# STORMWATER MANAGEMENT PLAN

City of New Britain, Connecticut

Prepared March 2017

Effective Date July 1, 2017

Prepared By

CDM Smith

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# List of Abbreviations, Acronyms and Initialisms

BMPs – best management practices

ConnDOT – Connecticut Department of Transportation

CT – Connecticut

CT DEEP – Connecticut Department of Energy and Environmental Protection

DCIA – directly connected impervious area

DPW – department of public works

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

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

# Stormwater Management Plan

# City New Britain, Connecticut

## Section I: Introduction

This section includes general information on the City of New Britain (City) as well as background information on Municipal Separate Storm Sewer System (MS4) permitting. Additionally, contact information, other nearby MS4s, and a summary of the required minimum control measures (MCMs) is presented.

### I.1 City of New Britain Background

The City of New Britain (City), estimated population of approximately 72,808 according to *United States Census Bureau 2015 Population Estimates* resides in Hartford County in the central portion of the State of Connecticut. The City covers approximately 13.4 square miles and is located southwest of the state capital.

Bordering towns and cities include Newington, Southington, Farmington, Plainville, and Berlin. The major roadways which serve the City include Route 9, Route 72, and the Interstate 84. The City has 12 drainage basins that are delineated on **Figure 1**, these basins generally drain to Bass Brook, Willow Brook, Webster Brook, Piper Brook, and the Quinnipiac River.

### 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) by April 1, 2017. This new permit expands on the requirements specified in the City'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 following summarizes critical dates and submittal requirements in the new permit:

- 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 by 30, 2022.
- Annual reports are due to CT DEEP on April 1st of each year. On January 31st, a draft copy of each Annual report submission 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 unless otherwise noted in a MCM in the following sections. Stormwater discharges from the City Garage and other municipally-owned facilities subject to the DEEP Industrial Stormwater General Permit will continue to be regulated under the conditions of the permit.

Based on the 2010 CT Urbanized Area map, the entire City is an "urbanized area" based on census information and therefore the entire City meets the permit definition of a "priority area".

## I.5 Contact Information

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## I.6 Water Quality Summary and Impaired Waters

The City of New Britain lies within 12 local drainage basins that can be seen in **Table 1**. Most of the drainage basins flow to the major water bodies in the City. These main surface water bodies include Bass Brook, Willow Brook, Webster Brook, Piper Brook, and the Quinnipiac River. These water bodies generally drain to the Quinnipiac and Mattabasset Rivers. New Britain is an inland municipality, and does not have direct discharge of stormwater to ocean water bodies.

***Table 1: Surface Water Quality Classifications***

| Drainage Basin Number | Sub Regional Basin Name | Surface Water Body & Classification | Impaired per Water Quality Standards |
|---|---|---|---|
| 4401-00 | Bass Brook | Lower Pond – N/A<br>Batterson Park Pond - A<br>Bass Brook – A | Not Assessed<br>Yes<br>No |
| 4401-01 | Bass Brook | Bass Brook – A | No |
| 4401-02 | Bass Brook | None | N/A |
| 4401-03 | Bass Brook | Stanley Quarter Pond – N/A<br>Bass Brook – A | Not Assessed<br>No |
| 4402-00 | Piper Brook | Piper Brook - A | Yes |
| 4603-00 | Webster Brook | Webster Brook - A | Yes |
| 4602-00 | Willow Brook | Willow Brook - A<br>Willow Brook Park Pond – N/A<br>Doerr Pond – N/A<br>Shultz Pond – N/A | Yes<br>Not Assessed<br>Not Assessed<br>Not Assessed |
| 4602-04 | Willow Brook | Shuttle Meadow Pond -N/A | Not Assessed |
| 4602-02 | Willow Brook | None | N/A |
| 4602-01 | Willow Brook | None | N/A |
| 4602-03 | Willow Brook | None | N/A |
| 5200-00 | Quinnipiac River | Quinnipiac River – A, B | 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 A

This is considered an 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.

From the *2014 State of Connecticut Integrated Water Quality Report*, **Table 2** summarizes water bodies classified as "impaired" in the City of New Britain.

***Table 2: Impaired Waterbodies in the City of New Britain***

| Waterbody ID | Water Segment Description | Water Segment Length (mi) | Impaired Use | Pollutant | Cause/ Potential Source |
|---|---|---|---|---|---|
| CT4401-00-1-L1_01<br><br>Lake | Batterson Park Pond (Farmington / New Britain) | 0.85 | Not supporting recreation | Chlorophyll-A, Excess Algal Growth, Nutrient/Eutrophication Biological Indicators | Nitrogen and Phosphorus |
| CT5200-00_07<br><br>River | Quinnipiac River | 1.55 | Habitat for Fish, Other Aquatic Life and Wildlife | Cause Unknown<br><br>Physical substrate habitat alterations | Potential sources include industrial point source discharges, municipal discharges, landfills, illicit discharge, remediation sites, groundwater contamination<br><br>Channelization |
| CT4602-00_01<br><br>River | Willow Brook | 1.20 | Habitat for Fish, Other Aquatic Life and Wildlife | Cause Unknown | Potential sources include point source discharges, landfills, illicit discharges, remediation sites, remediation sites, groundwater contamination, combined sewer overflow |
| CT4603-00_01<br><br>River | Webster Brook | 0.80 | Habitat for Fish, Other Aquatic Life and Wildlife | Cause Unknown | |
| CT4402-00_02<br><br>River | Piper Brook | 0.60 | Habitat for Fish, Other Aquatic Life and Wildlife | Cause Unknown | Potential sources include industrial point source discharge, illicit discharge, insufficient septic systems, remediation sites, groundwater contamination |

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 New Britain are included in the **Table 3**.

