NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

# Phase II MS4 - CITY OF DOVER Permit No. DE 0051161

# STORMWATER MANAGEMENT PLAN: 2016 - 2020



To Protect and Improve the Quality of Dover's Waterways

# **Table of Contents**

Introd	uction .		4
Storm	water N	Nanagement Plan Elements	5
1.0	Public	Education and Outreach	17
	1.1	Stormwater quality website	17
	1.2	Materials for distribution	18
	1.3	Alternative information sources	19
	1.4	Public events	20
2.0	Public	Involvement and Participation	20
	2.1	Public Reporting of Illicit Discharges and Illegal Dumping	20
	2.2	Public Participation Events	20
	2.3	Education of Pet Owners	22
	2.4	Public Review Processes	22
	2.5	Stormwater Management Committees	23
	2.6	Memorandum of Agreement	23
3.0	Illicit D	Discharge Detection and Elimination	24
	3.1	Database and map	24
	3.2	Dry weather outfall inspections	26
	3.3	Catch basin cleaning and maintenance of priority catch basins	27
	3.4	Ordinances	27
	3.5	Funding	28
	3.6	Training	28
	3.7	Promote public reporting	29
	3.8	IDDE reporting	29
4.0	Constr	uction Site Stormwater Runoff Control	30
	4.1	Erosion and Sediment Control	30
	4.2	Education/outreach and training for construction site operators	31
	4.3	Memorandum of Agreement	31
	4.4	Reporting	32
5.0	Post-C	onstruction Stormwater Runoff Management	32
	5.1	Structural BMPs	33
	5.2	Ordinance	33
	5.3	Memorandum of Agreement	34
6.0	Polluti	on Prevention and Good Housekeeping	34
	6.1	Storm sewer system maintenance	35

# CITY OF DOVER STORMWATER MANAGEMENT PLAN

6.2	Pesticide management	35
6.3	Street sweeping	36
6.4	Snow and ice program	37
6.5	Vehicle washing	37
6.6	Vehicle maintenance	38
6.7	Spill prevention and response	38
6.8	Trash and Recyclables collection	39
6.9	Leaf Collection and Recycling	39
6.10	Inspection of Municipal Facilities	40
6.11	New construction and land disturbance	40
6.12	Employee training	41
Report	ting	41

# LIST OF TABLES

7.0

Table 1. Matrix of Minimum Control Measures.

# LIST OF FIGURES

Figure 1. Map of City of Dover Phase II area.

# Introduction

The City of Dover has a population of over 37,000 and provides drinking water, wastewater and stormwater services to its citizens. All of Dover drains into one of three watersheds: St. Jones River, Leipsic River, and Little Creek, which eventually drain into the Delaware Bay and the Atlantic Ocean. Within the City limits, the storm sewer system contains over 6,000 catch basins and manholes and over 600 outfalls. A properly functioning storm sewer system reduces flooding, improves water quality and limits impacts to business and tourism.

This Stormwater Management Plan (SWMP) documents the activities the City will implement in order to comply with the requirements of MS4 Phase II Permit WPCC 3033/03.



Figure 1. City of Dover Phase II permit boundary.

# Stormwater Management Plan (SWMP) Elements

The following sections describe how the City will address the stormwater management minimum control measures in accordance with Permit WPCC 3033/03. The City will implement the suite of BMPs described herein to achieve the overarching goal of each minimum control measure. The minimum control measures required under the SWMP include:

- Public Education and Outreach;
- Public Involvement and Participation;
- Illicit Discharge Detection and Elimination;
- Construction Site Stormwater Runoff Control;
- Post Construction Stormwater Management; and
- Pollution Prevention and Good Housekeeping.

The City of Dover Public Works Engineering Division is the lead in developing the SWMP and coordinating the administration and tracking of Permit requirements to achieve compliance. Since every City department has some responsibility with NPDES permit compliance, the Engineering Division coordinates with key staff in all departments. We also work and partner with government agencies, Phase I and Phase II permitees, develop agreements with consultant firms or contractors for specific tasks related to the Permit, and seek funding opportunities to assist in implementation of Permit requirements and compliance. Table 2 shows a matrix designed to give the reader a synopsis of measurable goals, implementation schedule and responsible department for each element over the next 5 years beginning 2016.

# Table 1. Matrix of Minimum Control Measures, implementation schedule and responsible division.

# Table 1. Public Education and Outreach - Measurable Goals, Implementation Schedule and Responsibility

	Implementation Schedule							Re	spor	nsibil	lity		
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet
1.1. Stormwater Quality Website													
A. Review and update topics for website to include pesticide, fertilizer, pet waste, IDDE, oil, household hazardous waste, floatables such as litter, yard waste, impacts of impervious surfaces									**				
<ul> <li>B. Update library of educational materials including brochures, fact sheets, videos,etc.</li> </ul>									**				
C. Post pertinent public notices and information regarding events such as stream clean-ups									**				
D. Update links to appropriate websites (DelDOT, DNREC Division of Watershed Stewardship, Delaware Livable Lawns, native plant sites)									**				
E. Report website usage in Annual Report									**				
1.2. Materials for Distribution													
A. Review existing public education materials to ensure relevancy to current issues									**				
B. Develop educational message for monthly bills to City of Dover residents on relevant stormwater topic									**				
C. Distribute flyer on "Stormwater Management in City of Dover" to Dover citizens via website, public library, City Hall									**				
D. Post Silver Lake/St. Jones River revitilization projects on website									**				
E. Distribute kid's stormwater quiz									**				
F. Distribute education materials to promote proper management of used oil and HHW at public events and on website									**				

# CITY OF DOVER STORMWATER MANAGEMENT PLAN

	Implementation Schedule							Re	spor	nsibil	ity		
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	<b>Code Enforcement</b>	Water/Wastewater	Water Treatment	Fleet
G. Develop door hanger for distribution when illicit discharges are discovered									**				
H. Develop pet waste placard for pet waste stations at parks									**				
I. Track # of impressions									**				
1.3. Alternative Information Sources													
A. Install 50 storm drain markers per year						*			**				
1.4. Public Workshops													
A. Make-a-Splash									**				
B. Becoming an Outdoors Woman workshop									**				
C. Delaware State Fair workshop - DNREC On Stage Theater									**				



Continuous program, renewed or revised as needed One-time activity to develop or implement a measurable goal

