uses, including navigation.

Class B: This is considered an inland surface water source that may be of good to excellent quality. Uses include fishing, swimming, and recreation, industrial supply, and agricultural use. These water generally have a healthy aquatic habitat, are generally rivers or large streams, and may have point source wastewater discharge.

Class SA: Coastal or marine surface water of uniform good to excellent quality. These waters are very close to natural quality. Uses include fishing, swimming, and recreation. These waters are a healthy marine habitat, and direct shellfish consumption is possible. These waters usually do not accept treated wastewater.

Class SB: Coastal or marine surface water of uniform good quality. Uses include fishing, swimming, and recreation, industrial supply, commercial shellfish harvesting (may require purification). These waters generally have a healthy marine habitat, and may have point source wastewater discharges.

From the *2014 State of Connecticut Integrated Water Quality Report*, **Table 2** summarizes water bodies classified as impaired in the City of Bridgeport. Impaired waters are those which CT DEEP has recorded, credible information indicating that the water quality standard is not attained. The determination of impaired waters differs from surface water classifications as the classifications are only assigned to detail the designated uses of each surface water and set water quality standards.

Table 2: Impaired Waterbodies in the City of Bridgeport

Waterbody ID	Water Segment Description	Water Segment Length (mi)	Impaired Use	Pollutant	Cause / Potential Source
CT7105-00_02 River	Pequonnock River-02	0.4	Habitat for Fish, Other Aquatic Life and Wildlife Recreation	Cause Unknown	Potential sources include permitted and nonpermitted stormwater, municipal discharges illicit discharges, remediation sites, groundwater contamination
CT7103-00-2-L3_01 Lake	Success Lake	0.25	Habitat for Fish, Other Aquatic Life and Wildlife	Lead Mercury	Potential sources include industrial point source discharges, illicit discharges, remediation sites, groundwater contamination
CT7103-00-2-L4_01 Lake	Stillman Pond	0.3	Fish Consumption	Cadmium Lead Mercury	Potential sources include industrial point source discharges, illicit discharges, remediation sites, groundwater contamination .
CT7103-00-2-L5_01 Lake	Pembroke Lakes (Arms Pond, Remington Arms Company Pond, Barnum Avenue Pond)	0.35	Habitat for Fish, Other Aquatic Life and Wildlife	Lead Polychlorinated biphenyls	Potential sources include industrial point source discharges, illicit discharges, remediation sites, groundwater contamination, combined sewer overflow
CT7102-00_02 River	Bruce Brook (Bridgeport/Stratford)-02	0.2	Habitat for Fish, Other Aquatic Life and Wildlife Recreation	Cause Unknown	Potential sources include industrial point source discharges, remediation sites, groundwater contamination
CT7106-00_01 River	Rooster River (Fairfield) – 01	1.95	Recreation	Escherichia coli	None Listed
CT-W1_003-SB Estuary	LIS WB Inner – Ash Creek, Fairfield	2.0	Commercial Shellfish Harvesting Where Authorized Habitat for Marine Fish, Other Aquatic Life and Wildlife Recreation	Fecal Coliform Gold Silver Enterococcus	Potential sources include permitted and nonpermitted stormwater, illicit discharge, insufficient septic systems, marinas, nuisance wildlife/pets Potential source include industrial point source discharges, remediation sites, groundwater contamination
CT-W2_004 Estuary	LIS WB Shore – Outer Bridgeport Harbor, Fairfield	0.9	Commercial Shellfish Harvesting Where Authorized	Fecal Coliform	None Listed
CT-W1_002-SB Estuary	LIS WB Inner – Black Rock Harbor, Bridgeport	2.1	Habitat for Marine Fish, Other Aquatic Life and Wildlife	DO saturation Estuarine Bioassessments Nutrient/ Eutrophication Biological Indicators Oil and Grease Polychlorinated Biphenyls Polycyclic Aromatic Hydrocarbons (PAHs)	Potential sources industrial point source discharges, municipal discharges, landfills, illicit discharges, remediation sites, groundwater contamination, on-site treatment systems, combined sewer overflow Potential sources include permitted and non-permitted stormwater, illicit discharge, CSOs/SSOs,

				(Aquatic Ecosystems)	marinas, insufficient septic systems, nuisance wildlife/pets
CT-W2_003 Estuary	LIS WB Shore – Seaside Park Beach, Bridgeport	2.6	Shellfish Harvesting for Direct Consumption Where Authorized	Fecal Coliform	Potential sources include permitted and non-permitted stormwater, insufficient septic systems, nuisance wildlife/pets
CT-W1_001-SB Estuary	LIS WB Inner – Bridgeport Harbor, Bridgeport	4.9	Habitat for Marine Fish, Other Aquatic Life and Wildlife Recreation	DO Saturation Nutrient/ Eutrophication Biological Indicators Polychlorinated Biphenyls Polycyclic Aromatic Hydrocarbons (PAHs) (Aquatic Ecosystems) Enterococcus	Potential sources industrial point source discharges, municipal discharges, landfills, illicit discharges, remediation sites, groundwater contamination, on-site treatment systems, combined sewer overflow Potential sources include permitted and non-permitted stormwater, illicit discharge, CSOs/SSOs, marinas, insufficient septic systems, nuisance wildlife/pets
CT-W2_002 Estuary	LIS WB Shore – Long Beach, Stratford	0.4	Shellfish Harvesting for Direct Consumption Where Authorized	Fecal Coliform	Potential sources include permitted and non-permitted stormwater, insufficient septic systems, nuisance wildlife/pets

The CT DEEP has implemented studies of water bodies throughout the state in order to investigate specific pollutant contributions. In general, these waters were primarily screened for pollutants of concern: Bacteria, Nitrogen, Mercury and Phosphorus. The publishing of the specific waterbodies effected by these pollutants (and others) and recommended ways to reduce these loads are known as total maximum daily loads (TMDLs). The TMDLs associated with the City of Bridgeport are included in the **Table 3**.

Table 3 – TMDLs Applicable to City of Bridgeport Waterbodies

Name of TMDL	Pollutant	Waterbody
Statewide Bacteria TMDL	Bacteria	Bruce Brook
Statewide Bacteria TMDL	Bacteria	Estuary 7: Bridgeport
Statewide Bacteria TMDL	Bacteria	Pequonnock River / West Branch Pequonnock River
A TMDL Analysis for the Mill River, Rooster River, and Sasco Brook	Bacteria	Mill River / Rooster River / Sasco Brook
A TMDL Analysis for Southport Harbor Shellfishing Areas - Fairfield, CT	Bacteria	Mill River / Sasco Brook / Southport Harbor
A TMDL Analysis to Achieve Water Quality Standards for Dissolved Oxygen in Long Island Sound	Nitrogen	Long Island Sound and contributing watersheds
Northeast Regional Mercury TMDL	Mercury	All CT Inland Waters

I.7 Interconnected MS4s

The following list contains other MS4 permittees which operate within the City of Bridgeport. The areas covered by these MS4s will not be covered under this SMP. The City of Bridgeport will coordinate implementation with these other MS4s to ensure compliance with the permit.

- The Connecticut Department of Transportation (ConnDOT) is the permittee for all state highways located within the City of Bridgeport.

I.8 Yearly Schedule Definition

Most permit requirements fall into a yearly schedule and measurable goals are identified in each Best Management Practice (BMP) as to what will be completed during that year. The "year" is not a calendar year, it begins on July 1 and ends on June 30. See **Table I-1** for the dates for "year" described in this SMP. Annual reporting follows the calendar year.

Table I-1

Permit Year	Start Date	End Date
Year 1	July 1, 2017	June 30, 2018
Year 2	July 1, 2018	June 30, 2019
Year 3	July 1, 2019	June 30, 2020
Year 4	July 1, 2020	June 30, 2021
Year 5	July 1, 2021	June 30, 2022

I.9 Minimum Control Measures

Minimum compliance with the MS4 permit is accomplished by executing six MCMs and wet weather monitoring. Within each MCM, BMPs that fulfill the requirements of the permit and respective measures are used to meet the permit.

