



APPROVAL OF NPDES MS4 INDIVIDUAL PERMIT (IP) COVERAGE

UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) INDIVIDUAL PERMIT (IP) FOR STORMWATER DISCHARGES FROM SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)

NPDES PERMIT NO: PA0063665

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Sections 1251 *et seq.* ("the Act") and Pennsylvania's Clean Streams Law, *as amended*, 35 P.S. Section 691.1 *et seq.*, the Pennsylvania Department of Environmental Protection (DEP) hereby approves coverage for an NPDES MS4 Individual Permit pursuant to the application submitted by:

APPLICANT(S) (NAME AND ADDRESS):

WATERSHED(S):

Allentown City
Department of Public Works
641 South 10th Street, 3rd Floor
Allentown, PA 18103-4775

2-C

to discharge stormwater to surface waters of the Commonwealth.

This approval to discharge is made subject to DEP's enclosed Authorization to Discharge Under the NPDES Individual Permit for Discharges of Stormwater from Small MS4s. **This Authorization is granted** based, in part, on information provided by the permittee in the IP Application. **The information provided by the person seeking the authorization, including all appendices, attachments, plans and supporting documentation, is incorporated by reference as a part of this Approval of NPDES MS4 IP Coverage and is enforceable as a condition of the authorization.** If there is a conflict between the permit and the IP Application, **including any appendices, attachments, plans and other supporting documentation, the more environmentally stringent provisions apply.**

THIS PERMIT SHALL BECOME EFFECTIVE ON _____

THIS PERMIT SHALL EXPIRE AT MIDNIGHT ON _____

OR UPON TERMINATION OF THIS PERMIT IN WRITING BY DEP. TO CONTINUE DISCHARGING AFTER THE EXPIRATION DATE FOR COVERAGE UNDER THIS INDIVIDUAL PERMIT, AN ADMINISTRATIVELY COMPLETE AND ACCEPTABLE APPLICATION MUST BE RECEIVED BY DEP NO LATER THAN 180 DAYS PRIOR TO THE COVERAGE EXPIRATION DATE. (SEE ITEM #6 ON PAGE 1 OF THE AUTHORIZATION TO DISCHARGE FOR FURTHER INFORMATION).

DATE PERMIT ISSUED _____

ISSUED BY _____

Michael J. Brunamonti, P.E.
Clean Water Program Manager
Northeast Regional Office

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT
FOR DISCHARGES OF STORM WATER FROM

CITY OF ALLENTOWN

NPDES PERMIT NO: PA - 0063665

In compliance with the provisions of the Clean Water Act (CWA), 33 U.S.C. Section 1251 et seq. (the "Act") and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 et seq., the Department of Environmental Resources hereby authorizes:

City of Allentown
112 Union Street
Allentown, PA 18102-4910
County: Lehigh

to discharge storm water within its incorporated boundaries, from its municipal separate storm sewer system (MS4), to the **Lehigh River, Little Lehigh Creek, Trout Creek, Cedar Creek, Little Cedar Creek** and **Jordan Creek**, subject to terms and condition contained herein. This permit authorizes storm water discharges from the City's system to receiving waters in accordance with effluent limitations, management practices and monitoring requirements and other conditions set forth in Part A, B and C hereof.

1. **Approval of Coverage Under This Permit** -- A request for renewal of coverage under this permit, in the form of a formal letter, must be submitted to the Department **at least 180 days prior to** the expiration date indicated below. In the event that a timely request for renewal of coverage has been submitted and the Department is unable, through no fault of the City of Allentown (the City), to reissue the approval for coverage before the expiration date, the terms and conditions of this approval will be automatically continued and will remain fully effective and enforceable pending the issuance or denial of the renewal of coverage, provided the City is, and has been, operating in compliance with the terms and conditions of the permit.
2. **Issuance or Reissuance of The Permit** -- This permit expires at midnight _____ . If the City submits a timely renewal request 180 days prior to the expiration, it may continue to discharge storm water from its system pursuant to the terms and conditions of this permit until the Department has re-issued the permit, at which time the City must meet the terms and conditions of the newly issued permit or cease the discharge. The Department

will publish a notice in the Pennsylvania Bulletin of the draft permit, and after a comment period, notice of the final reissued permit will be published in the Bulletin.

3. This permit may be modified or revoked and re-issued by the Department if monitoring data indicates one or more toxic pollutants are, or are expected to be discharged through the permitted system.

4. The City may request from the Department a separate general or individual NPDES permit to be issued for any facility that discharges storm water associated with industrial activity into the City's system.

5. The City may request an individual NPDES permit for a facility with storm water associated with industrial activity which discharges into the City's system and which contributes to a violation of water quality standards, impairs a designated use of the receiving stream or is a significant contributor of pollutants to surface waters of the Commonwealth.

6. The City may request from the Department a reduction of the Census estimates of the population served by its system to account for storm water discharged to combined sewers as defined by 40 CFR 35.2005(b)(11) that is treated in a publicly owned treatment works (POTW). In municipalities in which combined sewers are operated, the Census estimates of population may be reduced proportional to the fraction, based on estimated lengths, of the length of combined sewers over the sum of the length of combined sewers and municipal separate storm sewers where an applicant has submitted the NPDES permit number associated with each discharge point and a map indicating areas served by combined sewers and the location of each combined sewer outfall. The Department shall make a final determination on any request or petition within 90 days after receiving the request.

7. No condition of this permit shall release the City from any responsibility or requirement under other federal or Pennsylvania environmental statutes or regulations or local ordinances.

**THIS MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT IS ISSUED
_ 2014, AND SHALL EXPIRE AT MIDNIGHT _____, 2019, UNLESS EXTENDED
OR RE-ISSUED ON OR BEFORE THIS DATE BY THE DEPARTMENT.**

**THE CITY OF ALLENTOWN
MUNICIPAL SEPARATE STORM
SEWER SYSTEM PERMIT
ISSUED**

BY _____

Michael J. Brunamonti, P.E.

TITLE: _____

**CLEAN WATER PROGRAM MANAGER
NORTHEAST REGIONAL OFFICE**

DATE: _____

PART A
PERMIT CONDITIONS
EFFLUENT LIMITATIONS, SELF-MONITORING AND REPORTING REQUIREMENTS

1. EFFLUENT LIMITATIONS

This permit establishes effluent limitations, in the form of Best Management Practices (BMPs) such as Preparedness, Prevention, and Contingency (PPC) Plans, Management Practices, and Erosion and Sedimentation Control (E & S) Plans which restrict the rates and quantities of pollutants discharged into surface waters of the Commonwealth.

All storm water discharges from the City's system must comply with any applicable effluent limitations established in 25 Pa. Code Chapter 102.

2. LEGAL AUTHORITY

During the period beginning on the effective date and lasting through the expiration date of this permit.

(a) The City shall operate and maintain its legal authority established by statute, ordinance, order or other similar means to control storm water discharges from its system, in accordance with NPDES regulations, 40 C.F.R. Part 122.26(d)(2)(i);

(b) The City shall control the contribution of pollutants to its system, from storm water discharges from South Whitehall, Salisbury, Hanover and Whitehall Townships by renewing their inter-agency agreements with these municipalities, **no later than 12 months** after the issuance of this permit;

(c) The City shall control through ordinance, order, or other similar means, the contribution of pollutants to its system from storm water discharges associated with industrial activity and the quality of storm water discharged from sites of industrial activity;

(d) The City shall prohibit through ordinance, order or similar means, illicit discharges to its system;

(e) The City shall require, mandate, and enforce compliance with conditions in ordinances, permits, contracts or orders;

(f) The City shall carry out all inspection, surveillance and monitoring procedures necessary to determine compliance and non-compliance with permit conditions including the prohibition of illicit discharges to the City's municipal separate storm sewer system; and

(g) In the event that any provision of its legal authority is found to be invalid, the City shall make necessary change(s) to maintain adequate legal authority.

3. SOURCE IDENTIFICATION

During the period beginning on the effective date and lasting through the expiration date of this permit:

(a) The City shall compile and submit any new source identification information, including the identification and mapping of storm sewer system outfalls, and significant changes affecting the City's separate storm system due to: land use activities, population estimates, runoff coefficients, major structural controls, landfills, publicly owned lands, and industries in the annual reports to the Department pursuant to Part A(8)(c) "Annual Progress Report" of this permit.

(b) The City shall provide, **no later than 3 months** after the issuance of this permit, an updated inventory of industries organized by watershed with facility name, address, and description (which best reflects the principle products or services provided by each facility) which may discharge to the Municipal Separate Storm Sewer System, and submit this inventory with annual reports to the Department pursuant to Part A(8)(c) "Annual Progress Reports" of this permit.

4. DISCHARGE CHARACTERIZATION

This permit establishes monitoring requirements for the City as set forth below.

For all storm water discharges covered under this permit, a water quality-based effluent limitation may be required under applicable state and federal law when necessary to ensure that water quality standards and designated use(s) of the receiving water are attained. Discharge(s) of storm water covered under this permit shall not cause a violation of water quality criteria as prescribed in 25 Pa. Code Chapters 16 and 93.

During the period beginning on the effective date and lasting through the expiration date of this permit, the City shall:

(i) Submit quantitative data on physical and chemical characteristics to the Department, annually, for 5 representative outfalls identified in the City's Part 2 storm water application;

(ii) Collect during the term of the permit, samples of storm water discharges for each representative outfall above, from three storm events occurring at least one month apart in accordance with requirements at 40 CFR 122.21(g)(7). All samples shall be collected following a storm event that is equal or greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (0.1 inch rainfall) storm event. The Department may allow exemptions to sampling three storm events when climate conditions create good cause for such exemptions. Flow rates shall be estimated at points where discrete samples are taken.