- \*\* Lead Department/Division
- \* Contributor

,	I	mple Sc	men hed	tatio ule	n	Responsibility								
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	<b>Grounds Maintenance</b>	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District
2.1. Public Reporting of Illicit Discharges and illegal dumping														
A. Install storm drain markers - encourage public reporting of illicit discharges at the community level						*			*					
B. Distribution of door hangers to serve as neighborhood watch for illegal dumping and discharges						*			**					
C Hotline number and email address for public reporting of illicit discharges														
and illegal dumping									**					
2.2. Public Participation Events														
A. Coordinate with Silver Lake Commission on stream clean-up									**					
B. Solicit volunteers for Silver Lake / St. Jones River clean-up events through flyers and website									**					
C. Delaware Livable Lawns - encourage City of Dover residents to participate									**					
D. Public survey on stormwater knowledge, concerns, suggestions									**					
2.3. Education of Pet Owners														
A. Pet waste bag dispensing stations in parks with message placard							*		**					
B. Monitor bag usage							*		**					
2.4. Public Review Processes														
A. Public review of Stormwater Management Plan									**					
B. Public meetings and comment period on stormwater utility									**					
C. Public input regarding erosion and sediment control on construction														**
projects														
2.5. Stormwater Management Committees														
A. Attend MS4 consortium quarterly meetings with other Phase I and Phase II NPDES permit holders									**					
B. Attend Silver Lake Commision quarterly meetings to ensure coordination among City Departments and City of Dover projects									**					

#### Table 1. Public Involvement and Participation - Measurable Goals, Implementation Schedule and Responsibility

	I	mple Sc	men hedu	tatioi ile	n	Responsibility											
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District			
2.6 Memorandum of Agreement																	
A. Develop MOA with DelDOT for shared program elements									**								

Continuous program, renewed or revised as needed

One-time activity to develop or implement a measurable goal

\*\* Lead Department/Division

\* Contributor

		mple Sc	men hedu	tatioi ule	n			R	espo	onsib	ility		
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	<b>Grounds Maintenance</b>	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet
3.1 Database and map													
A. Maintain and update storm sewer maps and include in annual report									**				
B. Document database and map viewer improvements									**				
3.2 Dry weather outfall screening													
A. Develop procedures to identify, correct & eliminate illicit discharges and connections, illegal dumping, and discharge of floatables									**	*			
B. Evaluate all outfalls targeting highest potential for illicit discharges									**				
C. Field screen 5% (33) of outfalls per year									**				
D. Source track illicit discharges and eliminate									**				
3.3 Catch Basins Cleaning and Maintenance													
A. Annual cleaning and maintenance of priority catch basins						**							
3.4 Ordinances													
A. Strengthen ordinance 2010-07, Chapter 98-164 – Prohibited discharges into system									*	**			
B. Continue to enforce ordinance 2014-19, Chapter 98 prohibiting grass clippings into the storm drain system										**			
3.5 Funding													
A. Adequately fund program to address illicit discharges and dumping									**				
3.6. Training													

# Table 1. Illicit Discharge Detection & Elimination - Measurable Goals, Implementation Schedule and Responsibility

# CITY OF DOVER STORMWATER MANAGEMENT PLAN

A. Develop training program for employees and contractors to include illegal discharges and improper disposal of wastes			*	*		**	*			
B. Develop semi-annual maintenance bulletins and distribute to 5 City facilities						**				
C. Report number City employees and Contractors trained in Annual Report										
3.7 Promote Public Reporting										
A. Distribute door hangers where illicit discharges occur						**				
B. Post Hotline number for reporting illicit discharges on website						**				
C. Track IDDE public complaints						**				
3.8 IDDE Reporting										
A. Report number of outfalls screened & number of non-stormwater			*			**				
discharges in annual report										
B. Report number of illegal dumps identified in annual Report			*			**				
C. Report linear footage of pipe video in Annual Report			*			**				
D. Report number of catch basins cleaned in Annual Report			*			**				
E. Document reportable spills in Annual Report			*	*	*	**	*	*	*	*



Continuous program, renewed or revised as needed One-time activity to develop or implement a measurable goal

\*\* Lead Department/Division

\* Contributor

	l	mple Sc	men hedu	tatio Ile	n	Responsibility									
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	<b>Grounds Maintenance</b>	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District	
4.1. Erosion and Sediment Control															
A. Follow Delaware Sediment and Stormwater Regulations									*					**	
B. KCD, as delegated agency, fulfills requirements for pre-construction and post- construction site runoff control	-								*					**	
C. The City of Dover assists KCD with erosion and sediment control program and enforcement									*					**	
4.2. Education/Outreach and Training for Construction Site Operators															
A. Appropriate KCD and City of Dover employees will be CCR and/or Blue Card Certified									**					**	
4.3. Memorandum of Agreement															
A. Continue to abide by the terms of the MOA with KCD on responsibilities of both parties for Construction Site stormwater management									*					**	
4.4. Reporting															
A. Track City-owned construction project E & S inspection reports									**					*	
B. Report # of inspections in annual report									**					*	

#### Table 1. Construction Site Stormwater Runoff Control - Measurable Goals, Implementation Schedule and Responsibility



Continuous program, renewed or revised as needed One-time activity to develop or implement a measurable goal \*\* Lead Department/Division

\* Contributor

	I	mple Sc	men hedu	tatio ule	n				Res	pons	sibili	ty		
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	<b>Grounds Maintenance</b>	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District
5.1. Structural BMPs														
A. Kent Conservation District, as delegated agency, fulfills Post-Construction									*					**
Stormwater Management requirements														
B. KCD reviews plans submissions for structural BMPs									*					**
C. KCD annually inspects City-owned BMPs									*					**
D. The City performs maintenance on City-owned facilities as needed						*	*		**					
5.2. Ordinance														
A. Continue to require compliance with Open Space ordinance									*	**				
5.3. Memorandum of Agreement														
A. Continue to abide by the terms of the MOA with KCD on responsibilities of both parties for Post-Construction Stormwater Management									*					**

# Table 1. Post-Construction Stormwater Management - Measurable Goals, Implementation Schedule and Responsibility



Continuous program, renewed or revised as needed One-time activity to develop or implement a measurable goal

- \*\* Lead Department/Division
- \* Contributor

Table 1.	Pollution	<b>Prevention and</b>	Good	Housekeepi	ing
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		mple Sc	men hedu	tatio Ile	n				Res	spons	sibilit	y		
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District
6.1 Storm Sewer System Maintenance														
A. Continue program to clean, maintain, and repair problem catch basins and piping						**			*					
B. Maintain and repair streets						**								
6.2 Pesticide Management														
A. Ensure compliance with local, state, and federal regulations							**		*					
B. Assess opportunities to implement alternative practices for non-herbicide methods of maintenance							**		*					
C. Report pesticide types and quantities in Annual Report							*		**					
6.3 Street Sweeping														
A. Perform weekly street sweeping City-wide from January 15 - October 15, weather permitting						**								
B. Collect sweeper waste quantity data						**			*					
C. Keep sweeper waste cordoned off and separated at maintenance facilities while awaiting disposal						**								
D. Conduct annual sweeper waste testing as necessary prior to disposal at DSWA									**					
6.4. Snow and Ice Program														
A. All salt stored under cover						**								
6.5. Vehicle Washing														