***Table 3 – TMDLs Applicable to City of New Britain Waterbodies***

| Name of TMDL | Pollutant | Waterbody |
|---|---|---|
| Statewide Bacteria TMDL | Bacteria | Piper Brook |
| A TMDL Analysis for Batterson Park Pond, Farmington / New Britain, CT | Nitrogen and Phosphorus | Batterson Park Pond |
| A TMDL Analysis for the Mattabesset River Regional Basin | Bacteria | Mattabesset River / John Hall Brook / Little Brook / Spruce Brook / Coles Brook / Miner Brook / Willow Brook 4600 / Belcher Brook / Webster Brook / Sawmill Brook / Coginchaug River / Willow Brook 4602 |
| A TMDL Analysis for the Pequabuck River Sub-Regional Basin | Bacteria | Coppermine Brook / Poland River / Pequabuck River |
| A TMDL Analysis for the Quinnipiac River Regional Basin | Bacteria | Harbor Brook / Misery Brook / Quinnipiac River / Sodom Brook |
| 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 |
| Interim Phosphorus Reduction Strategy | Phosphorus | Certain CT Inland waters |

Based on the DEEP Surface Water Classifications and established TMDLs, the Quinnipiac River, and the Batterson Park Pond were identified as the surface waters that should take highest priority in the City's efforts to address stormwater impacts.

## I.7 Interconnected MS4s

The following is a preliminary list of MS4 permittees which are interconnected with the City of New Britain. The areas covered by these MS4s will not be covered under this SMP. The City will coordinate implementation with these 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 New Britain.
- Town of Berlin, CT
- Town of Farmington, CT
- Town of Newington, CT
- Town of Plainville, CT
- Central Connecticut State University

## 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 4** for the dates for "year" described in this SMP. Annual reporting follows the calendar year.

***Table 4 – Yearly Schedule Definition***

| 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 5** for a summary of BMPs that the 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.

## I.10 Record Keeping

The City will maintain a centralized electronic file with all documents related to compliance with the MS4 Permit.

## *Table 5 – Best Management Practices Summary*

| Minimum Control Measure | Description of Best Management Practice | Responsible Department |
|---|---|---|
| Public Education and Outreach | BMP 1-1 Implement public education program | DPW |
| | BMP 1-2 Address education/outreach for pollutants of concern | DPW |
| Public Involvement/ Participation | BMP 2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports | DPW |
| Illicit Discharge Detection and Elimination (IDDE) | BMP 3-1 Develop written IDDE program | DPW |
| | BMP 3-2 Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping) | DPW; Engineering |
| | BMP 3-3 Develop citizen reporting program | DPW |
| | BMP 3-4 Confirm legal authority to eliminate illicit discharges | DPW; Engineering; Licenses, Permits & Inspections |
| | BMP 3-5 Develop record keeping system for IDDE tracking | DPW |
| | BMP 3-6 Address IDDE in areas with pollutants of concern | DPW |
| | BMP 3-7 Outfall and interconnection dry weather screening and sampling | DPW |
| | BMP 3-8 Sanitary Sewer Overflows (SSOs) inventory | DPW |
| 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 | Engineering; Licenses, Permits & Inspections |
| | BMP 4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval | Licenses, Permits & Inspections |
| | BMP 4-3 Review site plans for stormwater quality concerns | Engineering; Licenses, Permits & Inspections |
| | BMP 4-4 Conduct site inspections | Licenses, Permits & Inspections |
| | BMP 4-5 Implement procedure to allow public comment on site development | Licenses, Permits & Inspections |
| | BMP 4-6 Implement procedure to notify developers about DEEP construction stormwater permit | Engineering; Licenses, Permits & Inspections |
| 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 | Engineering; Licenses, Permits & Inspections |
| | BMP 5-2 Enforce Low Impact Development (LID)/ runoff reduction requirements for development and redevelopment projects | Engineering; Licenses, Permits & Inspections |
| | BMP 5-3 Implement Long-term Maintenance plan for stormwater basins and | Engineering, DPW |
| | BMP 5-4 DCIA mapping | Engineering |
| | BMP 5-5 Address post-construction Issues in areas with pollutants of concern | Engineering |
| Pollution Prevention/ Good House Keeping | BMP 6-1 Develop/implement formal employee training program | DPW |
| | BMP 6-2 Implement MS4 property and operations maintenance | DPW |
| | BMP 6-3 Implement coordination with interconnected MS4s | DPW |
| | BMP 6-4 Develop and implement program to control other sources of pollutants to the MS4 | DPW, Engineering |
| | BMP 6-5 Evaluate additional measures for discharges to impaired waters | DPW |
| | BMP 6-6 Track projects that disconnect DCIA | Engineering |
| | BMP 6-7 Develop/implement infrastructure repair/rehab program | DPW |
| | BMP 6-8 Develop/implement plan to identify/prioritize retrofit projects | Engineering |
| | BMP 6-9 Develop/implement street sweeping program | DPW |
| | BMP 6-10 Develop/implement catch basin cleaning program | DPW |
| | BMP 6-11 Develop/implement snow management practices | DPW |
| Wet Weather Monitoring | BMP S-1 Outfall screening | DPW |
| | BMP S-2 Inventory and mapping of discharges to impaired waters | DPW |
| | BMP S-3 Follow-up investigations of drainage areas | DPW |
| | BMP S-4 Annual monitoring of priority outfalls | DPW |
| Annual Reporting | Compile data and prepare annual reports | DPW |