See **Table I-2** for a summary of BMPs that the town/city plans to develop and implement over the permit term and the department responsible for implementation of each BMP. These BMPs are discussed in detail in their respective MCM sections.

Table I-2

Minimum Control Measure	Description of Best Management Practice	Responsible Department
Public Education and Outreach	BMP 1-1 Implement public education program	WPCA, DPF
	BMP 1-2 Address education/outreach for pollutants of concern	WPCA, DPF
Public Involvement/ Participation	BMP 2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports	WPCA, DPF
Illicit Discharge Detection and Elimination (IDDE)	BMP 3-1 Develop written IDDE program	WPCA, CA
	BMP 3-2 Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping)	WPCA, DPF
	BMP 3-3 Develop citizen reporting program	WPCA
	BMP 3-4 Establish legal authority to eliminate illicit discharges	CA
	BMP 3-5 Develop record keeping system for IDDE tracking	WPCA
	BMP 3-6 Address IDDE in areas with pollutants of concern	WPCA
Construction Site Stormwater Runoff Control	BMP 4-1 Implement, upgrade (as necessary) and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	DPF
	BMP 4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval	DPF
	BMP 4-3 Review site plans for stormwater quality concerns	DPF
	BMP 4-4 Conduct site inspections	DPF
	BMP 4-5 Implement procedure to allow public comment on site development	DPF
	BMP 4-6 Implement procedure to notify developers about DEEP construction stormwater	DPF
Post-Construction Stormwater In New Development or Redevelopment	BMP 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	DPF, CA
	BMP 5-2 Enforce Low Impact Development (LID)/ runoff reduction requirements	DPF
	BMP 5-3 Implement Long-term Maintenance plan for stormwater basins and treatment	DPF
	BMP 5-4 DCIA mapping	DPF
	BMP 5-5 Address post-construction issues in areas with pollutants of concern	DPF
Pollution Prevention/ Good House Keeping	BMP 6-1 Develop/implement formal employee training program	WPCA, DPF
	BMP 6-2 Implement MS4 property and operations maintenance	WPCA, DPF
	BMP 6-3 Implement coordination with interconnected MS4s	WPCA, DPF
	BMP 6-4 Develop/implement program to control other sources of pollution to the MS4	WPCA, DPF
	BMP 6-5 Evaluate additional measures for discharge to impacted waters	ALL
	BMP 6-6 Track projects that disconnect DCIA	DPF
	BMP 6-7 Develop/implement infrastructure repair/rehab program	WPCA, DPF
	BMP 6-8 Develop/implement plan to identify/prioritize retrofit projects	WPCA, DPF
	BMP 6-9 Develop/implement street sweeping program	DPF
	BMP 6-10 Develop/implement catch basin cleaning program	WPCA
	BMP 6-11 Develop/implement snow management practices	DPF
Wet Weather Monitoring	BMP S-1 Outfall screening	WPCA
	BMP S-2 Inventory and mapping of discharges to impaired waters	WPCA
	BMP S-3 Follow-up investigations of drainage areas	WPCA, DPF
	BMP S-4 Annual monitoring of priority outfalls	WPCA

Stormwater Management Plan

Bridgeport, Connecticut

Minimum Control Measure 1: Public Education and Outreach

This MCM outlines efforts to promote public awareness through outreach including the distribution of information on how pollutants in stormwater runoff effect general water quality. Raising awareness of stormwater runoff is the primary goal of this MCM, and in turn these efforts will encourage residents to use BMPs that will result in reduced pollutant loadings.

The following BMPs will be used to promote public education. In addition, all requirements of the 2016 CT DEEP Small MS4 permit are met by the practices below.

- BMP 1-1 Implement public education program
- BMP 1-2 Address education/outreach for pollutants of concern

These BMPs will form a comprehensive public education and outreach program that will provide awareness, public utilization, and in turn, aim to reduce pollutant loads from stormwater discharging to City of Bridgeport water bodies.

BMP 1-1 Implement public education program

Description

The permittee will develop and implement a public education program. At a minimum, the permittee will develop materials for distribution to the public which includes information reproduced from agencies like CT DEEP and USEPA, as well as information produced by the City of Bridgeport. This information will also identify specific sources of pollutants of concern, impacts, and methods of reduction as outlined in the MCM summary.

The program will include distributing brochures and fact sheet, updates to the City's website, installing signage, marking catch basins, and performing stream or river cleanups. The program will include details on the methods and frequency of information distribution. The final activities selected will be determined by the end of the first permit year. Until the program is finalized, the permittee will continue to distribute information developed from the 2004 MS4 permit.

Outreach included in the program will include at a minimum, information on:

- Pet waste management
- Application of fertilizers, herbicides, and pesticides
- Impervious cover
- Impacts of illicit discharge improper waste disposal

Measurable Goals

1. Develop a public education program and all materials selected under the program
2. Implement the program and distribute public education materials annually
3. Summarize the types, sources, number of, and methods by which materials were disseminated

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 1-1	Develop public education program Distribute materials from 2004 permit Summarize data	Implement public education program Summarize data	Implement public education program Summarize data	Implement public education program Summarize data	Implement public education program Summarize data

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06607 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

The assessment of this BMP will be evaluated and determined by ensuring that annual educational brochures, press releases and postings are distributed throughout the City and available on the City's web site for each year of the permit.

Record Keeping

All dated records of the types, sources, number of and methods by which materials were disseminated will be filed in the WPCA office and retained in our computer file.

BMP 1-2 Address education/outreach for pollutants of concern

Description

Within the first year of the permit, the permittee will identify the applicable pollutants of concern by evaluating impaired waters as designated by the state and identified in the State of Connecticut Integrated Water Quality Report; total maximum daily load (TMDL) water quality implementation plans established pursuant to the Section 303 of the federal Clean Air Act applicable to the MS4; and other applicable information. Materials developed under BMP 1-1 will be targeted at the identified pollutants of concern, typically in CT the pollutants of concern are phosphorus, nitrogen, bacteria, and mercury.

Measurable Goals

1. Identify pollutants of concern and incorporate into materials under BMP 1-1

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 1-2	Identify pollutants of concern and incorporate into materials under BMP 1-1				

Responsible Persons

William E. Robinson Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

The City will distribute information on common sources of nitrogen, phosphorous, bacteria, and mercury pollution and how to prevent or reduce the amount reaching the MS-4 and discharging into waterways. This will be performed throughout the life of the permit on an annual basis.

Record Keeping

All dated records of the identified pollutants of concern will be incorporated into BMP 1-1 and filed in the WPCA office. This will be completed in Year 1 as required and continue until the permit expires.

Stormwater Management Plan

Bridgeport, Connecticut

Minimum Control Measure 2: Public Involvement/ Participation

This MCM enables community members to become directly involved in the implementation and review of this SMP. Additionally, by developing a quality public participation program it allows for the fostering of public acceptance of the plan and idea exchange.

The following BMPs will be used to promote public involvement/participation. In addition, all requirements of the 2016 CT DEEP Small MS4 permit are met by the practices below.

- BMP 2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports

The overall goal of this program is to use community members as a vital resource in planning, implementing BMPs, and maintaining stormwater systems such that the community assumes some responsibility for the outcome of the permit implementation.

BMP 2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports

Description

The permittee will post the SMP and annual reports to their website and will provide notification to the community that that documents are available for public comment. The notice will include the contact name (with phone number, address, and email) for who to send comments and the URL of the website where the SMP and annual reports are available. The public comment period will be a minimum of 30 days beginning no later than January 31st of each year.

Measurable Goals

1. Make SMP and annual reports publicly available
2. Distribute notice for public review and soliciting comments by January 31st each year

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 2-1	Issue public notice for feedback by Jan 31st.	Issue public notice for feedback by Jan 31st.	Issue public notice for feedback by Jan 31st.	Issue public notice for feedback by Jan 31st.	Issue public notice for feedback by Jan 31st.