	Implementation Responsibility Schedule													
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District
A. Wash all vehicles at a dedicated wash bay connected to sanitary sewer						*	*	*	*	*	*	*	*	
B. Fleet vehicle maintenance kept on prescribed schedule													**	
C. Contain leaks/spills, clean as necessary, and record													**	
D. Maintain vehicle maintenance records													**	
E. Routine maintenance bay sweeping of oil dry material													**	
6.6 Vehicle Maintenance														
A. All vehicle maintenance occurs in dedicated location indoors													**	
B. Fleet vehicle maintenance kept on prescribed schedule													**	
C. Contain leaks/spills, clean as necessary, and record													**	
D. Maintain vehicle maintenance records													**	
E. Routine maintenance bay sweeping of oil dry material													**	
6.7. Spill Prevention and Response														
A. Develop spill SOP						**	**		*					
B. Follow City of Dover Sanitary Sewer Overflow protocol								**						
C. Evaluate maintenance facility spill prevention equipment needs									**					
6.8. Trash and Recyclables Collection														
A. Weekly trash and bi-monthly recyclables collection								**						
6.9. Leaf Collection and Recycling														
A. Annual leaf collection schedule October 15 - January 15						**								
B. Report quantities of leaf material recycled								*	**					
6.10. Inspections of Municipal Facilities														

	I	mple Sc	men hedu	tatio Ile	n	Responsibility								
Control Measures and Measurable Goals	2016	2017	2018	2019	2020	Streets	Grounds Maintenance	Sanitation	Engineering Division	Code Enforcement	Water/Wastewater	Water Treatment	Fleet	Kent Conservation District
A. Each maintenance facility implements approved facility-specific Stormwater						*			**					
B. Follow Industrial Permit dry and wet weather inspection and sampling protocol     C. Install, inspect, and maintain catch basin inserts at maintenance facilities									**					
E Appuel employee training						*			**				*	
6.11. New Construction and Land Disturbance														
A. Follow Delaware Sediment and Stormwater Regulations: KCD is the City of Dover's delegated agency - See Sections 4.0 and 5.0									*					**
6.12. Employee Training														
<ul> <li>A. Annual employee general training on Pollution Prevention and Good Housekeeping</li> </ul>						*		*	**	*	*	*	*	
B. Staff training for Blue Card and CCR Certification; maintain list of certifications									**					
C. Develop semi-annual maintenance bulletins on pollution prevention topics and distribute to 5 City facilities									**					
D. Certified Pesticide Applicators maintain accreditation through training							**							



Continuous program, renewed or revised as needed One-time activity to develop or implement a measurable goal \*\* Lead Department/Division

\* Contributor

# **1.0 PUBLIC EDUCATION and OUTREACH**

The primary purpose of this element is to develop a public education program to distribute education materials to City Employees, Residents, Industries/Commercial Businesses, and its contractors. There exist sub-groups within these categories: 1) City Employee group includes Grounds, Streets, Sanitation, and Water/Wastewater Divisions, Fleet, and Code Enforcement staff. Each of these has different responsibilities in meeting NPDES permit requirements; 2) A Residential group may include homeowners, renters, pet owners or community groups; 3) Industrial/Commercial groups may include landscapers, general/building contractors, automotive repair shops, etc.

Implementation of the SWMP will provide information on the pollutants associated with stormwater runoff, the impacts on water quality and ways the various groups can reduce pollutants in stormwater runoff. The messaging will educate the various groups on stormwater runoff, its impacts to water quality and potential solutions that can be implemented.

These messages may be distributed by a variety of means including; brochures and bill stuffers, a website and social media outlets, workshops and public events

# **BMP 1.1 – Stormwater Quality Website**

# **Objective:**

To utilize the internet as a venue to promote public awareness of stormwater impacts and to encourage behavior changes to mitigate those impacts.

# **Description:**

The City will continue to maintain the stormwater section of the website <a href="http://www.cityofdover.com/Stormwater-Program-210330/">www.cityofdover.com/Stormwater-Program-210330/</a> to educate the public on water quality issues. Through this BMP, the City will:

- A. Review and update topics for website. The website will contain information about:
- Pesticide
- Fertilizer
- Pet waste
- Illicit discharges
- Motor oil
- Household hazardous waste
- Floatables (litter, solid refuse)
- Yard waste
- Impacts of impervious surfaces
- **B.** Review the library of educational materials and annually update as necessary.

- **C.** Post public notices on stream clean-up, invasive species spraying events, and other pertinent topics on the Public Announcements section of the home page.
- **D.** Periodically review and update links to appropriate websites including, but not limited to:
- DNREC Sediment and Stormwater Program
- Kent Conservation District
- DNREC NPDES MS4 Program
- EPA MS4 Program

The website will also contain a Citizen Action Center page for reporting illicit discharges.

**E.** Report website usage in annual report.

#### **Responsible Party:**

Engineering Division

#### **Measurable Goals:**

- Number of website visits.
- Number of downloads of educational materials.
- Attendance at posted public events.

# **BMP 1.2 – Materials for Distribution**

#### **Objective:**

To provide residents and employees of the City of Dover, as well as contractors, business and industry, materials that enhance knowledge of environmental pollutants to promote behavior changes.

## **Description:**

- **A.** The City will review its existing public education materials to ensure relevancy to current stormwater issues.
- **B.** Develop educational messaging for monthly bills to City of Dover residents on relevant stormwater topic.
- C. Distribute flyer on "Stormwater Management in City of Dover" to Dover citizens at the library, City Hall, and via the website.
- **D.** Post Silver Lake / St. Jones River revitalization projects on website to inform public about projects that enhance water quality.
- E. Develop and distribute a kid's stormwater quiz to test their knowledge on stormwater
- **F.** Distribute education materials to promote proper management of used oil and Household Hazardous Waste (HHW) at public events and on post on website.

- **G.** Develop a door hanger to distribute in neighborhoods where illicit discharges are discovered through the IDDE screening program, City of Dover staff during routine operations, or citizen reports.
- H. Develop a pet waste tip card for pet waste stations in City parks.
- I. Track number of annual impressions made on the general public about stormwater quality from the following sources:
  - Website
  - # of brochures
  - Monthly bill messaging
  - Paycheck inserts
  - Stormwater survey
  - Kid's stormwater quiz
  - Public events
  - Pet waste bags
  - Door hangers

## **Responsible Party:**

#### Engineering Division

## Measurable Goals:

- Total number of informational handouts distributed from inserts, surveys, pet waste tip cards and bags, and door hangers.
- Number of public events/workshops and attendance.
- Number of website visits.
- Number of impressions.

# **BMP 1.3 – Alternative Information Sources**

## **Objective:**

To promote watershed awareness and behavior changes targeting specific pollutants using indirect sources of information.

## **Description:**

**A.** Install 50 storm drain markers per year. Each marker carries a water quality message.

## **Responsible Parties:**

Streets Division Engineering Division

# Measurable Goals:

- Number of storm drain markers installed.
- Number of watershed signs installed.

# **BMP 1.4 – Public Workshops**

## **Objective:**

To promote behavior change through hands-on annual workshops that focus on educating children and the general public on the importance of the watershed in which they live and ways to improve stormwater quality.