(iii) Submit above collected samples for analysis according to methods listed under 40 CFR Part 136 for the following pollutants:

BOD-5	Silver, Total
COD	Thallium, Total
Total Kjeldahl Nitrogen (TKN)	Zinc, Total
Nitrate	Cyanide, Total (Grab)
Total Ammonia plus Organic Nitrogen	Phenols, Total (Grab)
Antimony Total	Total Phosphorous
Arsenic, Total	Dissolved Phosphorus
Beryllium, Total	Total Suspended Solids (TSS)
Cadmium, Total	Total Dissolved Solids
Chromium, Total	Oil and Grease (Grab)
Copper, Total	pH (Grab)

Mercury, Total
Nickel, Total
Selenium, Total

Fecal Coliform (Grab)
Fecal Streptococcus (Grab)

(iv) Collect samples of storm water discharges for each representative outfall above, from three storm events during the term of the permit, occurring at least one month apart in accordance with requirements at 40 CFR 122.21(g)(7). All samples shall be collected following a storm event that is equal or greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (0.1 inch rainfall) storm event. The Department may allow exemptions to sampling three storm events when climate conditions create good cause for such exemptions. Flow rates shall be estimated at points where discrete samples are taken.

(v) Submit samples for analysis according to methods listed under 40 CFR Part 136 for the following pollutants:

VOLATILES

Acrolein	1,2-Dichloropropane
Acrylonitrile	1,3-Dichloropropylene
Benzene	Ethylbenzene
Bromoform	Methyl Bromide
Carbon Tetrachloride	Methyl Chloride
Chlorobenzene	Methylene Chloride
Chlorodibromomethane	1,1,2,2-Tetrachloroethane
Chloroethane	Tetrachloroethylene
2-Chloroethylvinyl Ether	Toluene
Chloroform	1,2-Trans-dichloroethylene
Dichlorobromomethane	1,1,1-Trichloroethane
1,1-Dichloroethane	1,1,2-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
1,1-Dichloroethylene	Vinyl Chloride

ACID COMPOUNDS

2-Chlorophenol	4-Nitrophenol
2,4-Dichlorophenol	P-chloro-m-cresol
2,4-Dimethylphenol	Pentachlorophenol
4,6-Dinitro-o-cresol	Phenol
2,4-Dinitrophenol	2,4,6-Trichlorophenol
2-Nitrophenol	

BASE/NEUTRAL

Acenaphthene	Diethyl Phthalate
Acenaphthylene	Dimethyl Phthalate
Anthracene	Di-n-butyl Phthalate
Benzidine	2,4-Dinitrotoluene
Benzo(a)anthracene	2,6-Dinitrotoluene
Benzo(a)pyrene	Di-n-octyl Phthalate
3,4-Benzofluoranthene	1,2-Diphenylhydrazine (as Azobenzene)
Benzo(ghi)perylene	Fluoranthene
Benzo(k)fluoranthene	Fluorene
Bis(2-chloroethoxy)methane	Hexachlorobenzene
Bis(2-chloroethoxy)ether	Hexachlorobutadiene
Bis(2-chloroisopropyl)ether	Hexachlorocyclopentadiene
Bis(2-ethylhexyl)phthalate	Hexachloroethane
4-Bromophenyl Phenyl Ether	Indeno(1,2,3-cd)pyrene
Butylbenzyl Phthalate	Isophorone
2-Chloronaphthalene	Naphthalene
4-Chlorophenyl Phenyl Ether	Nitrobenzene
Chrysene	N-nitrosodimethylamine
Dibenzo(a,h)anthracene	N-nitrosodi-n-propylamine
1,2-Dichlorobenzene	N-nitrosodiphenylamine
1,3-Dichlorobenzene	Phenanthrene
1,4-Dichlorobenzene	Pyrene

3,3'-Dichlorobenzidine

12,4-Trichlorobenzene

PESTICIDES

Aldrin
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC
Chlordane
4,4'-DDT
4,4'-DDE
4,4'-DDD
Dieldrin
Alpha-endosulfan
Beta-endosulfan
Endosulfan Sulfate

Endrin
Endrin Aldehyde
Heptachlor
Heptachlor Epoxide
PCB-1242
PCB-1254
PCB-1221
PCB-1232
PCB-1248
PCB-1260
PCB-1016
Toxaphene

(vi) Provide a description, for each storm event, of the date, duration of the storm event(s) sampled, and rainfall intensity which generated the sampled discharge;

(vii) When the City is unable to collect samples due to adverse climatic conditions, the City must submit, in lieu of sampling data, a description of why samples could not be collected, including available documentation of the event. Adverse climatic conditions which may prohibit the collection of samples include weather conditions that create dangerous conditions for personnel (such as local flooding, high winds, hurricane, tornadoes, electrical storms, etc.) or otherwise make the collection of a sample impracticable (drought, extended frozen conditions, etc.). This information shall be submitted in the annual reports to the Department pursuant to Part A(8)(c) "Annual Progress Reports" of this permit;

(viii) **No later than 3 years** after the issuance of this permit renewal, estimate annual, seasonal pollutant loads and estimates of the event mean concentrations for all storm water outfalls identified in the City's Part 2 storm water application, using data collected and submitted with annual reports to the Department pursuant to Part A(8)(c) "Annual Progress Reports";

(ix) The Department may require quantitative data for additional parameters and/or may establish sampling conditions such as location, season of sample collection, or form of precipitation necessary to insure representativeness.

5. STORM WATER MANAGEMENT PROGRAM

During the period beginning on the effective date and lasting through the expiration date of this permit, the City shall implement a storm water management program consistent with applicable State and Federal laws, and:

(a) Maintain and implement on a system-wide basis, watershed basis, jurisdiction basis or on an individual basis the storm water management program as proposed in the City's Part 2 storm water application to control and/or reduce the discharge of pollutants into the system to the maximum extent practicable;

- (b) Provide a description of a comprehensive program to monitor and control to the maximum extent practicable, pollutants in runoff to the City's municipal system from operating or closed municipal landfills, hazardous waste treatment sites, industrial facilities that are subject to Section 313, Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), storage, recovery or disposal facilities for municipal wastes, and industrial sites that handle, store, or transport toxics or hazardous materials, that the City determines are contributing a substantial pollutant loading to its system;
- (c) Provide an assessment of the effects of operating and maintaining public streets, roads and highways and procedures for reducing or controlling potential impacts on receiving waters from the municipal storm sewer system, including pollutants discharged as a result of de-icing activities;
- (d) Provide a description of a monitoring program for storm water discharges associated with industrial activities;
- (e) Provide a description of a comprehensive program to detect and eliminate dumping or disposal of materials other than storm water into the City's Municipal Separate Storm Sewer System;
- (f) Provide a description of a comprehensive program, including inspections, to implement and enforce an ordinance, order or by a similar means to prevent new and/or to remove existing illicit discharges from connecting to the City's municipal storm sewer system;
- (g) Provide a description of procedures to prevent, contain, and respond to spills that may discharge into the municipal storm sewer system;
- (h) Provide a description of a comprehensive program for control of residential, commercial, and industrial land uses. The program shall also include assessment of pesticide, herbicide, and fertilizer use that may discharge into the municipal storm sewer system;
- (i) Provide a description of a comprehensive program to implement and maintain structural and non-structural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal separate storm sewer system;
- (j) Conduct preventive maintenance inspections of all storm water management facilities at least on a triennial basis. Inspections, necessary corrective action, and enforcement actions shall be documented and summarized in annual progress reports to the Department pursuant to Part A(8)(c) "Annual Progress Reports" of this permit.

6. ASSESSMENT OF CONTROLS

During the period beginning on the effective date and lasting through the expiration date of this permit, **the City shall:**

- (i) **Within the last 3 years** of the permit renewal term, estimate the reduction in loading of pollutants for all storm water outfalls identified in the City's Part 2 storm water application, using data collected as a result of long-term monitoring and submitted with annual reports to the Department pursuant to Part A (8)(c) "Annual Progress Reports" of this permit. These assessments shall also identify known impacts of storm water; and

(ii) Assess the effectiveness of its storm water management program, including street sweeping, litter control, de-icing procedures, and the application of herbicides for vegetation control on storm water discharges. This assessment shall include an analysis of alternative practices for reducing pollutants associated with road maintenance activities;

(iii) Maintain an acceptable Erosion and Sediment (E & S) control program for areas, which due to topography, activities, or other factors, have a potential for significant soil erosion in accordance with 25 Pa. Code Chapter 102 and the Bureau of Land and Water Conservation's "Erosion and Sediment Pollution Control Program Manual"; and

(iv) Effectively prohibit non-storm water discharge through its municipal separate storm sewer system, except non-storm water discharges as provided in Part C(1) of this permit. The discharge of storm water containing pollutants which have not been reduced to the maximum extent practicable is prohibited.

7. FISCAL ANALYSIS

During the period beginning on the effective date and lasting through the expiration date of this permit renewal , the City shall:

(i) Maintain necessary capital, operation and maintenance expenditures needed to accomplish the activities of the storm water program and the conditions of this permit; and

(ii) Maintain sufficient financial resources to complete storm water activities required in this permit and comply with state and federal storm water regulations.