# City of New Britain, Connecticut
# Outfall Inspections

Figure 1
February 2017

**Legend**

- Outfall: Inspection and Dry Weather Form Complete (262)
- Outfall: Could Not Access or Locate (33)
- Subregional Drainage Basin
- Local Drainage Basin
- Impaired River (2014)
- Impaired Lake (2014)
- Impaired Estuary (2014)

**Scale**

1 inch = 1,000 feet

0 1,000 2,000 Feet

N

CDM Smith

West Hartford
Farmington
Plainville
Southington
Berlin
Newington

4300-00
4300-26
4315-15
4401-00
4403-01
4403-07
4402-00
4402-01
4401-01
4401-02
4401-03
4403-02
4403-00
4402-03
5200-00
4602-01
4602-02
4602-03
4602-04
4602-05
4600-00
4603-01
4603-02
4603-00
4402-00

Farmington Reservoir
Batterson Park Pond
Lower Pond 2
Doerr Pond
Shuttle Meadow Reservoir
Mason Pond
Lake

BATTERSON DR
BRADFORD WALK
BRITTANY FARMS RD
BLOGGETT ROY DR
BELLRIDGE RD
YARMOR DR
HIGHRIDGE RD
COUNTRY CLUB RD
ALEXANDER RD
CIANCI RD
HUBER ST
DONNELL RD
AWSP POOL LOOP RD
AWSP POND LOOP RD
HARTFORD RD
VILLAGE SQUARE DR
RAMP
EXIT 39
BLISS RD
LEWIS RD
DORMAN RD
MIRIAM RD
MARIGOLD DR
NICHOLLY DR
HOWE RD
MALIKOWSKI CIR
LURTON ST
HUTCHINSON ST
EMILY DR
RUTH RD
RONALD RD
SKEFFER ST
HORSEPLAIN RD
PENTLOW AVE
CARROLL ST
JOY LN
KIM DR
BLAKE RD
DRIVEWAY
STANLEY DR
WALKER RD
DEAN DR
WESTOVER RD
HEATHER LN
MCKINLEY DR
EASTWICK RD
FARMINGTON AVE
HIDDEN GROVE N
HIDDEN GROVE S
GOVERNOR ST
OVERLOOK AVE
OAKLAND AVE
PIERREMOUNT AVE
BEACH ST
HIGHVIEW AVE
MCCLINTOCK ST
DRIVEWAY
BIRUTA ST
BROWN ST
HAYES ST
MILLER ST
ALDEN ST
CARMODY ST
CABOT ST
CONCORD ST
LASALLE ST
WILCOX ST
OAK ST
DALY AVE
WEST ST
PUTNAM ST
TALCOTT ST
EXIT 28-28A
SEXTON ST
CLARK ST
LAWLOR ST
TREMONT ST
HIGH ST
BEAVER ST
WASHINGTON ST
GROVE ST
BURRITT ST
ALBANY AVE
BOOTH ST
LYMAN ST
GOLD ST
SILVER ST
BROAD ST
SMITH ST
NORTH ST
WINTER ST
MARTIN LUTHER KING DR
EXIT 28A
EXIT 28
LAFAYETTE ST
ORANGE ST
E MAIN ST
MYRTLE ST
CURTIS ST
LAKE ST
GROVE HILL
MAIN ST
EXIT 9
RAMP
EXIT 27
HARRY TRUMAN OVPS
HERALD SQ
COLUMBUS BLVD
CHESTNUT ST
CHURCH ST
DWIGHT ST
WOODLAND ST
RHODES ST
MILLARD ST
NEWINGTON AVE
SUNRISE AVE
HOWARD ST
DALY AVE
SMALLEY ST
EAST ST
CHILDS ST
CORBIN ST
MARKET ST
WILLOWOOD ST
JUBILEE ST
LINDEN ST
BELDEN ST
CHAPMAN ST
JOHN DOWNEY DR
PARK ST
PLEASANT ST
AUSTIN ST
KELSEY ST
RUTHERFORD ST
HENRY ST
WHITING ST
GOODWIN ST
FAIRVIEW ST
JOHN ST
EXIT 26
PEARL ST
FRANKLIN SQ
PROSPECT ST
CAMP ST
GRAND ST
GARDEN ST
HARRISON ST
FOREST ST
VINE ST
WHS LOOP RD
LINCOLN ST
GRISWOLD ST
ARCH ST
WINTHROP ST
HART ST
COLUMBIA ST
GLEN ST
MAPLE ST
BASSETT ST
EXIT 25
CHERRY ST
S MAIN ST
WHP WEST MAIN ST ACCESS
WHP GRAND ST ACCESS
W MAIN ST
HARTFORD SQ
STATE HWY 72
BLACK ROCK AVE
EXIT 7
PENNSYLVANIA AVE
MAY ST
BUNNELL ST
WOOSTER ST
BARNES ST
TEXAS DR
DOGWOOD DR
GARRY DR
WESTWOOD DR
HICKORY HILL RD
STEELE ST
WIGHTMAN RD
LAUREL RD
ELDRIDGE RD
TEN ACRE RD
BROOKSIDE RD
S MOUNTAIN DR
CEDARWOOD DR
OAKWOOD DR
VICTORIA RD
BIRCHWOOD DR
WIEGANDS DR
STREAMSIDE LN
RESERVOIR RD
KENWOOD DR
ROSLYN DR
CARETAKER RD
SHUTTLE MEADOW AVE
LYONS ST
LINWOOD ST