## **Description:**

- **A.** Participate in DNREC's annual Make-a-Splash program. Over 650 4<sup>th</sup> graders from 7 schools attend various hands-on watershed activities and demonstrations designed to ignite interest, increase knowledge, and encourage the next generation of Delaware's water stewards.
- **B.** Conduct a workshop for DNREC's "Becoming an Outdoors Woman" discussing habitat improvements for wildlife, native plants, fertilizer and pesticide reduction, and stormwater quality management.
- **C.** Conduct a workshop at the *DNREC On-Stage Theater* at the Delaware State Fair in coordination with the Department of Natural Resources and Environmental Control.

# **Responsible Party:**

**Engineering Department** 

## Measurable Goals:

• Number of workshops held per year and attendance.

# 2.0 PUBLIC INVOLVEMENT AND PARTICIPATION

The Public Involvement and Participation minimum measure consists of BMPs that focus on creating opportunities for the public to get directly involved in implementation of the City of Dover Stormwater Management Program. This minimum measure also creates opportunities for the public to get involved in activities that directly benefit the environment and lead to improvements in water quality.

# **BMP 2.1 – Public Reporting of Illicit Discharges and Illegal Dumping**

## **Objective:**

Encourage City residents to report illegal dumping and illicit discharges into the MS4 **Description:** 

**A.** Install 50 storm drain markers annually. Each marker carries a water quality message to discourage dumping into the storm drain.

- **B.** A door hanger will be distributed in neighborhoods where illegal dumping and illicit discharges are found. The door hanger lists pollutants that are illegal to dump into the storm sewer system as well as guidelines for pollution prevention. The idea behind the door hanger is not only to alert the violator, but to serve as a "neighborhood watch" for residents to call the hotline number listed if they observe any illegal discharging or dumping.
- **C.** Post a hotline number and Report-a-Problem email address on the website for reporting of illicit discharges and illegal dumping.

# **Responsible Party:**

Engineering Division Streets Division

# Measurable Goals:

- Number of storm drain markers installed.
- Number of phone calls to the hotline received.
- Number of emails received.

# **BMP 2.2 – Public Participation Events**

#### **Objective:**

To provide the public with the opportunity to get involved with community clean-up events within the City limits, Silver Lake and St. Jones River.

## **Description:**

- **A.** Coordinate stream clean up events with the Silver Lake Commission to help solicit volunteers.
- **B.** Solicit volunteers to participate in City beautification events, Silver Lake and St. Jones River clean-up projects using website and flyers. Track participation through sign-in sheets.
- **C.** Partner with the Delaware Department of Transportation and the Delaware Livable Lawns program. Promote the program through the website and brochures at City facilities to encourage City residents to participate with the goal of proper fertilizer application and reduction to work towards TMDL reductions of nitrogen and phosphorus.
- **D.** Conduct a public survey on City resident's knowledge, concerns, and suggestions they have regarding stormwater quality and flooding issues.

## **Responsible Party:**

## **Engineering Department**

## Measurable Goals:

- Number of community events sponsored by the City.
- Number of event participants.
- Number of City residences participating in the Delaware Livable Lawns program.
- Number of surveys distributed; number of surveys completed.

# **BMP 2.3 – Education of Pet Owners**

## **Objective:**

As part of a TMDL reduction strategy for bacteria, the City of Dover will provide education to the public on the detrimental effects of bacteria on the St. Jones River watershed. Pet waste dispensing stations and educational placard will be installed in three (3) City parks and usage will be monitored.

# **Description:**

- **A.** Install pet waste stations in City parks. A tip card will be developed and provided at the stations.
- **B.** Bags will be replaced as necessary and usage will monitored and recorded in the annual report.

# **Responsible Party:**

**Engineering Division** 

**Grounds Division** 

## Measurable Goals:

- Adherence to schedule to implement by 2017.
- Number of bags used by pet owners.

# **BMP 2.4 – Public Review Processes**

## **Objective:**

To provide opportunities for public review and comment on the NPDES Phase II Stormwater Pollution Prevention & Management Program (SWPP&MP) and stormwater utility proposal and incorporate their feedback into the Final SWPP&MP.

## **Description:**

- A. Public Works will provide an opportunity for City residents to review the SWPP&MP to raise awareness and solicit feedback. Public Works will post the SWPP&MP on the City's website and request public input via email to a designated account. The public will be given a comment period of 30 days from the Public Notice and concurrent posting of the SWPP&MP on the website. Public Works will coordinate a response to and incorporation of comments into the Final SWPP&MP as appropriate.
- **B.** The City will evaluate the feasibility of creating a stormwater utility. The current program structure, level of service, funding levels, and MS4 compliance with the NPDES permit will be components of the study.
- **C.** KCD receives input from the public regarding erosion and sedimentation control and drainage concerns as KCD is the delegated agency for Kent County to handle these issues. Calls are received directly from the public as well as through referrals from other government agencies and local organizations. To assist the public with reporting, the City of Dover will provide a link to the KCD website.

# **Responsible Party:**

Engineering Division

## Measurable Goals:

- Adherence to schedule.
- Number of comments received and addressed.
- Number of survey forms received.
- Evaluation of comments.
- Provide a link to the KCD website.

# **BMP 2.5 – Stormwater Management Committees**

## **Objective:**

Stormwater Management Committees are designed to provide general oversight in the implementation of the SWPP&MP providing assistance to NPDES Phase I and Phase II permit holders. The City of Dover participates in two meetings on a quarterly basis: 1) The MS4 Consortium Committee; 2) The Silver Lake Commission.

#### **Description:**

- **A.** The MS4 Consortium Committee is made of members from state, municipal, and County government jurisdictions and convenes on a quarterly basis. The committee will seek to expand its membership as new Phase II municipalities receive NPDES permits in the summer of 2016.
- **B.** The Silver Lake Commission serves as an advisory board to the City of Dover. Public Works staff will attend quarterly meetings to ensure coordination among City Departments and City of Dover projects where public input is considered.

## **Responsible Party:**

Engineering Division

## Measurable Goals:

- Adherence to schedule.
- Record attendance and take minutes at each meeting.
- Maintain records of agenda, attendance and minutes for each meeting.
- Report the number of meetings and subjects presented in the annual report.

# **BMP 2.6 – Memorandum of Agreement**

## **Objective:**

To partner with the Delaware Department of Transportation to implement the Phase II permit.

## **Description:**

**A.** Both the City of Dover and the Delaware Department of Transportation have a NPDES Phase II permit. The permit encourages partnering with other public or private entities to implement the SMPP&MP to avoid duplicating program elements. The City and DelDOT, therefore, will

agree, via a Memorandum of Agreement, to meet regularly and partner on projects and programs that are mutually beneficially.

# **Responsible Party:**

Engineering Division

Measurable Goals:

- Executed Memorandum of Agreement per schedule.
- Program Elements and project partnerships described in annual report.