8. REPORTING REQUIREMENTS

a. Reporting of Monitoring Requirements

(i) Monitoring results shall be summarized on a Discharge Monitoring Report (DMR) Form and where appropriate, in annual reports" to the Department pursuant to Part A(8)(c) "Annual Progress Reports" of this permit. (The original DMR Form(s) attached are to serve as the master copy.) A signed copy of the DMR Form and all other reports required herein, shall be submitted to the Northeast Regional Office of the Bureau of Water Management, 2 Public Square, Wilkes-Barre, PA 18711-1915.

b. Non-Compliance Reporting:

(1) **Required Reporting.** The City shall report non-compliance to the Department in accordance with the following:

(a) 24-Hour Oral Reporting - the permittee shall give at least a 24-hour advance notice to the Department of any planned changes that may result in non-compliance with permit requirements. The City shall also report non-compliance with any term or condition of this permit, and any statute, rule, or regulation, to the Department within 24 hours of becoming aware of the non-compliance.

(b) Follow-up Written Reporting - where the City orally reports the information in Part A(8)(b)(1)(a) within the previously mentioned 24-hour time period, a written report outlining the reported information must be completed, kept on file, and submitted to the Department upon request.

(c) Non-compliance reporting pursuant to Part A(8)(b)(1)(a&b) shall not excuse the City from immediate notification to the Department of incidents causing or threatening pollution pursuant to 25 Pa. Code §101.2(a).

(2) Required Information. The reports and notifications required in Part A(8)(b)(1) above shall contain the following information:

- (a) An explanation of the cause of non-compliance;
- (b) The period of non-compliance, including exact dates and times and the anticipated time when the city will return to compliance; and
- (c) Steps being taken to reduce, eliminate, and prevent recurrence of the non-complying event.

c. Annual Progress Reports

Annual progress reports required under 40 CFR 122.226(c) to facilitate the long-term assessment of the City's NPDES storm water program shall be submitted to the Northeast Regional Office of the Bureau of Water Management, 2 Public Square, Wilkes-Barre, PA 18711-1915, within 45 days of the anniversary date of this permit issuance for each year of the permit term. As a minimum, reports shall include:

- (i) The status of implementing components of the City's storm water management program that are required in Part A(5) of this permit;
- (ii) Proposed changes to the City's storm water management as required in Part A(5) of this permit;
- (iii) Revisions, if necessary, to the controls required in Part A(6) and the fiscal analysis required in Part A(7) of this permit;
- (iv) Summary of data, including monitoring data, that are accumulated throughout the reporting year;
- (v) Projected annual expenditures and budget for the year following each annual report;
- (vi) A summary describing the number and nature of enforcement actions, inspections, and public education program; and
- (vii) Identification of water quality improvements or degradation within the City's incorporated boundary.

PART B
STANDARD CONDITIONS

1. MANAGEMENT REQUIREMENTS

a. Permit Modification, Termination, or Revocation and Reissuance

(1) This permit may be modified, suspended, revoked and reissued, or terminated during its term for any of the causes specified in 25 Pa. Code Chapter 92.

(2) The filing of a request by the City for a permit or coverage modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated non-compliance, does not stay any permit condition.

b. Duty to Provide Information

(1) The City shall furnish to the Department, within a reasonable time, any information that the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or coverage approved under this permit, or to determine compliance with this permit.

(2) The City shall furnish to the Department, upon request, copies of records required to be kept by this permit.

(3) When the City becomes aware that it failed to submit any relevant facts or submitted incorrect information to the Department, the City shall promptly correct such submitted information.

c. Signatory Requirements

All applications, Preparedness, Prevention and Contingency Plans, reports, certifications, notifications or information either submitted to the Department, or that this permit requires be maintained by the City, shall be signed by either a principal executive officer or ranking elected official, or by a duly authorized representative of that person.

A person is a duly authorized representative only if:

(a) The authorization is made in writing by a person described above and submitted to the Department with the reports.

(b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).

(3) Changes in Authorization. If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the City's system, a new authorization satisfying the requirements of Part B.1.c must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

d. Transfer of Ownership or Control

(1) This permit is not transferable to any person except after notice to the Department.

(a) In the event of any pending change in control or ownership of the City's system from which the authorized discharges emanate, the City shall notify the Department by letter of such pending change at least 30 days prior to the change in ownership or control.

(b) The letter shall be accompanied by a written agreement between the City and the new owner or operator stating that the City shall be liable for violations of the permit up to and until the date of coverage transfer and that the new owner or operator shall be liable for permit violations under the permit from that date on.

(c) After receipt of the previously mentioned documentation, the Department shall notify the City and the new owner or controller of its decision concerning approval of the transfer. Such requests shall be deemed approved unless the Department notifies the City otherwise within 30 days.

e. Removal Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters or drinking water shall be managed and disposed of in accordance with the requirements of the Solid Waste Management Act, 35 P.S. §6018.101, et seq., and in a manner such as to prevent any pollutant from such materials from adversely affecting the environment.

f. Construction, Operation, and Maintenance

The City shall design and build and, at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), including Best Management Practices (BMPs) such as PPC Plans, E & S Plans, and any other storm water pollution prevention or management plans, which are installed or used by the City to achieve compliance with the conditions of this permit. BMPs shall be designed, implemented, and maintained to minimize or eliminate impacts from storm water runoff. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by the City only when necessary to achieve compliance with the conditions of this permit.

g. Adverse Impact

The City shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

h. Reduction, Loss, or Failure of the Treatment Facilities or Operational Controls

Upon reduction, loss or failure of the City's treatment facilities or other operational controls, in order to maintain compliance with its permit, the City shall control all discharges until either the facility or operational controls are restored or an alternative method of treatment or control is provided. This requirement applies in the situation where, among other things, the primary source of power for the City's treatment facility or other controls is reduced, lost, or failed.

2. RESPONSIBILITIES

a. Duty to Comply

The City must comply with all terms and conditions of this permit. Any permit non-compliance constitutes a violation of the Pennsylvania Clean Streams Law and the Clean

Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit or permit renewal.

b. Penalties for Violations of Permit Conditions

(1) Criminal.

(a) **Negligent Violations.** The CWA provides that any person who negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both. In addition, Section 602 of the Clean Streams Law provides criminal penalties for violations of permit conditions.

(b) **Knowing Violations.** The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a fine of not less than \$5,000 nor more than \$50,000 per day of violation, or by imprisonment for not more than 3 years, or both. In addition, Section 602 of the Clean Streams Law provides criminal penalties for violations of permit conditions.

(c) **Knowing Endangerment.** The CWA provides that any person who knowingly violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act and who knows at that time that he is placing another person in imminent danger of death or serious bodily injury is subject to a fine of not more than \$250,000, or by imprisonment for not more than 15 year, or both. In addition, Section 602 of the Clean Streams Law provides criminal penalties for violations of permit conditions.

(d) **False Statement.** The Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with, or renders inaccurate, any monitoring device or method required to be maintained under the Act, shall upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment for not more than 2 years, or both. If a conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$20,000 per day of violation, or by imprisonment for not more than 4 years, or by both. (See Section 309(c)(4) of the Clean Water Act). In addition, the provisions of the Pennsylvania Crimes Code relating to False Swearing and Unsworn Falsification provide criminal sanctions for such actions. See 18 Pa. C.S. §§4903-4904.

(2) Civil Penalties. The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to a civil penalty not to exceed \$25,000 per day for each violation. In addition, Section 605 of the Pennsylvania Clean Streams Law provides for penalties up to \$10,000 a day for violations of permit conditions, for each separate offense.

(3) Administrative Penalties. The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Act is subject to an administrative penalty, as follows:

(a) Class I penalty. Not to exceed \$10,000 per violation nor shall the maximum amount exceed \$25,000.

(b) Class II penalty. Not to exceed \$10,000 per day for each day during which the violation continues nor shall the maximum amount exceed \$125,000.

c. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the City in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

d. Penalties and Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the City from any responsibilities, liabilities, or penalties to which the City is or may be subject under Section 311 of the CWA (33 U.S.C. §1321) or Section 106 of CERCLA.

e. Property Rights

The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

f. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

g. Other Laws

Nothing in this permit shall be construed to preclude the City of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

h. Right of Entry

Pursuant to Sections 5(b) and 305 of the Pennsylvania Clean Streams Law (35 P.S. §§691.1(b) and 691.305) and 25 Pa. Code Chapter 92, and §1917-A of the Administrative Code, the City shall allow the head of the Department, the EPA Regional Administrator, and/or an authorized representative of EPA, or, DEP, upon the presentation of credentials and other documents, as may be required by law, to:

(1) Enter upon the City's premises where records must be kept under the conditions of this permit;

(2) Have access to and copy at reasonable times, any records that must be kept under the terms and conditions of this permit;

(3) Inspect any equipment (including monitoring and control equipment); and

(4) Sample any discharge of storm water runoff.

i. Penalties for Falsification of Reports

Section 309(c)(4) of the Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. In addition, criminal sanctions are set forth for false swearing and unsworn falsification at 18 Pa. C.S. §§4903-4904.

j. Penalties for Falsification of Monitoring Systems

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the Clean Water Act. In addition, criminal sanctions are set forth for false swearing and unsworn falsification at 18 Pa. C.S. §§4903-4904.