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

The City will publish a public notice on its web site and in the local newspaper by January 31st of each year, providing the name, telephone number, address and email to whom the public can send comments regarding the SMP and Annual Reports. This plan and Annual Reports will be posted on the City's web site and distributed to public offices and libraries. A 30-day comment period will be allowed to enable the City to incorporate comments into the SMP and Annual Report for submission to the State DEEP by April 1st of each year.

Record Keeping

All records, public comments, and SMP and Annual Reports will be on file at the WPCA office as well as on the WPCA computer files and the City's web site.

Stormwater Management Plan

Bridgeport, Connecticut

Minimum Control Measure 3: Illicit Discharge Detection and Elimination (IDDE)

An illicit discharge is any unpermitted discharge to waters of the state that does not consist entirely of: stormwater, uncontaminated ground water, or other allowable non-stormwater discharges found in Section 3 (a)(2) of the 2016 CT DEEP Small MS4 permit.

The purpose of MCM 3 is to detect and eliminate illicit discharges to the MS4 stormwater system. The permittee develops a comprehensive program that will establish legal authority to the permittee to prohibit and eliminate illicit discharges; identify illicit discharge sources through screening, sampling, and other field investigations; and eliminate illicit sources through infrastructure modification and enforcement.

MCM 3 requirements apply to the MS4 "priority" areas, which are defined by the MS4 permit as areas that meet one or more of the following criteria: (1) urbanized areas based on census data; (2) catchment areas with DCIA greater than 11%; and/or (3) catchment areas that discharge into impaired waters. This includes the entire City of Bridgeport.

The following BMPs will be used to implement and continue the MS4 IDDE requirements.

- BMP 3-1 Develop written IDDE program
- BMP 3-2 Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping)
- BMP 3-3 Develop citizen reporting program
- BMP 3-4 Establish legal authority to prohibit illicit discharges
- BMP 3-5 Develop record keeping system for IDDE tracking
- BMP 3-6 Address IDDE in areas with pollutants of concern

The goal of this program is to eliminate illicit discharges to improve the quality of the receiving waters.

BMP 3-1 Develop written IDDE program

Description

The permittee will develop a comprehensive written IDDE program that outlines how to identify, mitigate, eliminate and control illicit discharges in a systematic way. The following key components will be included in the final IDDE program:

- Legal authority (BMP 3-4)
- Statement of IDDE program responsibilities
- Stormwater system mapping (BMP 3-2)
- Assessment and priority ranking of catchments
- Catchment investigation procedures
- Procedures for removal of illicit discharges
- Employee training
- Progress reporting

Measurable Goals

1. Complete written IDDE Program with implementation schedule
2. Follow detailed schedules and requirements in IDDE Program and related BMPs
3. Annual review of IDDE Program

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-1	Develop IDDE Program with implementation schedule	Implement IDDE Program Program review	Implement IDDE Program Program review	Implement IDDE Program Program review	Implement IDDE Program Program review

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06604 203-332-5550

Assessment

The WPCA has actively pursued the elimination of all known or uncovered IDDEs for over 12 years. Although the program has had success, it is currently not a formal, written program. Within the specified time frame, the WPCA will formalize the program.

Record Keeping

The WPCA has maintained records of all IDDEs eliminated over the last 12 years. This record keeping will continue. Once the IDDE Ordinance is formally adopted by the City, it will become part of the City Ordinances and will be maintained by the City Clerk's Office.

BMP 3-2

Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping)

Within 2 years of the effective date of the new permit, the permittee will develop a stormwater drainage map and spreadsheet or database (excel-compatible) that includes all stormwater outfalls, structures, piping, and other conveyances at a minimum scale 1"=2000' and a maximum scale of 1"=100'. The following parameters will be included:

- Size, and location (latitude/longitude) of conveyance, outfall or channelized flow
- Name, water body ID, and surface water classification for the immediate surface waterbody or wetland that receives stormwater runoff or the nearest named waterbody as applicable
- Watershed name and sub regional drainage basin number

Within 3 years of the effective date of the new permit, the permittee will further develop the drainage system mapping to include mapping requirements included in the MS4 permit, Appendix B. Key additions will be:

- Interconnects with MS4s and other storm sewer systems
- Municipal-owned stormwater treatment structures or systems
- Catchment delineations for use in priority rankings
- Waterbodies with impairments identified

Measurable Goals

1. Develop stormwater drainage map and database
2. Update mapping at a minimum annually

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-2	Develop mapping and database for 50% of priority areas	Develop mapping and database for 100% of priority area	Develop mapping and database with additional required info	Update mapping and database	Update mapping and database

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The City's WPCA and DPF will meet regularly to coordinate, report, and develop the mapping and database for 50% of priority areas as required by the General Permit. The process will continue throughout the term of the permit.

Record Keeping

All records and updates will be available at the WPCA office for public review.

BMP 3-3 Develop citizen reporting program

Description

The permittee will develop a citizen reporting program to receive reports from citizens of possible illicit discharges. The permittee will investigate all reports promptly and perform investigations and corrective actions as needed under other BMPs. The program will include clear instructions for the public describing how to submit an illicit discharge report.

All reports and follow up actions will be included in the annual report.

Measurable Goals

1. Develop citizen reporting program.

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-3	Develop citizen reporting program, investigate citizen reports	Investigate citizen reports	Investigate citizen reports	Investigate citizen reports	Investigate citizen reports

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

The WPCA has established a system to allow for citizen reporting of suspected illicit discharges into the storm water system. The system includes a 24-hour telephone number for reporting potential illicit discharges. Additionally, the City has implemented a "SeeClickFix" program by which the public can report issues using a phone app, telephone, or email to report issues or concerns.

Record Keeping

All citizen reports are kept on file in the WPCA office as well as in our computer data base. All remediation activities and/or reports are on file at the WPCA office.

BMP 3-4 Establish legal authority to eliminate illicit discharges

Description

The permittee will establish legal authority to prohibit all illicit discharges to surface water and storm sewer systems. Legal authority will also include the ability to enforce removal through legal action. The permittee will confirm authority within one year of the effective permit start date.

Measurable Goals

1. Establish legal authority

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-4	Establish legal authority	Enforce legal authority	Enforce legal authority	Enforce legal authority	Enforce legal authority

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

R. Christopher Meyer, City Attorney, 999 Broad Street, Bridgeport CT 06604 203-576-7647

Assessment

While the section of the City Ordinances which established the WPCA contains various descriptions of what may or may not be discharged to the sewer system, they do not specifically prohibit IDDEs. While this has not hindered the removal of all IDDEs identified to date, the WPCA and the CA are working to modify the ordinance to include language to specifically prohibit IDDEs.

Record Keeping

All notices, letters, and corrective actions are kept on file at the WPCA office.

BMP 3-5 Develop record keeping system for IDDE tracking

Description

The permittee will develop record keeping system for tracking of information pertinent to IDDE. The IDDE tracking system will be coordinated with the IDDE Program in BMP-1. The permittee will, upon identification, remove illicit discharges within 60 days. If 60 days is not feasible then the permittee will create a plan to eliminate the discharge no longer than 180 days from identification.

Information on potential illicit discharges from the following sources will be tracked:

- Citizen Reporting of potential illicit discharges (see BMP 3-3)
- Outfalls identified as potentially having illicit discharges during dry weather screening and sampling (see BMP 3-7)
- Sanitary Sewer Overflows (see BMP 3-8)
- Signs of illicit discharges identified by staff

Information being tracked will include:

- Descriptions of the potential illicit discharge, location (linked in GIS), date identified
- Actions taken to confirm whether an illicit discharge exists with dates
- Resolution of investigations, either documentation the illicit discharge

Measurable Goals

1. Develop IDDE tracking system.

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-5	Develop IDDE tracking system Track IDDE	Track IDDE	Track IDDE	Track IDDE	Track IDDE

Responsible Persons

William E. Robinson, Acting General Manger, City of Bridgeport WPCA, 697 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

The WPCA presently investigates all potential sources of illicit connections whether reported by a citizen, found by the WPCA sampling program, or signs of illicit discharges identified by staff. Upon identification, the illicit discharge is eliminated by the property owner or the WPCA as quickly as possible.