# **3.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE)**

The goal of the IDDE Program is to detect and eliminate illicit discharges into the MS4, which are discharges that are not composed entirely of storm water with the exception of allowable discharges described in Part II.A.3.g. of the Permit. The IDDE Program requires that the permittee develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4, including appropriate policies, procedures, and enforcement. The permittee must:

- 1. Maintain a storm sewer map that shows the location of all outfalls and drainage outlets and receiving waters.
- 2. Prohibit non-stormwater discharges through develop and/or enforcement of an ordinance and implement appropriate enforcement procedures and actions.
- 3. Adequately fund the IDDE program.
- 4. Develop and outline standard operating procedures to be followed to locate, source track, and eliminate illicit discharges.
- 5. Inform employees, contractors and the public about the problems associated with illegal discharges.
- 6. Provide education to the general public.
- 7. Limit discharges of floatables.
- 8. Maintain list of dischargers to the MS4.

Standard step-wise process of the IDDE Program:

Develop Standard Operating Procedure Targeted Approach for selecting outfalls									
Screen Outfalls	Utilize Camera-on-Stick	$\implies$	Water Quality Testing	$\implies$	Source				
Track Illicit Discharge	Elimination								

# CITY OF DOVER STORMWATER MANAGEMENT PLAN



# BMP 3.1 – Database and Map

## **Objective:**

To maintain a GIS-based map depicting all storm sewer system components, including outfalls, and the names and location of all waters of the United States that receive discharges from those outfalls.

## **Description:**

- **A.** The City of Dover maintains a GIS map that spatially depicts the storm sewer system that includes inlets, manholes, outfalls, junction boxes, and pipes. The map assists the City of Dover and its consultants in tracing and locating sources of illicit discharges into the system. Update maps as new data becomes available, such as storm system upgrades and new developments.
- **B.** Currently, the GIS mapping only shows the structure location. No data, such as type of inlet or condition assessment exists on the structures. At some point, if the budget allows, the City may undertake a storm sewer system-wide inventory and inspection program. This, along with database improvements resulting from new technology, will be documented in the annual report.

## **Responsible Parties:**

Engineering Division

## Measurable Goals:

• Provide annual updates to map.

# **BMP 3.2 – Dry Weather Outfall Screening**

## **Objective:**

The primary objective of dry weather screening is to detect and eliminate illicit connections and illegal discharges to the MS4.

## **Description:**

- A. The City of Dover has hired professional consultant services to conduct this element in its entirety. The consultant will develop Standard Operating Procedures (SOPs) for the City of Dover's IDDE Program, including source tracking, to ensure compliance with federal and state regulations. The IDDE process includes targeted screening, water quality sampling, tracking the illicit discharge to its source, documenting the event and eliminating the pollutant source through education, administrative means, Notice of Violation, or fines.
- B. The consultant will develop a desktop targeting methodology specific to the City of Dover for identifying the City's outfalls that have the highest potential for illicit discharge. This methodology generally follows the Center for Watershed Protection's 2004 guidance manual, *Illicit Discharge Detection and Elimination, Chapter 5: Desktop Assessment of Illicit Discharge Potential*. Using the City's stormwater system GIS layer, GIS software is used to target outfalls for field screening based on factors such as:
  - Known past illicit discharges
  - History of dry weather flow and/or detected ammonia or detergents
  - Proximity to structures with environmental or pipe work orders
  - Structures found during inspections to have connections from unknown sources
  - Proximity to aging or abandoned sanitary sewer systems
  - Communities with no sanitary sewer systems
  - Proximity to potential discharge sources (e.g. industrial or commercial facilities)
  - Proximity of outfalls to streams
  - Proximity to previous known MS4 deficiencies
  - Age of MS4 (pre-1962)
- **C.** In a memo dated June 22, 2011, DNREC permitted the City to ".....to develop a procedure and begin inspection of 5% of the outlets (33 outlets) each year....." As stated in 3.2.A., the consultant will inspect 5% (33 outfalls) per year.
- **D.** In the event a potential illicit discharge is found, the consultant will conduct field sampling of ammonia, detergents, turbidity and pH and collect a sample for analysis by a certified laboratory. If the sample proves to be illicit, the consultant will track the pollutant to its source and work with the City to effect its elimination.

## **Responsible Parties:**

Engineering Division Code Enforcement

## **Measurable Goals:**

• Develop an SOP for Illicit Discharge Detection & Elimination.

- Develop a targeted outfall screening process that identifies the outfalls with the highest potential of illicit discharge.
- Take appropriate action to resolve illicit discharges.

# **BMP 3.3 – Catch Basin Cleaning and Maintenance**

# **Objective:**

Implement a program to clean and maintain priority catch basins.

## **Description:**

**A.** The Streets Division conducts routine inspections of City-owned catch basins. A vactor truck is used to vacuum sediment and debris. A work order is generated for repair work and all work is documented and reported in the annual report.

# **Responsible Parties:**

Streets Division

## **Measurable Goals:**

Maintain a database and report the number of catch basins cleaned and maintained in the annual report.

# **BMP 3.4 – Ordinances**

## **Objective:**

Enforce existing ordinances on prohibited discharges and grass clippings.

## **Description:**

- **A.** Ordinance 2010-07, Chapter 98-164 prohibits discharges into the storm sewer system and protects the structural integrity of the components. The City of Dover will review this ordinance and add language that clearly indicates that the intention is the protection of water quality. Violations will be tracked and recorded in the annual report.
- **B.** Ordinance 2014-19, Chapter 98 prohibits the discharge of grass clippings into the street, sidewalk, storm drain, or water course more than incidental amounts of grass. Violations will be tracked and recorded in the annual report.

## **Responsible Parties:**

Code Enforcement

## Measurable Goals:

- Enforce existing ordinances on prohibited discharges into the storm sewer system and grass clipping discharge.
- Review existing ordinance 2010, Chapter 98-164 and revise as necessary to ensure it is comprehensive enough to protect the water quality of receiving waters.

• Track and record violations in the annual report.

# BMP 3.5 – Funding

# **Objective:**

Provide adequate funding to support the requirements of the NPDES permit programs.

## **Description:**

A. The current NPDES annual operating budget is \$10,000. Other general fund costs include salaries and equipment for staff that provides program support including street sweeping, catch basin maintenance and repair, leaf collection, GIS and database management, fleet maintenance, snow and ice program, construction management and inspections, and code enforcement. Budget needs will be assessed annually and presented to Council.

## **Responsible Parties:**

Engineering Division

## Measurable Goals:

• Annually assess budgetary needs and allocate resources as necessary to meet permit requirements.

# **BMP 3.6 – Training**

## **Objective:**

Develop an employee training program for employees on how to incorporate pollution prevention/good housekeeping techniques into municipal operations such as park and open space maintenance, fleet vehicles, maintenance facilities, new construction and land disturbances, stormwater system maintenance, vehicle washing, and salt management.

## **Description:**

- **A.** A training program will be developed for all employees that have responsibilities pertaining to the permit. Each employee will have at least annual training. Various methods may be used including webinars, online education program modules, PowerPoint presentations, paycheck inserts, maintenance bulletins, etc.
- **B.** Maintenance bulletin posters will be developed on various stormwater and pollution prevention subjects to be distributed and posted at 5 City facilities on a semi-annual basis. Employees will be required to document their participation in this training by signing a form.
- **C.** All training will be reported in the annual report that includes the type of training, date, and number of employees.