3. DEFINITIONS

"Best Management Practices (BMPs)"

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution to the waters of the Commonwealth. BMPs include PPC Plans, Erosion and Sedimentation Control Plans, Storm Water Management Act Plans, and other treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Code of Federal Regulations (CFR)"

A compilation of all Federal regulations implementing the various Federal acts.

"Co-Permittee"

A discharger of storm water associated with industrial activity who is jointly and severally responsible for compliance with all conditions of the permit and applicable laws with another entity for a discharge to surface waters of the Commonwealth from its industrial activity. Each co-permittee shall only be responsible for storm water discharge(s) from activities owned and/or operated by such co-permittee.

"Department"

The Department of Environmental Protection of the Commonwealth.

"Director"

The Secretary of the Department of Environmental Protection, or any authorized employee thereof.

"Effluent Limitation"

Any restrictions imposed by the Department on quantities, discharge rates, and concentrations of "pollutants" which are "discharged" from "point sources" into "surface waters of the Commonwealth."

"Grab Sample"

A single "dip and take" sample collected at a representative point in the discharge stream.

"Large and Medium Municipal Separate Storm Sewer System"

All municipal separate storm sewers that are either:

- (a) Located in an incorporated place with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census; or
- (b) Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties; or
- (c) Owned or operated by a municipality other than those described in paragraph (a) or (b) and that are designated by the Department as part of the large or medium municipal separate storm sewer system.

"Major Municipal Separate Storm Sewer Outfall"

Municipal separate storm sewer outfall that discharges from a circular pipe with a diameter of more than 36 inches or its equivalent. Equivalency may be based on a drainage area of 50 or more acres associated with a discharge from other than a circular pipe or the trapezoidal, rectangular, and triangular equivalent size open channel. For municipal separate storm sewers that receive storm water from lands zoned for industrial activity (based on comprehensive zoning plans or the equivalent), an outfall that discharges from a pipe with a diameter of greater than 12 inches or its equivalent is a major outfall. Equivalency may be based on a drainage area of 2 or more acres associated with a discharge from other than a circular pipe or the trapezoidal, rectangular, and triangular equivalent size open channel.

"Municipal Separate Storm Sewer"

Conveyance or system of conveyances (including public conveyances and public roads with drainage systems) that is owned or operated by a city, town, borough, county,

parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act (CWA) that discharges to waters of the United States and that is designed solely for collecting or conveying storm water that is not part of a publicly owned treatment works (POTW) as defined by 40 CFR 122.2.

"Municipality"

Any county, city, borough, town, township, school district, institution or any authority created by one or more of the foregoing. For the purposes of this definition, a town shall mean an unincorporated town.

"Outfall" or "Point Source"

Point source as defined by 25 Pa. Code §92.1 which is any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, vessel, or other floating craft from which pollutants are or may be discharged.

"Person"

Any natural person, partnership, association, corporation, business organization, or any agency, instrumentality or entity of Federal or State Government. Whenever used in any clause prescribing and imposing a penalty, or imposing a fine or imprisonment or both, the term "person" shall not exclude the members of an association and the directors, officers, or agents of a corporation.

"Runoff Coefficient"

The fraction of total rainfall that will appear at a conveyance as runoff.

"Significant Materials"

Includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

"Significant Spills"

Includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 C.F.R. Section 110.10 and 40 C.F.R. Section 117.21) or Section 102 of CERCLA (see 40 C.F.R. Section 302.4)

"Storm Water"

Storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Associated With Industrial Activity"

For purposes of this permit, the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant into surface waters of the Commonwealth. The term does not include discharges from facilities or activities excluded from the NPDES Program. For the categories of industries identified in subparagraphs (1) through (9) of this subsection, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility material handling sites; refuse sites, including trash transfer stations, waste drop off sites, and waste processing facilities; sites used for the application or disposal of process waste waters (as defined at 40 C.F.R. Part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (10), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (10), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally, State, or municipally owned or operated that meet the description of a facility listed in paragraphs (1)-(10)) include those facilities designated under 40 C.F.R. Section 122.26(a)(l)(v). The following categories of facilities are considered to be engaging in "industrial activity":

(1) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 C.F.R. Subchapter N (except facilities with toxic pollutant effluent standards which are exempted as described under 10 below);

(2) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285), 29, 311, 32 (except 323), 33, 3441, 373;

(3) Facilities classified as Standard Industrial Classifications 10 through 14 (Mineral Industry), including active or inactive mining operations (inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator), and oil and gas exploration, production, processing, treatment operations, or transmission facilities, that discharge storm water contaminated by contact with, or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of such operations. This category does not include: (1) storm water discharges emanating from coal (anthracite and bituminous) mining activities subject to the effluent limits set forth in 25 Pa. Code Chapters 86-90, including discharges from coal mining activities that have obtained Stage II bond release pursuant to the standards set forth in 25 Pa. Code § 86.174; (2) storm water discharges emanating from surface non-coal mining activities subject to the effluent limitations set forth in 25 Pa. Code Chapter 77, including discharges from non-coal surface mines that have been released from reclamation requirements under the Noncoal Surface Mining Conservation and Reclamation Act and regulations promulgated thereto, after December 17, 1990; and (3) any other storm water discharges from active and inactive coal mining activities and noncoal surface mining sites which are covered under an individual NPDES permit issued as part of a coal mining activity or noncoal surface mining permit in the Commonwealth;

(4) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;

(5) Landfills, and land application sites, that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under Subtitle D of RCRA;

(6) Facilities involved in the recycling of materials, including metal scrapyards, recycling centers, scrap metal processors, battery reclaimers, salvage yards, automobile yards, and other automotive dismantlers and recyclers, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

(7) Steam electric power generating facilities, including coal handling sites;

(8) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42 (except 4221-4225), 43, 44, 45 and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations;

(9) Treatment works treating domestic sewage, or any other sewage sludge or wastewater treatment device or system, used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 million gallons per day (mgd) or more, or required to have an approved pretreatment program under 40 C.F.R. Part 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 C.F.R. Part 503. This category does not include Publicly Owned Treatment Works (POTWs) serving a population less than 100,000 which are not required to apply for and obtain NPDES permits for storm water discharges not covered under their existing

NPDES permits pursuant to Section 1068(c) of the federal Intermodal Surface Transportation Efficiency Act of 1991; and

(10) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37, (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (1)-(9)). The term includes only storm water discharges from all areas listed (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, byproducts, or industrial machinery are exposed to storm water.

"Surface Waters of the Commonwealth"

Any and all rivers, streams, creeks, rivulets, impoundments, ditches, water courses, storm sewers, lakes, dammed water, ponds, springs and all other bodies or channels of conveyance of surface water, or parts thereof, including wetlands, whether natural or artificial, within or on the boundaries of this Commonwealth.

PART C

OTHER CONDITIONS

1. PROHIBITION OF NON-STORM WATER DISCHARGES

a. Except as provided in paragraph C.1.a.(2) (below), all discharges covered by this permit shall be composed entirely of storm water.

(1) Except as provided in paragraph C.1.a.(2) (below), discharges of material other than storm water must be in compliance with an NPDES permit (other than this permit) issued for the discharge.

(2) The following non-storm water discharges may be authorized by this permit: discharges from fire fighting activities; fire hydrant flushings; potable water sources including waterline flushings; irrigation drainage; lawn watering; routine external building washdown which does not use detergents or other compounds; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

2. SPILLS

This permit does not authorize the discharge of any toxic or hazardous substance or oil resulting from an on-site spill.

3. ADDITIONAL REQUIREMENTS FOR SALT STORAGE FROM INDUSTRIAL ACTIVITY WITHIN THE CITY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM

Facilities within the City's incorporated boundary with storage piles of salt used for deicing or other commercial or industrial purposes and which generate a storm water discharge associated with industrial activity which is discharged to City's municipal separate storm sewer system shall be enclosed or covered to prevent exposure to precipitation, except for exposure resulting from adding or removing materials from the pile. Existing industrial facilities shall demonstrate compliance with this provision as expeditiously as practicable, but in no event later than three years after the date of issuance of the facility's permit. All new discharges must meet this requirement upon approval. Piles do not need to be enclosed or covered where storm water from the pile is not discharged to surface waters of the Commonwealth.

4. TOTAL MAXIMUM DAILY LOAD (TMDL) REQUIREMENTS:

If the regulated MS4 discharges stormwater into any portion of a receiving water with applicable Wasteload Allocations (WLAs) in approved TMDLs, the permittee shall

implement an approved MS4 TMDL Plan that is designed to achieve pollutant reductions consistent with the applicable WLAs in the TMDLs. When an MS4 TMDL Plan is required, that MS4 TMDL Plan must be implemented according to the schedule in the approved plan.

For each regulated MS4 that discharges stormwater into any portion of a receiving water with applicable wasteload allocations in approved TMDLs, permittees shall develop, submit to DEP for approval, and ensure implementation of a written MS4 TMDL Plan that is designed to achieve pollutant reductions consistent with the assumptions and requirements of the applicable wasteload allocations in the approved TMDLs. An MS4 TMDL Plan consists of two (2) components: an MS4 TMDL Strategy and MS4 TMDL Design Details. The MS4 TMDL Strategy must include a narrative discussion of how the MS4 TMDL Plan will satisfy the requirements in Subsections a through c below. MS4 TMDL Design Details must be submitted to DEP within one (1) year of the effective date of this permit for written approval by DEP. The complete MS4 TMDL Plan must satisfy the requirements in Subsections a through d below, including final design details for the BMPs that will be implemented during the term of this permit. MS4 TMDL Plans must include a timeline (schedule) with milestones and upon approval the plan must be implemented as soon as practicable, and no later than according to the approved timeline.

a. MS4 TMDL Plan for Impaired Waters with a TMDL

The MS4 TMDL Plan must be consistent with the conditions and assumptions of the any applicable waste load allocation(s) (WLAs) in approved TMDLs, and it must include implementation of pollutant control measures that reduce pollutants in discharges from the regulated MS4s as required by the wasteload allocations in the TMDLs. (Note: The MS4 TMDL Plan is in addition the Stormwater Management Program (SWMP) in Appendix A required to satisfy the six (6) mandatory MCMs).