Record Keeping

All records of illicit discharges including the date, location, inspections, and corrective action taken are on file at the WPCA office.

BMP 3-6 Address IDDE in areas with pollutants of concern

Description

For MS4 discharges to impaired water (with or without a TMDL), for which nitrogen, phosphorus, bacteria, or mercury are pollutants of concern, or waters which have pollution load reductions specified within a TMDL are required to meet criteria specified in the general permit related to: screening and monitoring; implementation of BMPs to meet Waste Load Allocation, Load Allocation or Water Quality Targets within TMDL; meet requirements for new discharges.

Measurable Goals

1. Review impaired water guidance and TMDLs
2. Prioritize illicit discharges in IDDE program (see BMP 3-1)
3. Screen for pollutants of concern (POC) during dry weather (see BMP 3-7)
4. Implement non-structural BMPs for POC: public education, targeted outreach to potential contributor; employee training (see related BMPs)
5. If necessary, implement structural BMPs to achieve Waste Load Allocation, Load Allocation or Water Quality Targets with in TMDL
6. For new discharges, the developer/contractor needs to meet stormwater regulations (see BMP 5-1)

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 3-6	Review impaired water guidance and TMDLs	Evaluate/track progress of BMPs for impaired waters	Evaluate/track progress of BMPs for impaired waters	Evaluate/track progress of BMPs for impaired waters	Evaluate/track progress of BMPs for impaired waters

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The City will identify which areas are most likely to contribute nitrogen, phosphorous, bacteria, and mercury to the MS4. The assessment will consider: historic on-site sanitary system failures, proximity to bacterial impaired waters, low infiltrative soils, and shallow groundwater. Any areas determined to have a high potential for septic system failure will be reported to the City's Health Department for corrective action. The WPCA will also screen for POC during dry weather.

Record Keeping

All records will be maintained in the WPCA's files.

Stormwater Management Plan

Bridgeport, Connecticut

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

The purpose of this measure is to effectively control stormwater runoff through the implementation and enforcement of Best Management Practices (BMPs) associated with land disturbance and development sites that are collectively equal to or greater than 1 acre of land.

The following BMPs will be used to control stormwater runoff at construction sites. In depth descriptions of how each BMP will be implemented are discussed within this section.

- BMP 4-1 Implement, upgrade (as necessary) and enforce land use regulations or other legal authority to meet requirements of MS4 general permit
- BMP 4-2 Develop/implement a plan for interdepartmental coordination in site plan review and approval
- BMP 4-3 Review site plans for stormwater quality concerns
- BMP 4-4 Conduct site inspections
- BMP 4-5 Implement procedure to allow public comment on site development
- BMP 4-6 Implement procedure to notify developers about DEEP construction stormwater permit

The overall goal of this program is to prevent stormwater runoff from construction sites from polluting nearby receiving waters.

BMP 4-1 Implement, upgrade (as necessary) and enforce land use regulations or other legal authority to meet requirements of MS4 general permit

Description

The permittee has established legal authority to include the following items relating to construction site stormwater runoff:

1. Requirements for developers to maintain consistency with current stormwater regulators and regulations (e.g., 2002 Guidelines for Soil Erosion and the Connecticut Stormwater Manual
2. Authority to carry out inspection, surveillance, and monitoring procedures to maintain developer compliance with the permit
3. Requirement for owner to comply with a long term maintenance plan
4. Requirement between permittee and other MS4s to coordinate agreements relating to the contribution of pollutants
5. Enforcement mechanisms

The permittee has established legal authority as of 2009 through City Municipal Code of Ordinances 15-48.

Measurable Goals

1. Confirm legal authority

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-1	Start process for establishing legal authority	Establish legal authority	Enforce legal authority	Enforce legal authority	Enforce legal authority

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The City has implemented a Storm Water Ordinance and Manual since 2009 and most recently updated the Manual in 2016. We will continue to review and update the Manual to comply with the requirements of the MS4 permit.

Record Keeping

A copy of the City's Storm Water Manual is provided along with the Ordinance granting the Engineering Department to make periodic technical revisions as necessary.

BMP 4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval

Description

The permittee will develop and implement an interdepartmental plan for jurisdiction and enforcement over construction permit requirements. This plan will be implemented on the effective date of the permit. Departments will meet at least annually to discuss plan and make changes if needed.

Measurable Goals

1. Develop interdepartmental coordination plan by July 1, 2017
2. Implement interdepartmental coordination plan

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-2	Develop and Implement interdepartmental coordination plan	Implement interdepartmental coordination plan	Implement interdepartmental coordination plan	Implement interdepartmental coordination plan	Implement interdepartmental coordination plan

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The City has a plan in place based on the Planning and Zoning Commissions and the building permit process in which the Zoning Regulations contain certain construction permit requirements such as soil and erosion Control measures, storm water runoff control requirements and water quality requirements. The Zoning regulations govern the pre-application process and the building permit process and subsequent Certificate of Occupancy requirements enforce the regulations.

Record Keeping

Building permits are tracked through the City's QAlert software and will be tracked in the future through the City's new EnerGOV software.

BMP 4-3 Review site plans for stormwater quality concerns

Description

The permittee will perform site plan reviews to minimize impacts to nearby water bodies by incorporating stormwater controls. Site plan reviews will be required for all development and redevelopment projects with more than one acres of soil disturbance. This BMP will be implemented on the effective date of the permit.

Measurable Goals

1. Perform site plan reviews

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-3	Perform site plan reviews	Perform site plan reviews	Perform site plan reviews	Perform site plan reviews	Perform site plan reviews

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

Every development in the city is reviewed for compliance with the City's storm water regulations as part of the Planning and Zoning and Building Department process.

Record Keeping

Process is tracked the same way as BMP 4-2.

BMP 4-4 Conduct site inspections

Description

The permittee will conduct site inspections to enforce the requirements determined during the site plan reviews. These inspections will enforce the required stormwater controls during construction. This BMP will be implemented on July 1, 2017.

Measurable Goals

1. Perform site inspections

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-4	Perform site inspections	Perform site inspections	Perform site inspections	Perform site inspections	Perform site inspections

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

Installation in conformance of approved plans as described in BMP 4-2 and 4-3 is performed by a State of Connecticut licensed Professional Engineer. As part of the Zoning Regulations an asbuilt map is required in all new or substantial developments. That asbuilt is produced and signed by the Engineer of record. In addition to this asbuilt certification which adheres to the approved plans the Building inspector verifies installation of certain storm water control measures by means of visual inspection.

Record Keeping

A mylar of the asbuilt condition is required to be placed on the land records prior to the issuance of a Certificate of Occupancy.

BMP 4-5 Implement procedure to allow public comment on site development

Description

The permittee will develop and implement a procedure to receive and consider public comments for proposed and ongoing land developments. This BMP will be implemented on the effective date of the permit.

Measurable Goals

1. Implement procedure to receive public comments on site development

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-5	Develop and Implement procedure to receive public comments on site development	Implement procedure to receive public comments on site development	Implement procedure to receive public comments on site development	Implement procedure to receive public comments on site development	Implement procedure to receive public comments on site development

Responsible Persons

Dennis Buckley, Zoning Official

Assessment

The Zoning Department will develop a matrix to track public commentary received regarding proposed and ongoing land developments.

Record Keeping

Records will be kept in the Zoning Department's electronic and paper files.

BMP 4-6 Implement procedure to notify developers about DEEP construction stormwater permit

Description

The permittee will develop and implement a procedure to notify developers of specific requirements including a potential obligation to obtain authorization under the *CT DEEP's General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities*. This permit is also known as the construction general permit and requires the developer or contractor to submit a Storm Water Pollution Control Plan. This BMP will be implemented on the effective date of the permit.