## **Responsible Parties:**

Streets

Grounds Maintenance Sanitation Engineering Division Code Enforcement Water/Wastewater Fleet

Measurable Goals:

• City staff receives annual trainings as outlined above.

# **BMP 3.7 – Promote Public Reporting**

# **Objective:**

Promote public involvement by providing educational awareness and contact information for the reporting of illicit discharges.

# **Description:**

- A. A door hanger outreach program will be developed for the reporting of illicit discharges or illegal dumping activity. The front side of the door hanger lists the date and type of pollutant found and water body affected with a contact email and phone number to code enforcement. On the back, the door hanger describes stormwater pollution and guidelines to reduce pollution at the home or workplace.
- **B.** The City of Dover will maintain its homepage that has a "Contact Us" link to report water quality problems and other complaints via email.
- **C.** All public complaints will be addressed and recorded in the annual report.

## **Responsible Parties:**

**Engineering Division** 

## Measurable Goals:

- Report number of door hangers distributed.
- Report number of website hits.
- Report number of public complaints received.

# **BMP 3.8 – IDDE Reporting**

## **Objective:**

Report all illicit discharge activity in the annual report.

# **Description:**

- **A.** The permit requires the City to field screen 33 outfalls per year. An outfall screening form will be developed and used to document the annual screening effort that includes potential illicit discharges (PIDs), actual illicit discharges, source tracking, and resolution.
- **B.** Any illegal dumping activity will be reported and, where possible, fines assessed.
- **C.** The City of Dover owns a video van and is used as part of the catch basin cleaning and illicit discharge programs as well as responding to citizen complaints. Maintenance staff will be trained to look for illicit connections and report to the NPDES Program staff. The number of linear feet is recorded and will be included in the annual report.
- **D.** Catch basins are cleaned as required and will be reported in the annual report.
- **E.** Spills of reportable quantity will be reported to DNREC. Spills of lesser amounts will be controlled with in-house staff and reported in the annual report.

# **Responsible Parties:**

All Divisions

# Measurable Goals:

• Develop a database and document all potential illicit discharges and actions taken.

# 4.0 CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

The Department of Natural Resources and Environmental Control has delegated the authority to administer the Delaware Sediment and Stormwater Regulations to the Kent Conservation District (KCD). The KCD, under a Memorandum of Agreement, agreed to act on behalf of the City of Dover to fulfill the requirements of the sediment and stormwater regulations and the MS4 permit.

# **BMP 4.1 – Erosion and Sediment Control**

## **Objective:**

Reduce the discharge of pollutants from construction sites.

## **Description:**

- A. The City of Dover is required to achieve compliance with the State Sediment and Stormwater Regulations on individual sites with City limits. The State Law (7 Del. C., ch. 40) meets or exceeds the requirements of the NPDES MS4 permit. Compliance is accomplished via a Memorandum of Agreement with the Kent Conservation District (KCD) (see section 4.1.B.).
- **B.** The City of Dover will continue to use the services of the KCD as the Delegated Agency for stormwater management pre-construction plan review, construction inspection, and post-construction inspection in accordance with the State of Delaware's Sediment and Stormwater Program.

**C.** The City of Dover will assist the KCD in achieving compliance with the State Sediment and Stormwater Regulations by coordinating issuance of building permits, certificates of occupancy, and enforcement actions.

# **Responsible Parties:**

Engineering Division Kent Conservation District

# Measurable Goals:

- Maintain a list of construction projects
- Track CCR inspection compliance
- Track enforcement actions

# **BMP 4.2 – Education/Outreach and Training for Construction Site Operators**

## **Objective:**

Provide appropriate education and training for construction site operators.

# **Description:**

A. DNREC provides a four-hour Certification for Responsible Personnel Course for contractors. KCD requires that the contractors for all construction sites have an individual onsite who has attended this course (as required by the Delaware Sediment and Stormwater Law and Regulations). DNREC also offers a Certified Construction Reviewer course (3-day course). KCD requires that contractors have an individual onsite who has attended this course on all commercial projects and all residential projects over 50 acres. The City of Dover also has Blue Card and CCR trained staff. All appropriate personnel will maintain their certification by attending the one-day recertification class.

# **Responsible Parties:**

Engineering Division Kent Conservation District

# Measurable Goals:

• KCD and City of Dover staff will maintain Blue Card or CCR certification.

# **BMP 4.3 – Memorandum of Agreement**

## **Objective:**

Abide by the terms of the MOA with the Kent Conservation District on the responsibilities of both parties for Construction Site Stormwater Runoff Control.

# **Description:**

A. The City's compliance with the MS4 permit requirements are dependent upon ensuring that construction and post-construction practices are conducted in accordance with requirements contained with MS4 conditions with City limits. Therefore, the City of Dover and the KCD have entered into a Memorandum of Agreement, dated November 14, 2011, which defines the roles of both parties. Generally, the KCD fulfills the State of Delaware Sediment and Stormwater Regulations and satisfies the MS4 permit requirements. The City has the responsibility to assist KCD by coordinating issuance of building permits and certificates of occupancy. The KCD is responsible for enforcement actions relating to construction and post-construction stormwater management.

# **Responsible Parties**

Engineering Division Kent Conservation District

## Measurable Goals:

- Ensure City projects have appropriate construction site inspectors per the Sediment and Stormwater Regulations.
- Ensure required pre-construction plan reviews and construction inspections are conducted.

# **BMP 4.4 – Reporting**

## **Objective:**

Track and report construction project activity for each project including inspections and compliance issues in annual report.

## **Description:**

- **A.** The City of Dover will coordinate with the KCD and internally track erosion and sediment control inspections.
- **B.** Report the number of inspections and any compliance issues in the annual report.

## **Responsible Parties**

Engineering Division Kent Conservation District

## Measurable Goals:

• Documentation of all construction activity in annual report.

# **5.0 POST-CONSTRUCTION STORMWATER MANAGEMENT**

Part of KCD's responsibilities as delegated agency under Delaware's Sediment and Stormwater Program include Post-Construction Stormwater Management in New Development/Redevelopment. KCD

reviews plan submissions for structural best management practices (BMPs) incorporated into the site plan's erosion and sedimentation design and stormwater management design. Evaluation of the design considers site specific characteristics. Water quality is the first priority and typically drives the design.

Certain non-structural BMPs were included in the City of Dover Zoning Ordinance prior to the permit period. Article 5, Section 10.2 *Open Space* requires the dedication of open space to provide buffer spaces between developing areas, to preserve existing natural and historic features and to establish a network of open spaces within the built environment to provide a balance between developed and undeveloped lands, wildlife habitat conservation, the preservation of scenic view corridors, and to provide residents opportunities to engage in passive recreation activities. Article 5, Section 11.13 Water Bodies and Wetlands requires buffer zones around lakes, wetlands and streams.

Requirements of the NPDES Phase II, as they apply to the City of Dover, were provided for incorporation into the 2008 Comprehensive Plan for the City of Dover.