GREENWOOD ST
BUELL ST
BROOK ST
POND ST
MILL ST
KENSINGTON AVE
LINCOLN ST
DOVER RD
KENT RD
CLINIC DR
JOHN KABONIC WAY
VETERANS DR
COMMERCE CIR
ROOSEVELT ST
KENNEDY DR
BENSON ST
FULTON ST
CHRISTIAN LN
EDGEWOOD AVE
LONG SWAMP RD
VILLAGE GREEN DR
SKINNER DR
STONEGATE RD
JEROME DR
ELAM ST
ROME ST
MAPLEHURST AVE
PINEHURST AVE
STERLING ST
BELMONT ST
QUEEN ST
MITCHELL ST
HILLHURST AVE
PERSHING AVE
EXIT 36
I-84
ALTON BROOKS WAY
SLATER RD
NEANDA ST
GOLDEN HILL ST
JORDAN ST
OSGOOD AVE
JONES DR
STANWOOD DR
BEECHWOOD DR
TORKOM DR
SHENFIELD ST
OVERHILL AVE
RICHARD ST
ARMISTICE ST
BOND ST
CLEVELAND ST
RUSSWIN RD
N MOUNTAIN RD
EXIT 75
EXIT 6
NANCY RD
BAY AVE
KENYON CIR
UNNAMED STREET
STATE HWY 9
DIX AVE
THIRD ST
FIFTH ST
VIBBERTS AVE
FIRST ST
BUENA VISTA AVE
THORNLEY ST
CONNECTICUT AVE
CITY AVE
JUDD AVE
SERVICE RD
PAUL MANAFORT DR
HAZELMERE RD
SYLVAN RD
PENDLETON RD
SUNNYSLOPE DR
PAPE RD
DENNIS DR
MARLIN RD
BARBOUR RD
FAIRWAY DR
ELLA GRASSO BLVD
SQP NORTH ACCESS
SQP EAST ACCESS
HAROLD LEWIS DR
KAISER DR
PAUL MANAFORT DR
HIGHLAND TER
EDDY GLOVER BLVD
COMMONWEALTH AVE
FRANCIS ST
STRATFORD RD
ROXBURY RD
BRIGHTON ST
STEWART ST
DERBY ST
DUDLEY ST
ALLEN ST
JACKSON ST
HAWTHORNE ST
HILLCREST AVE
AMHERST ST
FOXON PL
HATCH ST
STANLEY ST
LEDGECREST AVE
ROCKY HILL AVE
BINGHAM ST
DEVENS ST
ELLIS ST
COLLINS ST
LANDERS AVE
BERKLEY ST
LOWELL ST
GREEN ST
MANSFIELD AVE
WYNOLA AVE
SOUTH ST
HARTFORD RD
HATFORD RD
SERVICE RD
PAUL MANAFORT DR
STATE HWY 9
ROCKY HILL AVE
EXIT 29
RAMP
EXIT 35
EXIT 34
EXIT 33
EXIT 32
EXIT 31
EXIT 30
EXIT 29
EXIT 28
EXIT 27
EXIT 26
EXIT 25
EXIT 24
EXIT 23
EXIT 22
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EXIT 19
EXIT 18
EXIT 17
EXIT 16
EXIT 15
EXIT 14
EXIT 13
EXIT 12
EXIT 11
EXIT 10
EXIT 9
EXIT 8
EXIT 7
EXIT 6
EXIT 5
EXIT 4
EXIT 3
EXIT 2
EXIT 1

# Stormwater Management Plan

# City of New Britain, 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 New Britain 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 UCONN NEMO, CT DEEP, and USEPA. 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 sheets. 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 and implement public education program<br>Summarize data | Implement public education program<br>Summarize data | Implement public education program<br>Summarize data | Implement public education program<br>Summarize data | Implement public education program<br>Summarize data |

### Responsible Persons

Director of Public Works; Water Superintendent

### Assessment

A documented review of the content and effectiveness of the program will be performed. Effectiveness will be based on public feedback and distribution level of public education materials.

## 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

Director of Public Works, Water Superintendent

### Assessment

A documented review of the content and effectiveness of the program will be performed. Effectiveness will be based on public feedback and distribution level of public education materials.