Measurable Goals

1. Implement a procedure to notify developers of DEEP construction stormwater permit

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 4-6	Implement a procedure to notify developers of DEEP construction stormwater permit	Continue procedure to notify developers of DEEP construction stormwater permit	Continue procedure to notify developers of DEEP construction stormwater permit	Continue procedure to notify developers of DEEP construction stormwater permit	Continue procedure to notify developers of DEEP construction stormwater permit

Responsible Persons

Dennis Buckley, Zoning Official

Assessment

The Zoning Department will develop a matrix to track actions taken to notify developers of the DEEP Storm Water Permit requirements.

Record Keeping

Records will be kept in the Zoning Department's electronic and paper files.

Stormwater Management Plan

Bridgeport, Connecticut

Minimum Control Measure 5: Post-Construction Stormwater in New Development or Redevelopment

The purpose of this MCM is to outline a program to address stormwater runoff from new developments or redevelopment projects. Requirements of this MCM apply to sites with greater than one acre of soil disturbance except for DCIA calculations which apply for all projects.

The BMPs below will be used to control stormwater runoff at locations following construction, upon completion of construction activities. In depth descriptions of how each BMP will be implemented are discussed within this section.

- BMP 5-1 Establish and/or Update Legal Authority and Guidelines Regarding Low Impact Development (LID) and Runoff Reduction in Site Development Planning
- BMP 5-2 Enforce LID/Runoff Reduction Requirements for Development and Redevelopment Projects
- BMP 5-3 Implement Long-term Maintenance Plan for Stormwater Basins and Treatment Structures
- BMP 5-4 DCIA Mapping
- BMP 5-5 Address Post-Construction Issues in Areas with Pollutants of Concern

The overall goal of this program is to prevent stormwater runoff from new development and redevelopment sites from polluting nearby receiving waters.

BMP 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning

Description of Legal Authority and Guidelines for LID

The permittee will establish (and update) legal authority relative to developers and contractors using LID and runoff practices from the Connecticut Stormwater Quality Manual LID and runoff reduction standards. Legal authority will include the following standards described in the MS4 General Permit:

- For redevelopment sites that are currently developed with DCIA ≥ 40%: retain on-site half the water quality volume; or
- For new development and redevelopment sites with <40% DCIA: retain on-site the water quality volume; or
- An alternate retention/treatment standard as outlined in the permit. If the runoff reduction cannot be met, the developer will need to submit a report outlining why the requirement cannot be met and may need to fund a project on another site that reduces site runoff.

The permittee will consider additional factors in establishing legal authority that protect watershed elements that manage impacts of stormwater on receiving waters. The permittee will identify, and where appropriate, reduce or eliminate existing local regulatory barriers that may limit implementation of LID and runoff reduction to the maximum extent possible. If the permittee cannot eliminate the barriers, the annual report will reflect, justify, and contain a revised schedule for implementation.

Measurable Goals

1. Evaluate current regulations to identify status of legal authority and which regulations require revisions
2. Develop programs, regulations, ordinances, etc. that provide legal authority to implement

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 5-1	Evaluate current regulations Develop regulations to establish legal authority	Develop regulations that establish legal authority and adopt the regulations			

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The City has introduced LID features as part of its Storm Water regulations. The legal authority to do this requirement is the City's Storm Water Regulations (updated November 2016) and the City's Code of Ordinance 15.48. The City will continue to promote the use of LIDs as part of the regulations and has started to require that new developments and substantial improvements retain the required 40% of the water quality volume as outlined in the MS4 permit.

Record Keeping

As part of the building permit process the developer is required to submit asbuilts for recording on the land records for the property. Additionally, the City will begin to require CAD drawings for overlaying onto the City's GIS system. Once a baseline is established for DCIA the City will utilize new development asbuilt to further disconnect properties from the City's systems and reduce the amount of DCIAs. The City is also requiring a maintenance plan for all storm water systems on a given site. These maintenance plans will be recorded on the land records for those properties.

BMP 5-2 Enforce low impact development (LID)/ runoff reduction requirements for development and redevelopment projects

Description

The permittee will implement the requirements in BMP 5-1 when legal authority is obtained by the end of Year 2. In Years 1-2, the permittee will enforce the current regulations.

Measurable Goals

1. Enforce current regulations
2. Issue notice to inform developers of regulation changes.
3. Enforce new regulations

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 5-2	Enforce current regulations	Enforce current regulations	Enforce new regulations	Enforce new regulations	Enforce new regulations

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

See Section 5-1

Record Keeping

See Section 5-1

BMP 5-3 Implement long-term maintenance plan for stormwater basins and treatment structures

Description

Within 2 years of the effective date of this permit, the permittee will develop a long-term maintenance plan for stormwater structures and measures that are owned by the permittee, or those for which the permittee maintains an easement or legal authority over, and that fall within the "priority" areas (Urbanized Area, DCIA > 11%, or discharge to impaired waters).

The maintenance plan ensures the long-term effectiveness of retention ponds, detention ponds, swirl concentrators, oil/grit separations, water quality wetlands, water quality swales, and other stormwater measures. At a minimum, the permittee will inspect all stormwater measures annually if they are found to have sediment or other pollutants (oils, leaves, litter, etc.) that take up more than 50% of design capacity, the stormwater measure will be cleaned to restore full solids capture design capacity.

Long-term maintenance of privately-owned stormwater structures or measures is enforced in BMP 5-2.

Measurable Goals

1. Develop long-term maintenance plan
2. Implement long-term maintenance plan

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 5-3	Develop long-term maintenance plan	Develop long-term maintenance plan	Implement long-term maintenance plan	Implement long-term maintenance plan	Implement long-term maintenance plan

Responsible Persons

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

The WPCA will continue to monitor/clean/inspect all catch basins and swirl concentrators that are publicly owned and will maintain records of the actions taken. As appropriate the maintenance of all other publicly owned storm water measures will be similarly documented.

Record Keeping

Records will be maintained in the appropriate agency's files.

BMP 5-4 DCIA Mapping

Description

The permittee will calculate the DCIA for each stormwater outfall catchment in the MS4 within three years of the effective permit start date. CT DEEP will provide DCIA mapping to use as the basis of this calculation. The MS4 will develop a methodology to create a baseline map that accurately identifies DCIA for each outfall catchment.

Key steps of the process are expected to include:

- Obtain DCIA mapping from CT DEEP and/or UCONN NEMO to use as a starting point. This is expected to be high-level mapping that can be refined by the MS4.
- Update DCIA delineations to account for actual field conditions, including LID measures that disconnect impervious areas from the storm drainage system. Field inspections and file reviews will likely be performed.

The calculation, methodologies, and assumptions will also be presented in the initial annual report with updates in each successive report.

Measurable Goals

1. Develop methodology for DCIA calculation
2. Develop map with DCIA calculation for each stormwater catchment
3. Calculate DCIA annually to account for all development, redevelopment, or retrofit projects that add or remove DCIA from the MS4

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 5-4	Develop methodology for DCIA calculation	Begin calculating DCIA of each catchment	Finalize DCIA calculation of each catchment	Update DCIA calculation	Update DCIA calculation

Responsible Persons

Jon Urquidi, P.E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

As stated above, the City's storm water regulations will begin to require LIDs and require a reduction in DCIAs as part of development and redevelopment. The City will establish a baseline for DCIAs as approved by DEEP and utilize new development/redevelopment asbuilt information to reduce the percentage of DCIAs going forward as part of the storm water regulations and building permit process.

Record Keeping

Through the City's Planning Department the City will utilize GIS mapping and planemetric date to establish DCEA baseline ad introduce asbuilt mapping on new developments ti further reduce DCIA.

BMP 5-5 Address post-construction issues in areas with pollutants of concern

Description

For development and re-development, consideration for pollutants of concern will be considered. During the review of developer/contractor plans, the permittee will identify if the project is within a stormwater catchment that discharges to impaired waters. If applicable, the permittee will require the developer/contractor to implement the necessary non-structural and structural BMPs to meet MS4 permit requirements for discharges to impaired waters.