The requirements of this minimum control measure are met in part through the services provided by KCD, primarily through requiring structural BMPs in stormwater management design and through maintenance inspections. The City of Dover has also provided for some non-structural BMPs through the existing Zoning Ordinance. The City remains responsible for stormwater facility maintenance and associated costs.

# **BMP 5.1 – Structural BMPs**

# **Objective:**

Conduct post-construction BMP inspections and maintenance as necessary to ensure design functionality.

## **Description:**

- **A.** Post-construction management and maintenance inspection of stormwater management facilities will be conducted by KCD.
- **B.** KCD will review all City of Dover construction plans to ensure the proper BMP is selected giving water quality a priority.
- **C.** KCD will inspect all City-owned BMPs annually.
- D. KCD will provide the City with the BMP inspection forms with maintenance recommendations. The City is responsible for the cost of maintenance and will develop contracts to maintain or repair the BMP as funding permits.

## **Responsible Parties**

Engineering Division Kent Conservation District

## Measurable Goals:

- Track post-construction inspections and ensure completion with proper documentation.
- Develop maintenance contracts to maintain/repair BMPs.

# BMP 5.2 – Ordinance

#### **Objective:**

To comply with Open Space Ordinance.

#### **Description:**

A. Article 5, Section 10.2 Open Space requires the dedication of open space to provide buffer spaces between developing areas, to preserve existing natural and historic features and to establish a network of open spaces within the built environment to provide a balance between developed and undeveloped lands, wildlife habitat conservation, the preservation of scenic view corridors, and to provide residents opportunities to engage in passive recreation activities.

## **Responsible Parties**

Engineering Division Code Enforcement

#### **Measurable Goals:**

• Report on any non-compliance of Open Space Ordinance.

# **BMP 5.3 – Memorandum of Agreement**

#### **Objective:**

Abide by the terms of the MOA with the Kent Conservation District on the responsibilities of both parties for Post-Construction Stormwater Management.

#### **Description:**

A. See 4.3.A.

#### **Responsible Parties**

Engineering Division Kent Conservation District

#### **Measurable Goals:**

• Documentation of all post-construction activity in annual report.

# 6.0 POLLUTION PREVENTION AND GOOD HOUSEKEEPING

The Pollution Prevention and Good Housekeeping Program Element consists of BMPs that focus on the reduction of pollutants in stormwater runoff that originate from City of Dover municipal operations and maintenance activities. The operations and maintenance activities include transportation system maintenance, vehicle and equipment washing and maintenance, materials handling and storage, construction activity, and employee training. BMPs selected for this minimum measure are intended to

be proactive in nature and focus on prevention of circumstances that have the potential to contribute to polluted runoff.

# **BMP 6.1 – Storm Sewer System Maintenance**

# **Objective:**

Maintain the storm sewer system to help prevent roadway flooding and minimize water quality impacts from litter, floatables, and pollutants associated with stormwater runoff.

# **Description:**

- A. Inspect problem inlets and catch basins and create work orders to clean and repair as necessary. Tops of catch basins and inlets will be cleaned and piping may be jetted with a flusher truck. All work activity will be reported including number of catch basins/inlets cleaned and/or repaired and the linear footage of pipes flushed.
- **B.** Degraded roadways have the potential to contribute to polluted runoff from asphalt and asphalt related materials into the storm sewer system. To minimize the potential impacts, the City maintains an inventory of roadway installations and inspects when the useful lifespan is reached. The City also keeps a log of potholes and damaged roads and repairs as needed based on a severity rating. Roadway repairs following utility work get a priority rating. Erosion and sediment controls are used during mill and overlay projects.

# **Responsible Parties**

Engineering Division Streets Division

## Measurable Goals:

- Number of catch basins cleaned, repaired, or flushed.
- Report roadway repairs including potholes patched and mill and overlay projects.

# **BMP 6.2 – Pesticide, Herbicide, Fertilizer Management**

## **Objective:**

To minimize the discharge of pollutants from pesticides, herbicides and fertilizers through proper application and management of these chemicals. All storage, handing, application and disposal of fertilizers follow best practices per the certification guidelines and manufacturer recommendations. Pesticides applied are done according to label recommendations that are on the product and filed with EPA at the time of product registration. Fertilizers are applied sparingly on newly established beds.

## **Description:**

**A.** Ensure compliance with local, state, and federal regulations associated with herbicide application, including licensing regulations and requirements. Grounds Division staff selectively

applies herbicides to control undesirable plant species and invasive weed species listed on the Delaware State Department of Agriculture's Noxious Weed List.

- **B.** The City will look for opportunities to reduce the use of PHFs using alternative practices such as converting low use park areas to meadows.
- **C.** Record keeping and pesticide usage Contractors and City staff applicators are required to generate records of spraying activities. The NPDES Program will track and report herbicide quantities to establish baseline herbicide usage. By tracking herbicide quantities we will be able to identify the cause of spikes or declines in usage and use the data to assess pesticide reduction programs we have implemented.

# **Responsible Parties**

Engineering Division Grounds Division

# Measurable Goals:

- City of Dover applicators will either have pesticide applicator certification through the Department of Agriculture or work under a certified applicator.
- Report the areas where alternative practices have reduced the use of pesticides, fertilizers, and herbicides (PHFs).
- Annual usage of PHFs on City-owned lands.

# BMP 6.3 – Street Sweeping

# **Objective:**

To implement a street sweeping program that removes sediment, large debris from curb gutters and other pollutants, from City-owned roadways, which are a potential source of pollution impacting local waterbodies.

# **Description:**

- **A.** Conduct weekly street sweeping City-wide. All City roads will be swept at least once per month during the months of January 15 October 15, weather permitting.
- **B.** Sweeper waste quantities are collected and reported in annual report.
- **C.** Sweeper waste is kept separated and cordoned off at maintenance facilities while awaiting disposal.
- D. Before sweeper waste is hauled and disposed at the DSWA, test samples will be collected and sent to a certified laboratory. The results will be sent to the DSWA for their review to determine if it is non-hazardous and can be disposed of in the landfill. The DSWA will issue the City a letter that is valid for one year to be carried by the City hauler and presented to the landfill operator prior to disposal.

# **Responsible Parties**

Engineering Division Streets Division

## Measurable Goals:

- Weekly street sweeping.
- Annual miles swept.
- Annual volume of debris removed.
- Annual sweeper waste testing.

# BMP 6.4 – Snow and Ice Program

## **Objective:**

Operate and maintain City of Dover roadways and maintenance facilities incorporating best management practices to reduce stormwater pollution resulting from winter roadway maintenance practices.

#### **Description:**

- A. Proper salt management requires salt be stored under cover. In compliance with the General Permit Program, the City of Dover's Stormwater Management Plan requires semi-annual Comprehensive Site Evaluation of each facility. The evaluation form includes inspection of the salt storage conditions.
- **B.** Following a storm event, facilities that store salt will be swept within 48-hours after the end of the event.