## Minimum Control Measure 1: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 1-1 Implement public education program** | | | | | |
| Develop public education program | X | | | | |
| Implement public education program | X | X | X | X | X |
| Summarize data | X | X | X | X | X |
| **BMP 1-2 Address education/outreach for pollutants of concern** | | | | | |
| Identify pollutants of concern and incorporate into materials under BMP 1-1 | X | | | | |

# Stormwater Management Plan

# City of New Britain, 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

Director of Public Works; Water Superintendent

### Assessment

Document when and where SMP and annual reports are made publicly available.

## Minimum Control Measure 2: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 2-1 Comply with public notice requirements for the Stormwater Management Plan and Annual Reports** | | | | | |
| Publish SMP and annual reports to website | X | X | X | X | X |
| Issue public notice soliciting comments | X | X | X | X | X |

# Stormwater Management Plan

# City of New Britain, 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. The entire City of New Britain is in an urbanized area and therefore the IDDE Program will be implemented city-wide.

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
- BMP 3-7 Outfall and interconnection dry weather screening and sampling
- BMP 3-8 Sanitary sewer overflows (SSOs) inventory

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)
- Sanitary sewer overflows (SSOs) inventory (BMP 3-8)
- Assessment and priority ranking of catchments
- Outfall and interconnection screening and sampling procedures (BMP 3-7)
- 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<br><br>Program review | Implement IDDE Program<br><br>Program review | Implement IDDE Program<br><br>Program review | Implement IDDE Program<br><br>Program review |

### Responsible Persons

Water Superintendent, Water and Sewer Superintendent

### Assessment

Document date of IDDE Program completion and meet the goals and schedules in the IDDE Program

## BMP 3-2 Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping)

### Description

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' City-wide. The following parameters will be included:

- Type, material, 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 or the nearest named waterbody to which the outfall eventually discharges
- Watershed name and sub regional drainage basin number
- Date of most recent outfall inspection, the condition, and indicators of illicit discharges

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
- Identification of waterbodies with impairments

### Measurable Goals

1. Develop stormwater drainage map and database
2. Update mapping at a minimum annually
3. Export the database into excel format for annual reports

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 3-2 | Develop mapping and database for 50% of the City<br>Excel Summary | Develop mapping and database for 100% of the City<br>Excel Summary | Develop mapping and database with additional required info<br>Excel Summary | Update mapping and database; Excel Summary | Update mapping and database; Excel Summary |

### Responsible Persons

Water Superintendent, Water and Sewer Superintendent, GIS Technician

### Assessment

Meeting the goals and schedule set forth herein.

## 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

Water Superintendent, Water and Sewer Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 3-4 Confirm legal authority to eliminate illicit discharges

### Description

The permittee will confirm legal authority to prohibit all illicit discharges to the storm sewer system. Legal authority will also require for removal of illicit discharges; investigate and eliminate illicit discharges; control discharge of spills and prohibit dumping; enforce legal authority; and authorized fines, penalties, or recoup costs from anyone creating an illicit discharge or spilling or dumping. The permittee will confirm authority within one year of the effective permit start date.

### Measurable Goals

1. Confirm legal authority

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 3-4 | Confirm and Enforce legal authority | Enforce legal authority | Enforce legal authority | Enforce legal authority | Enforce legal authority |

### Responsible Persons

Director of Public Works, City Engineer, Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 3-5 Develop record keeping system for IDDE tracking

### Description

The permittee will develop a record keeping system for tracking of information pertinent to IDDE. The information will be tracked based on the IDDE Program and therefore be incorporated with MS4 mapping and associated databases. 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 feasible. If 60 days is not feasible then the permittee will create a plan to eliminate the discharge no longer than 180 days from identification to the maximum extent practicable. If 180 days is not feasible, the City will notify CT DEEP and EPA on a case-by-case basis.

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
- Signs of failing septic system will be report to the New Britain Health Department

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
- Documentation of the illicit discharge removal

### 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<br><br>Track IDDE | Track IDDE | Track IDDE | Track IDDE | Track IDDE |

### Responsible Persons

Water Superintendent, Water and Sewer Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

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

### Description

For MS4 discharges to impaired waters (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, the City is 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

Water Superintendent, Water and Sewer Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 3-7 Outfall and interconnection dry weather screening and sampling

### Description

The City of New Britain completed a dry weather of outfalls and interconnections screening and sampling program in October and November 2016 and submitted the data to CT DEEP on January 15, 2017. The outfalls that were not located or accessible during the 2016 program and additional MS4 interconnections that are identified will be dry weather screened and sampled during the first three years of the permit.

### Measurable Goals

1. Screen and sample outfalls and interconnections not located in 2016

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 3-7 | Locate and screen outfalls | Locate and screen outfalls | Locate and screen outfalls | | |

### Responsible Persons

Water Superintendent, Water and Sewer Superintendent

### Assessment

Document screening and sampling results.

## BMP 3-8 Sanitary Sewer Overflows (SSOs) Inventory

### Description

The permittee will complete an audit of all known locations where SSOs have discharged in the past 5 years. Within a 120-day period of the permit start date the permittee will inventory these locations with the following characteristics:

- Location of SSO
- SSO source location (surface water or directly into MS4 system)
- Date and time of SSO discharge
- Estimated volume of SSO discharge
- Description of SSO discharge
- Corrective measure planning
- Corrective measure implementation dates

Within 5 days of a new SSO occurrence the permittee with notify CT DEEP via written notice and include information on the SSO characteristics listed above. Moreover, an inventory of all SSOs will continually be updated and maintained as part of the permit and each year will be documented within the annual report. In addition to completing an inventory the permittee will implement measures to eliminate the SSO to the best of its ability.