The permittee's progress with implementation of the MS4 TMDL Plan must be fully described in every periodic report.

b. MS4 TMDL Plan, Required Contents

The MS4 TMDL Plan shall reduce pollutants in discharges from the regulated MS4 as required by applicable wasteload allocations in approved TMDLs. The permittee must develop, submit to DEP for approval, and ensure implementation of the MS4 TMDL Plan in accordance with the approved timeline.

MS4 TMDL Plans shall include:

- i. The Title of TMDL or TMDL(s);
- ii. A list of the watershed name(s) and the eight-digit Hydrologic Unit Code (HUC) for the areas that discharge through the regulated MS4s to waterbodies with TMDLs;
- iii. A list of the pollutant(s) and Waste Load Allocations (WLAs) assigned to each regulated MS4 in each municipality covered by this permit;
- iv. For each applicable TMDL, a list all of the municipalities subject to the TMDL within the area of the same eight-digit HUC;
- v. For each applicable TMDL, a list of all the counties subject to the TMDL within the area of the same eight-digit HUC;
- vi. Allocated pollutant loadings established in each applicable TMDL;

- vii. Reductions in pollutant loads (pounds or percent) necessary to meet each applicable TMDL or WLA;
- viii. For each regulated MS4 outfall that discharges to waters with TMDLs, and for each TMDL, list all of the control measures and BMPs that will be implemented and reported to achieve consistency with each applicable TMDL or WLA. Include a brief analysis to explain and justify the control measures and BMPs that were selected for implementation.
- ix. Permittees must include an analysis to show that implementation of the MS4 TMDL Plan, including the selected control measures and BMPs, will reduce the pollutant loads consistent with the applicable WLAs established in approved TMDLs. Permittees must include a timeline with milestones. Implementation of the MS4 TMDL Plan may be phased, in accordance with the timeline, and can be adaptive, iterative, and dynamic to show measurable progress toward meeting pollutant load reductions. Permittees must evaluate and update MS4 TMDL Plans as necessary, based on effectiveness in reducing pollutant discharge loads to meet approved TMDLs and applicable WLAs. MS4 TMDL Plans must include a process for evaluating control measures and BMPs, implementation efforts undertaken to date, and any changes made to the control measures or BMPs to obtain greater reductions in pollutant loadings from the outfalls of the regulated MS4s.
 - x. Additional information deemed necessary by DEP or by the permittee for addressing the TMDL.

Information for TMDLs (including HUC numbers) can be found at www.depweb.state.pa.us, keyword: TMDL.

c. Signature and Seal by Professional Engineer for MS4 TMDL Plans

MS4 TMDL Strategies and an MS4 TMDL Plans must be signed and sealed by a Professional Engineer (PE) holding a valid license in good standing from the Pennsylvania Department of State.

d. Implementation Requirements

Permittees shall develop, submit to DEP for approval, and ensure implementation of an MS4 TMDL Plan that is consistent with the applicable WLAs in approved TMDLs and that is designed to achieve the pollutant reductions established by applicable WLAs in the TMDLs. The term "implement" includes any action that may be necessary for the permittee to ensure the proper operation and maintenance of all pollutant control measures identified in, or associated with, the MS4 TMDL Plan. Permittees shall report on implementation of the MS4 TMDL Plan in each periodic report submitted under this permit. All pollutant control measures needed to reduce the pollutant load consistent with the TMDL shall be implemented as soon as practicable, in accordance with the MS4 TMDL Plan's timeline, to make measurable progress in substantially reducing the applicable pollutant loads. Implementation of all measures can be adaptive, iterative, and dynamic. The MS4 TMDL Plan shall be evaluated and updated by the permittee as necessary, based on its effectiveness in reducing pollutant loads in discharges from the regulated MS4s.

The MS4 TMDL Plan shall demonstrate that the required pollutant load reductions will be achieved, consistent with the TMDL, and the Plan must be implemented as soon as practicable. The MS4 TMDL Plan can demonstrate this by showing how measurable implementation progress will be made in substantially reducing applicable pollutant loads specified in the WLA, in accordance with the implementation timeline, including attainment of applicable milestones, along with the proposed end date for ultimate attainment of the pollutant load reductions set forth in the WLA.

Permittees shall report on progress with implementation of the MS4 TMDL Plan in all periodic reports and in the final report submitted with the next renewal application. Permittees must include the reductions in pollutant loads attained by implementation of control measures or BMPs, broken down measure by measure or BMP by BMP. Permittees must have physical pollutant removal measures installed on-the-ground in time for their successful operation to be documented in the periodic report or the progress report submitted at the end of the third year of coverage under this permit. Additional measurable substantial progress with installation of physical pollutant removal measures must be documented in the reports submitted with the next successive application for a renewal permit.

5. DISCHARGES TO IMPAIRED WATERS WITHOUT A TMDL:

For each regulated MS4 that discharges stormwater into any portion of a receiving water that is impaired, but does not have an approved TMDL, permittees shall ensure that new discharges from the permittee's regulated MS4s do not cause or contribute to exceedances of water quality standards. Permittees must:

- a. identify outfalls that discharge to impaired waters;
- b. identify additional or modified BMPs in the SWMP to ensure that new discharges do not cause or contribute to the impairment; and
- c. implement such BMPs and report on the status of each.

Permittees shall report on progress with implementation of the additional or modified BMPs in the each periodic report.

6. CERTIFICATION

Any person signing documents under this section shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



Individual Permit Appendix A Stormwater Management Program

This Appendix A contains specific Best Management Practices (BMPs) and Measurable Goals that make up the permittee's Stormwater Management Program (SWMP) and that are required for the permittee to comply with this NPDES Municipal Separate Storm Sewer System (MS4) permit. There are six (6) Minimum Control Measures (MCMs), which are required by Federal Regulations. Within each MCM, the permittee will implement several BMPs as conditions of this permit. Associated with each BMP are Measurable Goals, which represent the means by which the permittees' accomplishments shall be reported and evaluated. For supplemental information on the six (6) MCMs, permittees are encouraged to refer to www.depweb.state.pa.us, keyword: Stormwater. For a national perspective on guidance for setting measurable goals, please refer to EPA's publication "Measurable Goals Guidance for Phase II Small MS4s," available from EPA's website: <http://cfpub.epa.gov/npdes/stormwater/measurablegoals/index.cfm>.

In your permit application you indicated whether the BMPs and Measurable Goals under each of the six (6) MCMs follow exactly the wording provided by DEP in DEP's version of this Appendix A, or whether you provided alternative BMPs and Measurable Goals for any of the MCMs. You are required to satisfy all requirements of this Stormwater Management Program as a condition of this permit during the term of this permit.

MCM #1: Public Education and Outreach on Stormwater Impacts

The following are the requirements for MCM #1 that are included in the Federal Regulations:

- *Implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps that the public can take to reduce pollutants in stormwater runoff (40 CFR Part 122.34(b)(1)(i)).*

The following requirements, Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:

BMP #1: Develop, implement and maintain a written Public Education and Outreach Program (PEOP).

Measurable Goal: For new permittees, a PEOP shall be developed and implemented during the first year of coverage under this permit and shall be re-evaluated each permit year thereafter and revised as needed. For renewal permittees, the existing PEOP shall be reviewed and revised as necessary. The permittee's PEOP shall be designed to achieve measurable improvements in the target audience's understanding of the causes and impacts of stormwater pollution and the steps they can take to prevent it.

Recommendation: Refer to the Environmental Protection Agency (EPA) document, "[Getting In Step, A Guide for Conducting Watershed Outreach Campaigns](#)" (EPA 841-B-03-002, December, 2003), for guidance on developing and implementing the PEOP.

BMP #2: Develop and maintain lists of target audience groups that are present within the areas served by your regulated small MS4s. In most communities, the target audiences shall include residents, businesses (including commercial, industrial and retailers), developers, schools, and municipal employees.

Measurable Goal: For new permittees, the lists shall be developed within the first year of coverage under the permit and reviewed and updated as necessary every year thereafter. For renewal permittees, the lists shall continue to be reviewed and updated annually.

Recommendation: Utilize databases or spreadsheets to record and track this information and to allow for easy identification and creation of mailing lists easily retrievable.

BMP #3: You must annually publish at least one (1) issue of a newsletter, a pamphlet, a flyer, or a website that includes general stormwater educational information, a general description of your Stormwater Management Program, and/or information about your stormwater management activities. The list of publications, including websites, and the content of the publications must be reviewed and updated at least once during each year of permit coverage. Publications should include a list of references (or links) to refer the reader to additional information (e.g., PADEP and US EPA stormwater websites, and any other sources that will be helpful to readers). You must implement at least one of the following alternatives:

- a. Publish and distribute in printed form a newsletter, a pamphlet or a flyer containing information consistent with this BMP.
- b. Publish educational and informational items including links to DEP's and EPA's stormwater websites on your municipal website.