## **Responsible Parties**

Engineering Division Streets Division

## **Measurable Goals:**

- Quantity of salt applied annually.
- Compliance with the SWMP and General Permit requirements for salt storage.

# **BMP 6.5 – Vehicle Washing**

#### **Objective:**

Continue to use the City Warehouse wash bay for all vehicle washing that prevents untreated vehicle wash water from entering the MS4.

## **Description:**

**A.** The City Warehouse maintenance facility has a vehicle wash bay connected to sanitary sewer. All vehicles are washed at this location.

# **Responsible Parties**

All Divisions

# **Measurable Goals:**

• All vehicle washing occurs at the City Warehouse wash bay.

# **BMP 6.6 – Vehicle Maintenance**

# **Objective:**

Continue a preventative maintenance program on all vehicles and equipment to reduce the discharges of pollutants to surface waters.

## **Description:**

- **A.** To eliminate the possibility of spills and leaks from vehicle maintenance, all maintenance activities will occur under roof in dedicated locations.
- **B.** The City will follow its current preventative maintenance schedule.
- **C.** Should any vehicle leaks and/or spills occur that are exposed to stormwater, the leak/spill will be cleaned and recorded.
- **D.** Maintenance will be tracked monthly and reported in the annual report.
- **E.** Any spills that require the use of sta-dri will be swept up daily to avoid tracking outdoors.

# **Responsible Parties**

Fleet Division

## Measurable Goals:

- Conduct routine preventative maintenance according to prescribe schedule while underroof.
- Maintain vehicle maintenance records and document fluid leak repair activities.

# **BMP 6.7 – Spill Prevention and Response**

## **Objective:**

Prevent pollutants from being discharged to downstream receiving waters resulting from spills on Cityowned streets and maintenance facilities. Establish a set of policies and procedures to provide instruction and guidance in case of accidental material discharge or spill.

# **Description:**

- **A.** Maintain and/or develop a general emergency response/spill response plan that describes regulations, standard policies, procedures, worker safety, responsible parties, incident reporting and record keeping regarding the release of hazardous materials/waste materials and sanitary sewer overflows.
- **B.** The City of Dover has a process in place to manage sanitary sewer overflows including an action item flow chart, Sanitary Release Record form, and an agreement with an on-call consulting firm to respond to incidents.

**C.** The City of Dover has two maintenance facilities with NPDES General Permits. An assessment will be made to determine what spill equipment is necessary to minimize the discharge of pollutants caused by spills.

## **Responsible Parties**

Engineering Division Streets Division Grounds Division Sanitation Division

# Measurable Goals

- Develop spill response procedures for hazardous materials.
- Report any spills to the appropriate authorities as required and report in annual report.
- Ensure that City-owned facilities are equipped with appropriate spill prevention and cleanup equipment.

# **BMP 6.8 – Trash and Recyclables Collection**

## **Objective:**

Continue weekly trash and recyclables collection within City limits.

## **Description:**

**A.** The City of Dover conducts weekly trash and recyclable collection on a prescribed schedule. The schedule is posted on the website along with trash collection guidelines.

## **Responsible Parties**

Sanitation Division

## Measurable Goals

- Weekly trash and recyclable collection.
- Update website with special notices or changes in schedule.

# **BMP 6.9 – Leaf Collection and Recycling**

## **Objective:**

Collect leaves on an annual basis and windrowed for compost recycling in the spring.

## **Description:**

- A. Leaves are collected on a prescribed schedule from mid-October to mid-January. Details are posted on the website. Leaves are then hauled to Schutte Park where they are placed in windrows and turned periodically to form compost. In the spring, this recycled product is offered free to residents.
- **B.** This program is tracked via leaf collection quantities recorded in the annual report.

## **Responsible Parties**

Streets Division

## Measurable Goals

- Adherence to leaf collection schedule.
- Track leaf quantities in annual report.

# **BMP 6.10 – Inspections of Maintenance Facilities**

## **Objective:**

Meet the requirements of the NPDES General Permit by conducting inspections and annual training at City-owned maintenance facilities.

# **Description:**

- **A.** The City of Dover has two maintenance facilities that have NPDES coverage under the General Permit. Each facility has a site-specific Stormwater Pollution Prevention Plan (SWPPP). Department of Public Works staff manages permit compliance.
- **B.** The SWPPP requires quarterly wet and dry routine inspections, semi-annul comprehensive inspections, and semi-annual wet weather sampling. All inspections and sampling are conducted with in-house staff. Inspection action items are sent to the appropriate personnel for corrective action. Follow-up inspections are performed and results recorded. Any benchmark exceedances of a wet weather event are documented and corrective actions implemented.
- **C.** The City of Dover will install catch basin inserts, which capture oil/grease and sediment, at its two maintenance facilities. The inserts will be inspected quarterly and maintained as necessary.
- **D.** The SWPPP will be kept current and amended if it proves to be ineffective in eliminating or significantly minimizing pollutants.
- **E.** Facility employees that work in areas where Industrial Materials are used or stored shall be appropriately trained to meet the requirements of the SWPPP. Employee training shall be conducted and documented on an annual basis and will address relevant topics.

## **Responsible Parties**

Streets Division Grounds Division Engineering Division Fleet

## Measurable Goals

- Maintain permit compliance.
- Complete required inspections and sampling.
- Purchase and install catch basin inserts.
- Annual employee training.

# **BMP 6.11 – New Construction and Land Disturbance**

# **Objective:**

Reduce the discharge of pollutants from construction sites.

# Description:

**A.** Follow Delaware Sediment and Stormwater Regulations; KCD is the City of Dover's delegated agency – See Sections 4.0 and 5.0.

# **Responsible Parties**

Engineering Division Kent Conservation District

# **Measurable Goals**

• See Sections 4.0 and 5.0.

# **BMP 6.12 – Employee Training**

# **Objective:**

To reduce stormwater pollution from City operations by educating employees on good housekeeping practices and potential stormwater impacts.

# **Description:**

- **A.** Employees involved with one or more program elements will receive annual training. Examples include: Illicit Discharge Detection and Elimination, pollution prevention, spill clean-up, record keeping, municipal facility inspections, etc.
- **B.** City employees whose job requires them to conduct erosion and sediment control inspections will have or obtain either the Blue Card or Certified Construction Reviewer certification. The employee will maintain their certification by taking the DNREC CCR Recertification Course prior to certification expiration.
- **C.** Maintenance bulletin posters will be developed on a semi-annual basis and distributed to 5 City facilities. A sign-in sheet will track employees trained. Topics will include general NPDES and watershed information, pollution prevention, snow and ice program, employee roles, etc.
- **D.** City employees responsible for fertilizer/pesticide application receive annual training consistent with Department of Agriculture certification requirements.

## **Responsible Parties**

All Divisions

# Measurable Goals

• City staff receives annual training.

# 7.0 REPORTING

The Stormwater Management Plan will be periodically reviewed to ensure the goals of the permit are met. The SWMP will be modified as necessary if changes are required and submitted to DNREC for review.

An annual report will be prepared the documents the preceding calendar year accomplishments and status of implementing the minimum control measures.