### Measurable Goals

1. Develop existing SSO inventory
2. Notify CT DEEP after each SSO

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 3-8 | SSO inventory within 120 days.<br>Report new SSOs | Report new SSOs | Report new SSOs | Report new SSOs | Report new SSOs |

### Responsible Persons

Water Superintendent, Water and Sewer Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## Minimum Control Measure 3: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 3-1 Develop written IDDE program** | | | | | |
| Develop IDDE program with implementation schedule | X | | | | |
| Implement IDDE program | | X | X | X | X |
| Perform review of IDDE program | | X | X | X | X |
| **BMP 3-2 Develop list and maps of all MS4 stormwater outfalls in urbanized and priority areas (with conveyance and structure mapping)** | | | | | |
| Develop mapping and database for 50% of City | X | | | | |
| Develop mapping and database for 100% of City | | X | | | |
| Develop mapping and database with additional required information | | | X | | |
| Update mapping and database | | | | X | X |
| Export database to excel summary | X | X | X | X | X |
| **BMP 3-3 Develop citizen reporting program** | | | | | |
| Develop citizen reporting program | X | | | | |
| Investigate citizen reports | X | X | X | X | X |
| **BMP 3-4 Confirm legal authority to eliminate illicit discharges** | | | | | |
| Confirm legal authority | X | | | | |
| Enforce legal authority | X | X | X | X | X |
| **BMP 3-5 Develop record keeping system for IDDE tracking** | | | | | |
| Develop IDDE tracking system | X | | | | |
| Track IDDE | X | X | X | X | X |
| **BMP 3-6 Address IDDE in areas with pollutants of concern** | | | | | |
| Review impaired water guidance and TMDLs | X | | | | |
| Evaluate/track progress of BMPs for impaired waters | | X | X | X | X |
| **BMP 3-7 Outfall and interconnection dry weather screening and sampling** | | | | | |
| Located and screen outfalls | X | X | X | | |
| **BMP 3-8 Sanitary Sewer Overflows (SSOs) Inventory** | | | | | |
| Create SSO inventory within 120 days of permit effective date | X | | | | |
| Report new SSOs | X | X | X | X | X |

# 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 a procedure to allow public comment on site development
- BMP 4-6 Implement a 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 will confirm legal authority to include the following items relating to construction site stormwater runoff:

1. Requirements for developers, construction site operators, and contractors 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 and all established legal authority
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 will confirm legal authority within two years.

### Measurable Goals

1. Confirm legal authority (if modifications are need to establish legal authority, it will be done by Year 2).

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 4-1 | Confirm legal authority (modify regulations if needed) | Modify regulations if necessary | Enforce legal authority | Enforce legal authority | Enforce legal authority |

### Responsible Persons

City Engineer, Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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 the 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

Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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

City Engineer, Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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 and document site inspections

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 4-4 | Perform and document site inspections | Perform and document site inspections | Perform and document site inspections | Perform and document site inspections | Perform and document site inspections |

### Responsible Persons

Zoning Enforcement Officer

### Assessment

Meeting the goals and schedule set forth herein.

## 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.

The Licenses, Permits, and Inspections Department will receive comments on all site developments in person at Department public meetings and will provide recorded responses in the meeting minutes.

### 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

Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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 and contractors 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.

The permittee will include this requirement on the stormwater website. Additionally, the Licenses, Permits & Inspections Department will create a handout which will be given to all developers when they visit the Department office.

### 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

City Engineer, Director of Licenses, Permits & Inspections Department

### Assessment

Meeting the goals and schedule set forth herein.

## Minimum Control Measure 4: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 4-1 Implement, upgrade (as necessary) and enforce land use regulations or other legal authority to meet requirements of MS4 general permit** | | | | | |
| Start process for establishing legal authority | X | | | | |
| Establish legal authority | | X | | | |
| Enforce legal authority | | | X | X | X |
| **BMP 4-2 Develop/implement plan for interdepartmental coordination in site plan review and approval** | | | | | |
| Develop interdepartmental coordination plan by July 1, 2017 | X | | | | |
| Implement interdepartmental coordination plan | X | X | X | X | X |
| **BMP 4-3 Review site plans for stormwater quality concerns** | | | | | |
| Perform site plan reviews | X | X | X | X | X |
| **BMP 4-4 Conduct site inspections** | | | | | |
| Perform site inspections | X | X | X | X | X |
| **BMP 4-5 Implement procedure to allow public comment on site development** | | | | | |
| Develop procedure to receive public comments on site development | X | | | | |
| Implement procedure to receive public comments on site development | X | X | X | X | X |
| **BMP 4-6 Implement procedure to notify developers about DEEP construction stormwater permit** | | | | | |
| Implement a procedure to notify developers of DEEP construction stormwater permit | X | | | | |
| Continue procedure to notify developers of DEEP construction stormwater permit | | X | X | X | X |

# Stormwater Management Plan

# City of New Britain, 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

The permittee will establish and/or update legal authority relative to developers and contractors using low impact development (LID), runoff practices, and runoff reduction standards from the Connecticut Stormwater Quality Manual to the maximum extent possible. 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<br>Develop regulations to establish legal authority | Develop regulations that establish legal authority and adopt the regulations | Develop regulations that establish legal authority and adopt the regulations | Develop regulations that establish legal authority and adopt the regulations | |

### Responsible Persons

City Engineer, Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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 4. In Years 1-4, 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 current regulations | Enforce current regulations | Enforce new regulations |

### Responsible Persons

City Engineer, Director of Licenses, Permits & Inspections

### Assessment

Meeting the goals and schedule set forth herein.