Measurable Goals

1. Identify projects in catchments that discharge to impaired waters in conjunction with BMP 5-2

2. Develop procedures that require the contractor to implement non-structural and structural BMPs

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 5-5	Identify projects in catchments that discharge to impaired waters	Identify projects in catchments that discharge to impaired waters	Identify projects in catchments that discharge to impaired waters	Identify projects in catchments that discharge to impaired waters	Identify projects in catchments that discharge to impaired waters

Responsible Persons

Jon Urquidi, P.E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

Monitor developments that discharge storm water to impaired waters and reduce those flows into those waters. Continue to require BMPs for development and redevelopment.

Record Keeping

Same as BMP 5-1 asbuilt requirements.

Stormwater Management Plan

City of Bridgeport, Connecticut

Minimum Control Measure 6: Pollution Prevention/Good House Keeping

The purpose of this MCM is to promote efforts for an overall operations and maintenance program of the MS4.

The following Best Management Practices (BMPs) will be used to continue the pollution prevention/good housekeeping operation and maintenance measures of previous permit. In depth descriptions of how each BMP will be implemented are discussed later in this section.

- BMP 6-1 Develop/implement formal employee training program
- BMP 6-2 Implement MS4 property and operations maintenance
- BMP 6-3 Implement coordination with interconnected MS4s
- BMP 6-4 Develop/implement program to control other sources of pollutants to the MS4
- BMP 6-5 Evaluate additional measures for discharges to impaired waters
- BMP 6-6 Track projects that reduce and disconnect DCIA
- BMP 6-7 Develop/implement infrastructure repair/rehab program
- BMP 6-8 Develop/implement plan to identify/prioritize retrofit projects
- BMP 6-9 Develop/implement street sweeping program
- BMP 6-10 Develop/implement catch basin cleaning program
- BMP 6-11 Develop/implement snow management practices

The overall goal of this MCM is to prevent and reduce pollutant runoff and protect water quality characteristics of receiving waters by maintain good housekeeping practices.

BMP 6-1 Develop/implement formal employee training program

Description

The permittee will continue an employee training program with the following goals:

- Educate staff of water quality issues
- Integrate aspects and goals of the SMP into trainings including construction site runoff, IDDE, spill response, impaired waters and staff responsibility.
- Work in conjunction with BMP 3-1 (IDDE Program) that also requires Employee Training

The training program will be a continuation of the training program required in the previous permit.

Measurable Goals

1. Perform annual training

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-1	Perform employee training	Perform employee training	Perform employee training	Perform employee training	Perform employee training

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

The WPCA's Facilities Operator (Severn Trent Environmental Services) provides training to the entire staff. Training includes but is not limited to excavation competent person training, confined space entry, vac truck/sewer jet operation, housekeeping, and spill response. Staff is also qualified in identifying IDDEs and 17 staff members have WEFTEC Sewer Maintainer certification. Similar programs are in effect in all City departments,

Record Keeping

For the WPCA, all training sessions and attendance records are recorded, filed, and placed in the employee personnel files by Severn Trent Services.

Similar records are maintained by the appropriate City departments.

BMP 6-2 Implement MS4 property and operations maintenance

Description

The permittee will develop or update maintenance procedures for permittee owned properties and equipment in order to mitigate pollutant loads on the MS4 and its receiving waters. Maintenance procedures to be implemented include:

- Parks and Open Space Maintenance with fertilizer application procedures
- Pet Waste Management
- Waterfowl Management
- Building and Facility Material Storage and Spill Prevention
- Vehicles and Equipment Maintenance
- Leaf Management

Measurable Goals

1. Evaluate maintenance procedures
2. Implement maintenance procedures

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-2	Evaluate and implement maintenance procedures	Implement maintenance procedures	Implement maintenance procedures	Implement maintenance procedures	Implement maintenance procedures

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Stephen T. Hladun, Parks & Recreation, 999 Broad Street, Bridgeport CT 06604 203-576-7797

Assessment

All chemicals required for operation of the WPCA's Water Pollution Control Facilities are stored in containment areas. The maintenance facilities for the vehicles and equipment have similar containment areas. The WPCA has a Spill Prevention Program and has materials for cleanup stored at each facility. Staff are trained on how to handle spills and an emergency number for an environmental cleanup company is posted should the spill become too big and/or dangerous. Inspections are performed monthly to ensure no minor leaks are occurring and to check that the status of cleanup materials is sufficient.

The City maintains all fuel and lubricants required for their operations in a similar manner. In addition, the Parks and recreation Department develops maintenance procedures in order to maintain the parks and associated equipment.

Record Keeping

As stated above, monthly inspections are performed to ensure no leaks or spills of chemicals have occurred and to keep the spill cleanup materials inventory up to date. Records of all inspections are on file in the WPCA office.

BMP 6-3 Implement coordination with interconnected MS4s

Description

The permittee will coordinate with interconnected MS4s regarding pollutant loadings, contributing areas, and operation and maintenance procedures.

Measurable Goals

1. Identify all interconnected MS4s
2. Meet *annually at a minimum* with each interconnect MS4 to coordinate SMP goals

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-3	Identify interconnected MS4s and attend meeting(s)	Attend coordination meeting(s)	Attend coordination meeting(s)	Attend coordination meeting(s)	Attend coordination meeting(s)

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P.E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

Generation of the list of interconnected MS4 will complete the Year 1 goals.

Record Keeping

All records will be maintained in the City Engineer or WPCA electronic and/or paper files.

BMP 6-4 Develop/implement program to control other sources of pollutants to the MS4

Description

The permittee will develop and implement a program to restrict the discharge of pollutants from other sources such as commercial, industrial, municipal, institutional, or other facilities. This program shall meet the requirements of Connecticut General Statues Sections 22a-430 and 22a-430b.

Measurable Goals

1. Develop and implement pollutant source control program

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-4	Develop and implement pollutant source control program	Implement pollutant source control program	Implement pollutant source control program	Implement pollutant source control program	Implement pollutant source control program

Responsible Persons

Jon Urquidi, P.E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

Development of the plan will complete the Year 1 goals.

Record Keeping

All records will be maintained in the City Engineer or WPCA electronic and/or paper files.

BMP 6-5 Evaluate additional measures for discharges to impaired waters

Description

For discharges to waters with Nitrogen or Phosphorus as a pollutant of concern, the permittee will implement a turf management policy including procedures for fertilizer application and the use native plants. The permittee will document the actions taken to enforce the policy and will include an estimate of the fertilizer and turf reduction.

For discharges to waters with Bacteria as a pollutant of concern, the permittee will develop, fund, implement, and prioritize a source management program to address bacteria concentrations in stormwater discharges from permittee controlled lands. These lands include dog parks, parks with open water, and sites with septic systems. The permittee will also implement a program to prohibit the feeding of waterfowl and to manage the populations of waterfowl. The permittee will document all actions taken to reduce the loadings of bacteria to impaired waters.

Measurable Goals

1. Develop turf management policy and source management program Parks
2. Implement turf management policy for discharges to Nitrogen or Phosphorus impaired waters
3. Implement source management program and waterfowl program for discharges to Bacteria impaired water
4. In each annual report, document the actions taken to implement these programs and include an estimate of fertilizer and turf reduction Parks

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-5	Develop and implement procedures for reducing discharges to impaired waters	Implement procedures for reducing discharges to impaired waters	Implement procedures for reducing discharges to impaired waters	Implement procedures for reducing discharges to impaired waters	Implement procedures for reducing discharges to impaired waters

Responsible Persons

Stephen T. Hladun, Parks & Recreation, 999 Broad Street, Bridgeport CT 06604 203-576-7797

Assessment

The development of the plan/procedures will complete the Year 1 goal.

Record Keeping

All records will be maintained in the City Engineer or WPCA electronic and/or paper files.