Measurable Goals: For new permittees, stormwater educational and informational items shall be produced and published in print and/or on the Internet within the first year of permit coverage. In subsequent years (and for renewal permittees), the list of items published and the content in these items shall be reviewed, updated, and maintained annually. Your publications shall contain stormwater educational information that addresses one (1) or more of the six (6) MCMs.

Recommendation: There are numerous example educational resources available from the sources listed at: www.depweb.state.pa.us, keyword: Stormwater. Periodically you should review and consider distributing or republishing stormwater information available from DEP, EPA, and other sources. Your stormwater materials can be published either in print format or electronically on the internet. Permittees can partner with other MS4 permittees to meet this BMP.

BMP #4: Distribute stormwater educational materials and/or information to the target audiences using a variety of distribution methods, including, but not limited to: displays, posters, signs, pamphlets, booklets, brochures, radio, local cable TV, newspaper articles, other advertisements (e.g., at bus and train stops/stations), bill stuffers, posters, presentations, conferences, meetings, fact sheets, giveaways, or storm drain stenciling.

Measurable Goal: All permittees shall select and utilize at least two (2) distribution methods in each permit year. These are in addition to the newsletter and website provisions of BMPs #3 and #4.

Recommendations: Abundant educational resources and examples are available from numerous sources (see www.depweb.state.pa.us, keyword: Stormwater) that can be adapted for use, including the DEP brochure titled "When It Rains, It Drains." Since school districts frequently cross MS4 boundaries, seek out watershed groups or other qualified service providers to help assist and/or implement school education on behalf of the group of permittees. Permittees also can partner with other permittees to jointly arrange for school education.

MCM #2: Public Involvement / Participation

The following are the requirements for MCM #2 that are included in the Federal Regulations:

- *Comply with applicable state and local public notice requirements when implementing a public involvement / participation program (40 CFR Part 122.34(b)(2)(i)).*

The following requirements, Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved by MS4 permittees in Pennsylvania:

BMP #1: Develop, implement and maintain a written Public Involvement and Participation Program (PIPP), which describes various types of possible participation activities and describes methods of encouraging the public's involvement and of soliciting the public's input.

Measurable Goal: New permittee's PIPP shall be developed and implemented during the first year of coverage under this permit. All permittees shall re-evaluate the PIPP each permit year and revise as needed. Your PIPP shall include, but not be limited to:

- a. Opportunities for the public to participate in the decision-making processes associated with the development, implementation, and update of programs and activities related to this permit.
- b. Methods of routine communication to groups such as watershed associations, environmental advisory committees, and other environmental organizations that operate within proximity to the permittee's regulated small MS4s or their receiving waters.
- c. Making your periodic reports available to the public on your website, at your municipal offices, or by US Mail upon request.

BMP #2: Prior to adoption of any ordinance required by this permit, provide adequate public notice and opportunities for public review, input, and feedback.

Measurable Goal: Advertise any proposed MS4 Stormwater Management Ordinance, provide opportunities for public comment, evaluate any public input and feedback, and document the comments received and the municipality's response.

BMP #3: Regularly solicit public involvement and participation from the target audience groups. This should include an effort to solicit public reporting of suspected illicit discharges. Assist the public in their efforts to help implement your SWMP. Conduct public meetings to discuss the on-going implementation of your SWMP.

Measurable Goals: Conduct at least one (1) public meeting per year to solicit public involvement and participation from target audience groups. The public should be given reasonable notice through the usual outlets a reasonable period in advance of each meeting. During the meetings, you should present a summary of your progress, activities, and accomplishments with implementation of your SWMP, and you should provide opportunities for the public to provide feedback and input. Your presentation can be made at specific MS4 meetings or during any other public meeting. Under this MCM, you should document and report instances of cooperation and participation in your activities; presentations you made to local watershed organizations and conservation organizations; and similar instances of participation or coordination with organizations in your community. You also should document and report activities in which members of the public assisted or participated in your meetings and in the implementation of your SWMP, including education activities or organized implementation efforts such as cleanups, monitoring, storm-drain stenciling, or others.

MCM #3: Illicit Discharge Detection and Elimination (IDD&E)

The following are the requirements for MCM #3 that are included in the Federal Regulations:

- *Develop, implement, and enforce a program to detect and eliminate illicit discharges into the MS4 (40 CFR Part 122.34(b)(3)(i)).*
- *Develop, if not already completed, a storm sewer system map, showing the location of all outfalls and the names and locations of all surface waters of the Commonwealth that receive discharges from those outfalls (40 CFR Part 122.34(b)(3)(ii)(A)).*
- *To the extent allowable under State or local law, effectively prohibit, through ordinance, or other regulatory mechanism, non-stormwater discharges into your storm sewer system and implement appropriate enforcement procedures and actions (40 CFR Part 122.34(b)(3)(ii)(B)).*
- *Develop and implement a plan to detect and address non-stormwater discharges, including illegal dumping, to your system (40 CFR Part 122.34(b)(3)(ii)(C)).*
- *Inform public employees, businesses, and the general public of hazards associated with illegal discharges and improper disposal of waste (40 CFR Part 122.34(b)(3)(ii)(D)).*

The following requirements, Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:

BMP #1: You shall develop and implement a written program for the detection, elimination, and prevention of illicit discharges into your regulated MS4s. Your program shall include dry weather field screening of outfalls for non-stormwater flows and sampling of dry weather discharges for selected chemical and biological parameters. Test results shall be used as indicators of possible discharge sources. The program shall include the following:

- a. Procedures for identifying priority areas. These are areas with a higher likelihood of illicit discharges, illicit connections, or illegal dumping. Priority areas may include areas with older infrastructure, a concentration of high-risk activities, or past history of water pollution problems.
- b. Procedures for screening outfalls in priority areas during varying seasonal and meteorological conditions.
- c. Procedures for identifying the source of an illicit discharge when a contaminated flow is detected at a regulated small MS4 outfall.
- d. Procedures for eliminating an illicit discharge.
- e. Procedures for assessing the potential for illicit discharges caused by the interaction of sewage disposal systems (e.g., on-lot septic systems, sanitary piping) with storm-drain systems.
- f. Mechanisms for gaining access to private property to inspect outfalls (e.g., land easements, consent agreements, search warrants).
- g. Procedures for program documentation, evaluation and assessment.

Measurable Goal: For new permittees, the IDD&E program shall be developed during the first year of coverage under this permit and shall be implemented and evaluated each year thereafter. For renewal permittees, the existing IDD&E program shall continue to be implemented and evaluated annually. Records shall be kept of all outfall inspections, flows observed, results of field screening and testing, and other follow-up investigation and corrective action work performed under this program.

Recommendation: For information on development and implementation of an IDD&E program, refer to: *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* (CWP, October 2004). <http://cfpub.epa.gov/NPDES/stormwater/idde.cfm>

BMP #2: Develop and maintain a map of your regulated small MS4. The map must also show the location of all outfalls and the locations and names of all surface waters of the Commonwealth (e.g., creek, stream, pond, lake, basin, swale, channel) that receive discharges from those outfalls.

Measurable Goals: For new permittees, develop the map(s) of your regulated small municipal separate storm sewer systems (MS4) and the information on all outfalls from your regulated small MS4 by the end of the fourth (4th) year of

permit coverage. For renewal permittees, the existing map(s) of your regulated small MS4 shall be updated and maintained as necessary during each year of coverage under the permit.

BMP #3: In conjunction with the map(s) created under BMP #2 (either on the same map or on a different map), new permittees shall show, and renewal permittees shall update, the entire storm sewer collection system, including roads, inlets, piping, swales, catch basins, channels, basins, and any other features of the permittee's storm sewer system, including municipal boundaries and/or watershed boundaries.

Measurable Goal: For new permittees, develop the map(s) by the end of the fourth (4th) year of coverage under the permit and update and maintain the map(s) as necessary each year of permit coverage thereafter. For renewal permittees, update and maintain the map(s) as necessary during each year of permit coverage.

BMP #4: Following the IDD&E program created pursuant to BMP #1, the permittee shall conduct outfall field screening, identify the source of any illicit discharges, and remove or correct any illicit discharges using procedures developed under BMP #1.

Measurable Goals: For new permittees, all of the identified regulated small MS4 outfalls shall be screened during Dry Weather on at least two (2) different occasions during the permit coverage term. In each permit coverage year, at least forty percent (40%) of the total number of outfalls should be screened.

For renewal permittees, each of the identified regulated small MS4 outfalls shall be screened at least once during each permit coverage term. For areas where past problems have been reported or known sources of dry weather flows occur on a continual basis, outfalls shall be screened annually.

For each outfall, if the screening reveals dry weather flow, the discharge from the outfall and the area around the outfall shall be inspected visually for color, turbidity, sheen, floating or submerged solids; for adverse effects on plants or animals in proximity to the outfall; and for odor. If the outfall produces any odor, or if the visual inspection shows any indication that the discharge may contain pollutants, then samples of the discharge shall be collected for field and / or lab testing of selected chemical and biological parameters as part of a process to determine if the dry weather flow is illicit. Common parameters include: pH; conductivity; E. Coli bacteria; fecal coliform bacteria; metals; suspended solids; dissolved solids; oils; ammonia; surfactants; chlorine; and fluoride.

You shall implement the IDD&E plan that you developed to address any non-storm water discharges. If an outfall does not have any dry weather flow, then sampling and testing are not needed.