## 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 City, or those for which the City maintains an easement or legal authority over.

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 City 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

City Engineer, Water and Sewer Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 5-4 DCIA Mapping

### Description

The permittee intends to determine the DCIA for each stormwater outfall catchment in the MS4 within three years of the effective date of the new permit. 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 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

City Engineer

### Assessment

Meeting the goals and schedule set forth herein.

## 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 included in post-construction designs. 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 City 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

City Engineer

### Assessment

Meeting the goals and schedule set forth herein.

## Minimum Control Measure 5: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning** | | | | | |
| Evaluate current regulations | X | | | | |
| Develop regulations that establish legal authority and adopt the regulations | X | X | X | X | |
| **BMP 5-2 Enforce low impact development (LID)/ runoff reduction requirements for development and redevelopment projects** | | | | | |
| Enforce current regulations | X | X | X | X | |
| Enforce new regulations | | | | | X |
| **BMP 5-3 Implement long-term maintenance plan for stormwater basins and treatment structures** | | | | | |
| Develop long-term maintenance plan | X | X | | | |
| Implement long-term maintenance plan | | | X | X | X |
| **BMP 5-4 DCIA Mapping** | | | | | |
| Develop methodology for DCIA calculation | X | | | | |
| Begin calculating DCIA of each catchment | | X | | | |
| Finalize DCIA calculation of each catchment | | | X | | |
| Update DCIA calculation | | | | X | X |
| **BMP 5-5 Address post-construction issues in areas with pollutants of concern** | | | | | |
| Identify projects in catchments that discharge to impaired waters | X | X | X | X | X |

# Stormwater Management Plan

# City of New Britain, 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 the previous MS4 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 standard operating procedures with the MS4 permit, 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

Director of Public Works

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 6-2 Implement MS4 property and operations maintenance

### Description

The permittee will develop or update maintenance procedures for City owned or operated 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

The annual reports will include documentation of the procedures in effect for each of the topics above.

### Measurable Goals

1. Develop and evaluate maintenance procedures
2. Implement maintenance procedures

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 6-2 | Develop, evaluate, and implement maintenance procedures | Implement maintenance procedures | Implement maintenance procedures | Implement maintenance procedures | Implement maintenance procedures |

### Responsible Persons

Director of Public Works, Water Superintendent, Field Services Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 6-3 Implement coordination with interconnected MS4s

### Description

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

### Measurable Goals

1. Identify all interconnected MS4s
2. Contact each interconnect MS4 to coordinate SMP goals

### Schedule

| BMP | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| BMP 6-3 | Identify and contact interconnected MS4s | Coordinate with interconnected MS4s | Coordinate with interconnected MS4s | Coordinate with interconnected MS4s | Coordinate with interconnected MS4s |

### Responsible Persons

Director of Public Works

### Assessment

Meeting the goals and schedule set forth herein.

## 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

Director of Public Works, City Engineer

### Assessment

Meeting the goals and schedule set forth herein.

## 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 of 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 City 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
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 waters
4. In each annual report, document the actions taken to implement these programs and include an estimate of fertilizer and turf reduction

### 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

Director of Public Works, Water Superintendent, Field Services Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## 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 date of the new permit 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

City Engineer

### Assessment

Meeting the goals and schedule set forth herein.

## 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 City 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 a repair/rehab 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 program | Repair and rehabilitate MS4 infrastructure | Repair and rehabilitate MS4 infrastructure | Repair and rehabilitate MS4 infrastructure | Repair and rehabilitate MS4 infrastructure |

### Responsible Persons

Water Superintendent, Field Services Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## 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 with prioritization by priority area.

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 a retrofit plan to include tracking of DCIA (see BMP 6-6)
2. Removal of 1% of DCIA annually (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

City Engineer

### Assessment

Meeting the goals and schedule set forth herein.

## BMP 6-9 Develop/implement street sweeping program

### Description

The permittee will provide street sweeping on all City owned or operated streets and parking lots one time per year. All street sweepings will be properly disposed of by the permittee.

Additional street sweepings have been designated for main, heavily trafficked roads, and roads which have historically required multiple street sweepings each year in order to mitigate the effects of heavy pollutant loads on the MS4.

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. 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

Field Services Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## 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 city-owned catch basins.

Catch basins 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. Inspection and maintenance will also be prioritized for catch basins near impaired waters and near construction activities.