BMP 6-6 Track projects that disconnect DCIA

Description

The permittee will develop a system to track changes in DCIA as a result of retrofitting or redevelopment including those changes which can be tracked as far as 5 years prior to the effective permit start date (projects since July 1, 2012). This tracking will begin immediately after the effective permit start date and DCIA percentages will be included in every annual report. See BMP 3-2 for baseline DCIA calculation and mapping.

Measurable Goals

1. Track DCIA percentage
2. Reduce DCIA by 2% by the end of the permit term (see BMP 6-8)

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-6	Track DCIA percentage	Track DCIA percentage	Track DCIA percentage	Track DCIA percentage	Track DCIA percentage

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 576-3960

Assessment

Completion of the mapping required by BMP 3-2 will allow assessment of the DCIA (BMP 6-6) percentage relative to time.

Record Keeping

All records shall be kept and will be maintained in the City Engineering Department electronic and paper files.

BMP 6-7 Develop/implement infrastructure repair/rehab program

Description

The permittee will develop and implement a program for MS4 infrastructure to encompass repair and rehabilitation. The permittee will use known information collected from the previous permit to repair and rehabilitate damaged MS4 infrastructure. Data collected from inspections and mapping will be used to update planned repairs throughout the permit.

Measurable Goals

1. Evaluate MS4 infrastructure and develop program
2. Repair and rehabilitate MS4 infrastructure

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-7	Evaluate infrastructure Repair and rehabilitate MS4 infrastructure	Repair and rehabilitate MS4 infrastructure	Repair and rehabilitate MS4 infrastructure	Repair and rehabilitate MS4 infrastructure	Repair and rehabilitate MS4 infrastructure

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

Develop a plan to evaluate MS4 infrastructure and perform the evaluations.

Record Keeping

Records of all activity will be maintained by the appropriate department.

BMP 6-8 Develop/implement plan to identify/prioritize retrofit projects

Description

The permittee will implement a plan to identify and prioritize retrofit and redevelopment projects. These projects will include any retrofit and redevelopment where the Water Quality Volume will be retained on site with the use of LID. Retrofit projects are defined as modifications for the purpose of retaining the Water Quality Volume on site. Redevelopment projects are defined as modifications to an existing developed site to expand or change its current function. On redevelopment projects, retaining the Water Quality Volume will also be performed, but this is not the primary purpose. The retrofit plan will be developed within three years of the effective permit start date that will identify projects for future DCIA reduction.

A 1% annual removal of DCIA will commence following the completion of the retrofit plan. Projects implemented up to 5 years prior to the effective permit start date may be used toward the 1% removal. A 1% annual removal will also be required for years following the fifth permit year. See BMP 3-2 for baseline DCIA calculation and mapping.

Measurable Goals

1. Develop and implement retrofit plan to include tracking of DCIA (see BMP 6-6)
2. Removal of 1% of DCIA (total of 2% in Years 4 and 5)
3. Include in the annual report the identification and prioritization process for selecting retrofit projects, the rationale for selection and the total planned DCIA to be disconnected.

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-8	Develop retrofit plan*	Develop retrofit plan*	Develop retrofit plan*	Remove 1% of DCIA	Remove 1% of DCIA

*Once the retrofit plan is complete, the permittee will begin 1% annual DCIA disconnection even if the plan is completed earlier than Year 3.

Responsible Persons

Jon Urquidi, P. E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

Assessment

The development of the required retrofit plan will provide an assessment of the progress made.

Record Keeping

All records will be maintained in the City Engineering Department electronic and paper files.

BMP 6-9 Develop/implement street sweeping program

Description

The permittee will update procedures for street sweeping on permittee owned or operated streets and parking lots. Specific areas where street sweeping will occur, at a minimum, once a year include:

- Urbanized areas of the MS4
- Non-urbanized areas with the catchment areas of the MS4 that either discharge to impaired waters or contain DCIA greater than 11%

The policy of the Bridgeport Public Facilities Department regarding street sweeping is as follows:

- Residential streets will be swept once a month.
- Main roads will be swept twice a month.
- Downtown will be swept twice a week.
- Parks will be swept at a minimum once a year.
- City of Bridgeport municipal lots and BOE parking lots are swept a minimum of once a year.
- All sweepers will carry communication devices so they can be reached at all times.

Each year's annual report will include a summary of inspection results, curb miles swept, dates of cleaning, volume or mass of material collected, methods of reuse or disposal, and alternate sweeping plans for rural uncurbed streets.

Measurable Goals

1. Annual Street Sweeping
2. Street sweeping plan for non-urbanized area, if applicable
3. Document and track street sweeping as detailed in the BMP description

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-9	Annual Street Sweeping	Annual Street Sweeping	Annual Street Sweeping	Annual Street Sweeping	Annual Street Sweeping

Responsible Persons

John Ricci, Director, Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

Assessment of this BMP will be by comparison of the stated goal vs. the actual sweeping documented.

Record Keeping

All records will be maintained in the Public Facilities Department electronic and paper files.

BMP 6-10 Develop/implement catch basin cleaning program

Description

The permittee will develop, update, and implement procedures for catch basin cleaning and inspection for all town-owned basins.

Specifically catch basins in the "priority" areas (Urbanized Areas, DCIA > 11%, or discharge to impaired waters) will be inspected within three years of the effective permit date. Additionally all other catch basins must be inspected by the end of the five year term.

The permittee will create a plan for optimizing catch basin cleaning to ensure no catch basin exceeds sediment loading of 50% full. This information will also be documented in the first year annual report along with total number of catch basins, number inspected, number cleaned and total mass of material removed. If a catch basin is more than 50% full in two successful inspections or cleanings, the permittee will investigate source of debris and implement abatement to the maximum extent practicable.

Measurable Goals

1. Implement catch basin cleaning and inspection procedures including optimization plan
2. Annual report catch basin tracking as detailed in the BMP description

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-10	Develop and Implement catch basin cleaning and inspection procedures	Implement catch basin cleaning and inspection procedures	Implement catch basin cleaning and inspection procedures	Implement catch basin cleaning and inspection procedures	Implement catch basin cleaning and inspection procedures

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

The WPCA through our contract operator has successfully managed to clean all 8500 catch basins within the city at least once a year for the last 14 years. While experience has enabled managers to assess the areas where more frequent cleaning is required (and has been accomplished) the WPCA will develop a more formal inspection procedure and an optimization plan during the first year. Additionally, the WPCA responds to all emergency or "SeeClickFix" requests.

Record Keeping

All records regarding catch basin cleaning are stored on our contract operator's computer-based maintenance systems.

BMP 6-11 Develop/implement snow management practices

Description

The permittee will develop, update, and implement measures for the control of snow related pollutant loadings to the MS4. The following measures will be used to manage snow related practices by the permittee:

- Deicing Material Measures: The permittee will explore alternative deicing materials and implement secondary containment for all exterior liquid storage.
- Snow and Ice Control Practice: The permittee will implement standard operating procedures to minimize discharge of deicing materials by establishing optimization goals. The permittee will maintain records on deicing material usage and provide proper training for application.

All practices will be in accordance with CT DEEP's BMPs for Disposal of Snow Accumulations from Roadways and Parking Lots. In addition, the permittee will include in its annual report the types of staff training conducted for application methods and equipment, type(s) of deicing material used, lane-miles treated, total amount of each deicing material used, types of deicing equipment used, changes in deicing practices and snow disposal methods.

Measurable Goals

1. Develop / update snow management measures and practices
2. Implement snow management measures and practices
3. Annual tracking of snow management practices as detailed in the BMP description

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP 6-6	Develop, update, and implement snow management measures and practices	Implement snow management measures and practices	Implement snow management measures and practices	Implement snow management measures and practices	Implement snow management measures and practices

Responsible Persons

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

Development and implementation of the required plan will indicate compliance with the Year 1 goals.

Record Keeping

All records shall be kept and will be maintained in the Public Facilities Department electronic and paper files.