For all permittees, outfall inspections need to be prioritized according to the perceived chance of illicit discharges within the outfall's contributing drainage area. Observations of each outfall shall be recorded each time an outfall is screened, regardless of the presence of dry weather flow. Proper quality assurance and quality control procedures shall be followed when collecting, transporting or analyzing water samples. All outfall inspection information shall be recorded on the Outfall Reconnaissance Inventory/Sample Collection field sheet (attached below) excerpted from the *Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessments* (CWP, October 2004). Adequate written documentation shall be maintained to justify a determination that an outfall flow is not illicit. If an outfall flow is illicit, the actions taken to identify and eliminate the illicit flow also shall be documented.

The results of outfall inspections and actions taken to remove or correct illicit discharges shall be summarized in periodic reports.

Recommendation: All permittees should consider conducting some outfall screenings during varying seasonal and meteorological conditions since it is possible for illicit discharges/connections to occur during different times of the year and during or just after rain events. Seasonal outfall screenings conducted during periods of both low and high groundwater conditions can be beneficial in identifying illicit discharges that can occur during these times.

BMP #5: Enact a stormwater management ordinance to implement and enforce a stormwater management program (SWMP) that includes prohibition of non-stormwater discharges to the regulated small MS4.

Measurable Goal - 1: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance from an Act 167 Plan approved by the Department in 2005 or later; one (1) of the MS4 Stormwater Management Ordinances; or an ordinance that satisfies all applicable requirements in a completed and signed MS4 Stormwater Management Ordinance Checklist.

Renewal permittees must continue to maintain, update, implement, and enforce a Stormwater Management Ordinance that satisfies all applicable requirements.

Measurable Goal - 2: New permittees shall submit a letter signed by a municipal official, municipal engineer, or the municipal solicitor as an attachment to their first year report certifying the enactment of an ordinance that meets all applicable requirements of this permit. Renewal permittees shall update their existing ordinance, if necessary, and submit documentation of completion to the DEP.

BMP #6: Provide educational outreach to public employees, business owners and employees, property owners, the general public and elected officials (i.e., target audiences) about the program to detect and eliminate illicit discharges.

Educational outreach should include:

- a. Distribution of brochures and guidance for target audiences including schools;
- b. Programs to encourage and facilitate public reporting of illicit discharges;
- c. Organizing volunteers to locate and visually inspect outfalls and to stencil storm drains; and
- d. Implement and encourage recycling programs for common wastes such as motor oil, antifreeze and pesticides.

Measurable Goals: During each year of permit coverage, appropriate educational information concerning illicit discharges shall be distributed to the target audiences using methods outlined under MCM #1. If not already established, set up and promote a stormwater pollution reporting mechanism (e.g., a complaint line with message recording) by the end of the first year of permit coverage for the public to use to notify you of illicit discharges, illegal dumping or outfall pollution. Respond to all complaints in a timely and appropriate manner. Document all responses, include the action taken, the time required to take the action, whether the complaint was resolved successfully.

MCM #4: Construction Site Stormwater Runoff Control

If you checked Option MCM #4.A in Section E(4)-(5) of the NOI, then you are relying on DEP's statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under this MCM #4 and under BMPs #1 through #3 of MCM #5; therefore, all requirements are met for both this MCM #4 and BMPs #1 through #3 of MCM #5.

If you checked Option MCM #4.B in Section E(4)-(5) of the NOI, you are not relying on DEP's QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy this MCM #4 and BMPs #1 through #3 of MCM5; therefore, you must implement and achieve all of the requirements in this MCM #4 and all of the requirements in MCM #5, including the Best Management Practices (BMPs) and the Measurable Goals.

The following are the requirements for MCM #4 that are included in the Federal Regulations:

- *Develop, implement, and enforce a program to reduce pollutants in any stormwater runoff to your small MS4 from construction activities that result in a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale that equals one acre or more (40 CFR Part 122.34(b)(4)(i)).*
- *Develop and implement an ordinance or other regulatory mechanism to require erosion and sediment controls, as well as sanctions to ensure compliance, to the extent allowable under State or local law (40 CFR Part 122.34(b)(4)(ii)(A)).*
- *Require construction site operators to implement appropriate erosion and sediment control best management practices (BMPs) (40 CFR Part 122.34(b)(4)(ii)(B)).*
- *Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality. These wastes can include discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste (40 CFR Part 122.34(b)(4)(ii)(C)).*
- *Develop and implement procedures for site plan review which incorporate consideration of potential water quality impacts (40 CFR Part 122.34(b)(4)(ii)(D)).*
- *Develop and implement procedures for receipt and consideration of information submitted by the public (40 CFR Part 122.34(b)(4)(ii)(E)).*
- *Develop and implement procedures for site inspections and enforcement of control measures (40 CFR Part 122.34(b)(4)(ii)(F)).*

Under 25 Pa. Code, Chapter 102 of Department regulations issued under the authority of the Pennsylvania Clean Streams Law, the permittee (a municipality or a county) may not issue a building or other permit or final approval to those proposing or conducting earth disturbance activities requiring a DEP permit until the DEP has issued the permit, or DEP or a delegated county conservation district (CCD) has approved coverage under an NPDES Permit for Stormwater Discharges Associated With Construction Activities.

BMP #1: Develop your program consisting of all procedures necessary to comply with the requirements of this MCM. Your program shall provide for construction stormwater permitting, construction inspection, and enforcement of installation and maintenance of the necessary Erosion and Sedimentation (E&S) control measures. Your program shall describe clearly how your program will be coordinated with DEP's NPDES Construction Stormwater Permitting program.

Measurable Goal - 1: For new permittees, the written program for this MCM shall be developed during the first year of permit coverage; nevertheless, you are responsible for implementation of this MCM during entire term of this permit, including the time you are developing your program.

For all permittees, your program shall be reviewed and updated during each year of permit coverage. The purpose of the written program is to establish clear roles and responsibilities for the implementation of the MCM #4 requirements. An agreement between the permittee, the CCD, and any other resources to be used by the permittee that clearly defines roles for each entity is recommended. If an agreement is made, you shall place and keep a written copy in your file, consistent with the Retention of Records requirements in this Permit. Please note that in accordance with

Section A.2.h in Part A of the Authorization to Discharge, as the permittee you are responsible to ensure that implementation of all requirements under this Permit are fulfilled.

Recommendation: Develop a tracking system that summarizes your actions to comply with this BMP (e.g., number of active construction sites, inspections, enforcement actions, etc.) and which can be described in a summary report format.

Measurable Goal - 2: If any portion of your regulated small MS4 is located in, or discharging to, Waters of the Commonwealth, including wetlands, that have an existing or designated use that qualifies as either "High Quality Waters" or "Exceptional Value Waters" under 25 Pa. Code Chapter 93 of DEP's regulations, then your program for this MCM, as written and as implemented, must ensure that stormwater discharges from new development or redevelopment into that portion of your regulated small MS4 will not cause or contribute to degradation of the quality of the receiving waters.

Recommendation: Develop maps, design guidance, application review guidance, inspection procedures, enforcement procedures, and a tracking system to ensure that this requirement is met.

BMP #2: The permittee shall enact, implement, and enforce an ordinance to require the implementation of erosion and sediment control BMPs, as well as sanctions to ensure compliance.

Measurable Goal - 1: Within the first year of coverage under the permit, new permittees shall enact and implement an ordinance that meets all applicable requirements of this permit.

Measurable Goal - 2: Permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment and implementation of a stormwater management ordinance that meets all requirements of this permit

BMP #3: Develop and implement requirements for construction site operators to control waste at the construction site that may cause adverse impacts to water quality. While sediment is the most common pollutant of concern for MCM #4, there are other types of pollutants that also can be a concern and the intent of this BMP is to address these other types of pollutants, such as, but not limited to, discarded building materials, washout from concrete trucks, chemicals, litter, and sanitary waste.

Measurable Goal: New permittees shall establish requirements to address this BMP by the end of the first year of permit coverage. Renewal permittees shall continue to implement existing requirements and update as necessary. This could be implemented by written municipal ordinance/code provisions, by standard notes on the site plans, by any other written format that accomplishes the objectives of this BMP, or by any combination of these measures. The goal of this BMP shall be communicated to construction site operators during pre-construction meetings. This BMP shall be implemented during each year of the MS4 permit. Permittees must prepare and maintain records of site inspections, including dates and results and you must maintain these records in accordance with the Retention of Records requirements in this Permit.

Recommendation: Verification of proper waste handling procedures can be determined at the same time that site E&S control inspections are conducted under BMP #1, described above.

BMP #4: Develop and implement procedures for the receipt and consideration of public inquiries, concerns, and information submitted by the public (to the permittee) regarding local construction activities. The permittee shall demonstrate acknowledgement and consideration of the information submitted, whether submitted verbally or in writing.

Measurable Goal: Permittees shall establish and implement a tracking system to keep a record of any submitted public information as well as your response, actions, and results. This BMP shall be implemented during each year of coverage under this permit and information should be submitted with the each periodic report.

Recommendation: Develop a tracking system that can keep a record of information submitted by the public as well as your responses to such public inquiries. The tracking system should be capable of producing periodic summary reports.

MCM #5: Post-Construction Stormwater Management (PCSM) in New and Re-Development Activities

If you checked Option MCM #4.A in Section E(4)-(5) of the NOI, then you are relying on DEP's statewide QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy all requirements under BMPs #1 through #3 of this MCM #5; therefore, all requirements are met for BMPs #1 through #3 of this MCM #5 and for all requirements under MCM #4.