The permittee will create a plan for optimizing catch basin cleaning to ensure no catch basin exceeds sediment loading of 50% full. The City will optimize catch basin cleaning by prioritizing catch basins with the highest sediment loadings from recent cleanings or inspections, and known catch basins to accumulate sediment at above average rates. This information will also be documented in the first 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 metrics and details of the 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

Superintendent of Water of Quality, Superintendent of Water and Sewer

### Assessment

Meeting the goals and schedule set forth herein.

## 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 develop standard operating procedures for all aspects of salt and sand use to minimize impacts to receiving waters (while maintain public safety), 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 for the application of materials. 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 6-11 | 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

Field Services Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## Minimum Control Measure 6: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP 6-1 Develop/implement formal employee training program** | | | | | |
| Perform employee training | X | X | X | X | X |
| **BMP 6-2 Implement MS4 property and operations maintenance** | | | | | |
| Develop and evaluate maintenance procedures | X | | | | |
| Implement maintenance procedures | X | X | X | X | X |
| **BMP 6-3 Implement coordination with interconnected MS4s** | | | | | |
| Identify interconnected MS4s | X | | | | |
| Coordinate with interconnected MS4s | X | X | X | X | X |
| **BMP 6-4 Develop/implement program to control other sources of pollutants to the MS4** | | | | | |
| Develop pollutant source control program | X | | | | |
| Implement pollutant source control program | X | X | X | X | X |
| **BMP 6-5 Evaluate additional measures for discharges to impaired waters** | | | | | |
| Develop turf management policy and source management program | X | | | | |
| Implement turf management policy for discharges to Nitrogen or Phosphorus impaired waters | X | X | X | X | X |
| Implement source management program and waterfowl program for discharges to Bacteria impaired waters | X | X | X | X | X |
| **BMP 6-6 Track projects that disconnect DCIA** | | | | | |
| Track DCIA percentage | X | X | X | X | X |
| **BMP 6-7 Develop/implement infrastructure repair/rehab program** | | | | | |
| Evaluate MS4 infrastructure and develop program | X | | | | |
| Repair and rehabilitate MS4 infrastructure | X | X | X | X | X |
| **BMP 6-8 Develop/implement plan to identify/prioritize retrofit projects** | | | | | |
| Develop retrofit plan | X | X | X | | |
| Remove 1% of DCIA | | | | X | X |
| **BMP 6-9 Develop/implement street sweeping program** | | | | | |
| Annual Street Sweeping | X | X | X | X | X |
| **BMP 6-10 Develop/implement catch basin cleaning program** | | | | | |
| Develop catch basin cleaning and inspection procedures | X | | | | |
| Implement catch basin cleaning and inspection procedures | X | X | X | X | X |
| **BMP 6-11 Develop/implement snow management practices** | | | | | |
| Develop / update snow management measures and practices | X | | | | |
| Implement snow management measures and practices | X | X | X | X | X |

# Stormwater Management Plan

# City of New Britain, Connecticut

## 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 of bacteria, nitrogen, phosphorus and mercury 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

Water Superintendent

## Assessment

Meeting the goals and schedule set forth herein.

## 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

Water Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## 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 date of the new permit.

### 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 | Develop tracking system/reporting list of all outfalls selected for investigation | Update tracking system | Perform follow-up investigations | Perform follow-up investigations | Perform follow-up investigations |

### Responsible Persons

Water Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## BMP S-4 Annual monitoring of priority outfalls

### Description

The City 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 City 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 City will perform outfall prioritizations and subsequent annual wet weather 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 wet weather 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<br>Perform annual monitoring | Update prioritization of top pollutant outfalls<br>Perform annual monitoring |

### Responsible Persons

Water Superintendent

### Assessment

Meeting the goals and schedule set forth herein.

## Minimum Control Measure Wet Weather Monitoring: Summary Table

| BMP/Goal | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
|---|---|---|---|---|---|
| **BMP S-1 Outfall Screening** | | | | | |
| Perform wet weather screening | X | X | X | X | X |
| Complete 50% completion of wet weather screening | | | X | | |
| Complete 100% completion of wet weather screening | | | | | X |
| **BMP S-2 Inventory and mapping of discharges to impaired waters** | | | | | |
| Complete inventory and mapping of discharges to impaired waters | X | X | | | |
| **BMP S-3 Follow-up investigations of drainage areas** | | | | | |
| Develop tracking system/reporting list of all outfalls selected for investigation | X | | | | |
| Update tracking system | | X | | | |
| Perform follow-up investigations | | | X | X | X |
| **BMP S-4 Annual monitoring of priority outfalls** | | | | | |
| Prioritized outfalls and select top 6 highest pollutant contributing outfalls | | | X | | |
| Update prioritization of top pollutant outfalls | | | | X | X |
| Perform annual monitoring | | | | X | X |

## Reporting

The Water Superintendent 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. The annual report will be made available by January 31st for public review and comment. 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.

# Stormwater Management Plan Certification

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in this document or its attachments may be punishable as a criminal offense, in accordance with Section 22a-6 of the Connecticut General Statutes, pursuant to Section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute.

Chief Elected Official/Principal Executive Officer Signature

Mayor

Title

Erin Stewart

Chief Elected Official/Principal Executive Officer Printed Name

3.24.17

Date

Preparer (if different than above) Signature

Senior Project Manager, CDM Smith

Title

Cynthia Baumann, PE

Preparer (if different than above) Printed Name

March 23, 2017

Date

CDM Smith