Wet Weather Monitoring

The permittee will perform wet weather monitoring for outfalls that discharge into impaired waters in order to investigate pollutants of concern levels in receiving waters. Outfalls discharging into impaired waters will be identified through the Illicit Discharge Detection and Elimination Program (IDDE) mapping (BMPs 3-1 and 3-2). Specific screening and monitoring requirements during wet weather for the pollutants of concern (nitrogen, phosphorous, bacteria) that discharge from outfalls into impaired waters are noted in the best management practices (BMPs) below and are described in further detail throughout this section.

- BMP S-1 Outfall screening
- BMP S-2 Inventory and mapping of discharges to impaired waters
- BMP S-3 Follow-up investigations of drainage areas
- BMP S-4 Annual monitoring of priority outfalls

The goal of wet weather monitoring is to identify the greatest point sources of pollutant loads into impaired waters and begin to eliminate or mitigate upstream causes of such pollutants.

BMP S-1 Outfall screening

Description

The permittee will perform wet weather screening of outfalls that discharge into impaired waters for Nitrogen, Phosphorus, Bacteria, and other pollutants. Mapping from the IDDE program will identify locations of such outfalls. For each pollutant reading that exceeds one or more of the thresholds below, the permittee needs to justify the exceedance and provide recommendations for further investigations.

1. Nitrogen – Total Nitrogen > 2.5 mg/L
2. Phosphorous - Total Phosphorous > 0.3 mg/L
3. Bacteria – E coli > 235 col/100 mL in swimming areas and > 410 col/100 mL for all other waters, or total coliform> 500 col/100 mL, or Fecal Coliform > 31 col/100 mL for Class SA waters and > 260 col/100 mL for class SB waters or Enterococci >104 col/100 mL for swimming areas and >500 col/100 mL for all other waters.
4. Other Pollutants – Turbidity > 5 NTU

The permittee will perform screening during rainfall events that produce discharge from the outfall within the first six hours of the rain event and at least 48 hours after a previous rainfall event. Snow events alone will not be utilized, however, a rain event with significant amount of snow or ice melt may be utilized. One grab sample will be taken and parameters will be followed for testing as part of Title 40, CFR, Part 136 (1990) for laboratory analyses consistent with Connecticut Reasonable Confidence Protocols.

Screening will commence within one year of the effective permit start date, 50% of the outfalls will be screened within three years and all outfalls will be screened by the end of the permit term.

Measurable Goals

1. Perform screening of 50% of outfalls by the end of the third year
2. Perform screening of 100% of outfalls by the end of the fifth year
3. Track for reporting a list of all outfalls screened

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP S-1	Commence wet weather screening	Continue wet weather screening	Continue wet weather screening to meet 50% goal	Continue wet weather screening	Continue wet weather screening to meet 100% goal

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 697 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

The WPCA will implement a program to ensure compliance with the schedule in this BMP. Assessment of our actions will be determined by the progress made in compliance.

Record Keeping

All data retrieved during the screening is entered into a WPCA computer for tracking. Information contained in the tracking includes date, time, weather, rainfall, outfall location, and test results.

BMP S-2 Inventory and mapping of discharges to impaired waters

Description

The permittee will create an inventory of all dischargers to impaired waters and prepare mapping of these discharges. This effort will be completed within two years of the effect date of the permit.

Measurable Goals

1. Complete inventory and mapping of discharges to impaired waters

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP S-2	Begin inventory and mapping of discharges to impaired waters	Finish inventory and mapping of discharges to impaired waters			

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Jon Urquidi, P.E., City Engineer, 45 Lyon Terrace, Bridgeport CT 06604 203-576-3960

John Ricci, Director Public Facilities, 999 Broad Street, Bridgeport CT 06604 203-576-7130

Assessment

In conjunction with the City's IT department mapping of the discharges to impaired waters.

Record Keeping

Mapping, as developed, will be maintained in the appropriate City department files and available on the City's GIS program.

BMP S-3 Follow-up investigations of drainage areas

Description

The permittee will conduct further investigations for every outfall that exceeds allowable thresholds indicated through the implementation of BMP S-1. Specifically, the permittee will investigate the drainage area contributing to each outfall and implement BMPs denoted in MCMs 1-6 or add additional BMPs in order to mitigate pollutant contributions to impaired waters.

The permittee will perform drainage investigations and implement measures to combat pollutant sources in those areas within two years of the effective permit start date.

Measurable Goals

1. Perform drainage investigation for outfalls requiring follow-up and BMP implementation
2. Develop a tracking system/reporting list of all outfalls selected for investigation
3. Report on the progress of investigation and control measure implementation for the different impairments

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP S-3	Perform follow-up investigations	Perform follow-up investigations	Perform follow-up investigations	Perform follow-up investigations	Perform follow-up investigations

Responsible Persons

William E. Robinson, Acting General Manager, City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

As testing of outfalls progresses, any outfalls which require additional investigation will be incorporated into a list. Progress will be assessed by reporting on the investigations and control measures implemented.

Record Keeping

Records will be maintained in the appropriate City department's file.

BMP S-4 Annual monitoring of priority outfalls

Description

The permittee will monitor the top six pollutant contributing outfalls that exceed allowable thresholds indicated through the implementation of BMP S-1.

After 50% of the outfalls that discharge to impaired waters have been screened, the permittee will select the six outfalls with highest pollutant loadings for annual wet weather monitoring. The selected six outfalls will be updated as additional outfalls are screened.

Storm sampling requirements will be the same as outlined in BMP S-1.

The permittee will perform outfall prioritizations and subsequent annual sampling no later than year four of the permit.

Measurable Goals

1. Prioritize outfalls (that discharge to impaired waters) based on monitoring results
2. Annual sampling of six outfalls
3. Reporting of prioritization and sampling results in the annual report

Schedule

BMP	Year 1	Year 2	Year 3	Year 4	Year 5
BMP S-4			Prioritize outfalls and select the top 6 highest pollutant contributing outfalls	Update prioritization of top pollutant outfalls Perform annual monitoring	Update prioritization of top pollutant outfalls Perform annual monitoring

Responsible Persons

William E. Robinson, Acting General Manager City of Bridgeport WPCA, 695 Seaview Avenue, Bridgeport CT 06607 203-332-5550

Assessment

After 50% of the outfalls that discharge to impaired waters have been screened and based on results described in BMP S-1 the WPCA will prioritize and select six outfalls with the highest pollutant loadings for the annual wet weather monitoring. This prioritization and subsequent annual monitoring will be updated in subsequent years.

Record Keeping

All tracking will be entered into the WPCA computer data tracking program and will be used to update future screening locations.

Reporting

The permittee will perform all reporting as required by the permit. Each year, by April 1st, the permittee will electronically submit an Annual Report to CT DEEP for the previous calendar year. Each annual report will include the municipal review fee and summary of the progress made on the BMPS for each of the six MCM's; including monitoring data, IDDE data, and a written report that includes the following components:

- A description of each BMP.
- All specific reporting requirements as detailed with the MCMs and BMPs of this SMP.
- A schedule of BMPs implementation including a discussion on the current status of implementation for each BMP to be fully or partially completed in that year.
- A discussion on the reasons and a modified BMP schedule for all BMPs which were not completed as scheduled.
- The overall status of each MCM.
- Changes to the responsible persons for any BMP.
- All new or modified BMPs including all details similar to those presented in this SMP.
- A discussion on the status of the permittee's IDDE program including field monitoring results, number and type of illicit discharges detected, and number of illicit discharges eliminated.
- A discussion on the status of the permittee's stormwater monitoring program including the overall status of the monitoring program, a summary of the findings, any significant observations regarding the results, and any modifications to the Plan as a result of the monitoring results.
- A discussion on the control of discharges to impaired waters including applicable BMPs and their respective progress as well as an evaluation of their effectiveness and any modifications made to improve the effectiveness.
- A summary of BMPs planned for the coming year.

Recordkeeping

All documents relating to this permit, including this SMP, will be kept for a minimum of five years following the expiration of the permit. This requirement may be extended by the Commissioner.