If you checked Option MCM #4.B in Section E(4)-(5) of the NOI, you are not relying on DEP's QLP for issuing NPDES Permits for Stormwater Discharges Associated with Construction Activities to satisfy the requirements in BMPs #1 through #3 of this MCM #5; therefore, you must implement and achieve all of the requirements in this MCM #5 and all of the requirements in MCM #4, including the Best Management Practices (BMPs) and the Measurable Goals.

The following are the requirements for MCM #5 that are included in the Federal Regulations:

- *Develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into your small MS4. Your program shall ensure that controls are in place that would prevent or minimize water quality impacts (40 CFR Part 122.34(b)(5)(i)).*
- *Develop and implement strategies which include a combination of structural and/or non-structural best management practices (BMPs) appropriate for your community (40 CFR Part 122.34(b)(5)(ii)(A)).*
- *Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State, Tribal or local law (40 CFR Part 122.34(b)(5)(ii)(B)).*
- *Ensure adequate long-term operation and maintenance of BMPs (40 CFR Part 122.34(b)(5)(ii)(C)).*

The following requirements, Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:

Note: Please refer to the definitions section of this permit for clarification of terms used in this MCM. In the following language, the term "**BMPs**" refers to **post-construction stormwater management controls and Best Management Practices**.

BMP #1: Develop a written procedure that describes how the permittee shall address all required components of this MCM. Guidance can be found in the Pennsylvania Stormwater Best Management Practices Manual. This plan shall include the following components:

- a. Minimum requirements for use of structural and/or non-structural BMPs in plans for development and redevelopment;
- b. Criteria for selecting and standards for sizing stormwater BMPs;
- c. Implementation of an inspection program to ensure that BMPs are properly installed;

Measurable Goal: The written procedure shall be developed by the end of the first year of permit coverage and be reviewed and updated every permit year thereafter, as needed. The intent of BMP #1 is for the permittee to describe how the listed tasks will be accomplished.

BMP #2: Require the implementation of a combination of structural and/or non-structural BMPs that are appropriate to the local community, that minimize water quality impacts, and that are designed to maintain pre-development runoff conditions. This requirement can be met by ensuring that the selected BMPs comply with the municipal Stormwater Management Ordinance that meets the requirements of this permit.

Measurable Goal: All qualifying development or redevelopment projects shall be reviewed to ensure that their post-construction stormwater management plans and selected BMPs conform to the applicable requirements. A tracking system (e.g., database, spreadsheet, or written list) shall be maintained to record qualifying projects and their associated BMPs. In your records, you shall note if there are no qualifying projects in a calendar year.

BMP #3: Ensure that controls are installed that shall prevent or minimize water quality impacts.

Measurable Goal: All qualifying development or redevelopment projects shall be inspected during the construction phase to ensure proper installation of the approved structural PCSM BMPs. A tracking system (e.g., database, spreadsheet, or written list) shall be implemented to track the inspections conducted and to track the results of the inspections (e.g., BMPs were, or were not, installed properly). Permittees not relying on DEP's statewide QLP to satisfy requirements under this BMP shall summarize construction inspections and results in periodic reports. See BMP #6 for requirements related to post-construction inspection and tracking of PCSM BMPs to ensure that the operation and maintenance plan is being implemented.

BMP #4: The permittee shall enact, implement, and enforce an ordinance or other regulatory mechanism to address post-construction stormwater runoff from new development and redevelopment projects, as well as sanctions and penalties associated with non-compliance, to the extent allowable under State or local law.

Measurable Goal - 1: Within the first year of coverage under this permit, new permittees shall enact and implement a stormwater management ordinance that meets the requirements of this permit.

Measurable Goal - 2: All permittees shall submit a letter signed by a municipal official, municipal engineer or the municipal solicitor as an attachment to their first periodic report certifying the enactment of a stormwater management ordinance that meets the requirements of this permit.

BMP #5: Develop and implement measures to encourage and expand the use of Low Impact Development (LID) in new and redevelopment. Measures also should be included to encourage retrofitting LID into existing development. DEP's Pennsylvania Stormwater Best Management Practices Manual provides guidance on implementing LID practices.

Measurable Goal - 1: In your inventory of development and redevelopment projects authorized for construction since March 10, 2003, that discharge stormwater to your regulated small MS4s, indicate which projects incorporated LID practices and for each project list and track the BMPs that were used.

Measurable Goal - 2: Enact ordinances consistent with LID practices and repeal sections of ordinances that conflict with LID practices. Progress with enacting and updating your ordinances to enable the use of LID practices shall be summarized in the periodic reports.

Recommendations: The EPA website provides publications on LID, including Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices Publication Number EPA 841-F-07-006, December 2007 at <http://www.epa.gov/owow/nps/lid/costs07/>. The Pennsylvania Standards for Residential Site Development, Pennsylvania Housing Research/Resource Center, The Pennsylvania State University, April 2007 at <http://www.engr.psu.edu/phrc/>.

BMP #6: Ensure adequate Operation and Maintenance (O&M) of all post-construction stormwater management BMPs installed at all qualifying development or redevelopment projects (including those owned or operated by the permittee).

Measurable Goal - 1: Within the first year of coverage under this permit, new permittees shall develop and implement a written inspection program to ensure that stormwater BMPs are properly operated and maintained. The program shall include sanctions and penalties for non-compliance. All permittees shall review and update the inspection program annually and shall continue to implement this BMP.

Measurable Goal - 2: An inventory of PCSM BMPs shall be developed by permittees and shall be continually updated during the term of coverage under the permit as development projects are reviewed, approved, and constructed. This inventory shall include all PCSM BMPs installed since March 10, 2003 that discharge directly or indirectly to your regulated small MS4s. The inventory also should include PCSM BMPs discharging to the regulated small MS4 system that may cause or contribute to violation of water quality standard. The inventory shall include:

- a. All PCSM BMPs that were installed to meet requirements in NPDES Permits for Stormwater Discharges Associated with Construction Activities approved since March 10, 2003.

- b. The exact location of the PCSM BMP (e.g., street address);
- c. Information (e.g., name, address, phone number(s)) for BMP owner and entity responsible for BMP Operation and Maintenance (O&M), if different from BMP owner;
- d. The type of BMP and the year it was installed;
- e. Maintenance required for the BMP type according to the Pennsylvania Stormwater BMP Manual or other manuals and resources;
- f. The actual inspection/maintenance activities for each BMP;
- g. An assessment by the permittee if proper occurred during the year and if not, what actions the permittee has taken, or shall take, to address compliance with O&M requirements

Recommendation: Develop a single system that supports recording and tracking the information specified in BMPs #3, #4 and #5.

Measurable Goal - 3: If any portion of your regulated small MS4 is located in, or discharging to, Waters of the Commonwealth, including wetlands, that have an existing or designated use that qualifies as either “High Quality Waters” or “Exceptional Value Waters” under 25 Pa. Code Chapter 93 of DEP’s regulations, then your inspection program for this MCM, as written and as implemented, must ensure that stormwater discharges from new development or redevelopment into that portion of your regulated small MS4 will not cause or contribute to degradation of the quality of the receiving waters.

Recommendation: Develop maps, inspection procedures, enforcement procedures, and a tracking system to ensure that this requirement is met.

MCM #6: Pollution Prevention/Good Housekeeping for Municipal Operations

The following are the requirements for MCM #6 that are included in the Federal Regulations:

- *Develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations (40 CFR Part 122.34(b)(6)(i)).*
- *Provide employee training to prevent and reduce stormwater pollution from activities such as parks and open space maintenance, fleet and building maintenance, new construction and land disturbances, and stormwater system maintenance (40 CFR Part 122.34(b)(6)(i)).*

The following requirements, Best Management Practices (BMPs) and Measurable Goals are to be implemented and achieved:

BMP #1: Identify and document all facilities and activities that are owned or operated by the permittee and have the potential for generating stormwater runoff to the regulated small MS4. This includes activities conducted by contractors for the permittee. Activities may include the following: street sweeping; snow removal/deicing; inlet/outfall cleaning; lawn/grounds care; general storm sewer system inspections and maintenance/repairs; park and open space maintenance; municipal building maintenance; new construction and land disturbances; right-of-way maintenance; vehicle operation, fueling, washing and maintenance; and material transfer operations, including leaf/yard debris pickup and disposal procedures. Facilities can include streets; roads; highways; parking lots and other large paved surfaces; maintenance and storage yards; waste transfer stations; parks; fleet or maintenance shops; wastewater treatment plants; stormwater conveyances (open and closed pipe); riparian buffers; and stormwater storage or treatment units (e.g., basins, infiltration/filtering structures, constructed wetlands, etc.).

Measurable Goal: By the end of the first year of permit coverage, new permittees shall identify and document all types of municipal operations, facilities and activities and land uses that may contribute to stormwater runoff within areas of municipal operations that discharge to the regulated small MS4. Renewal permittees should have completed this list during the previous permit term. For all permittees, this information shall be reviewed and updated each year of permit coverage, as needed. Part of this effort shall include maintaining a basic inventory of various municipal operations and facilities.

BMP #2: Develop, implement and maintain a written operation and maintenance (O&M) program for all municipal operations and facilities that could contribute to the discharge of pollutants from the regulated small MS4s, as identified under BMP #1. This program (or programs) shall address municipally owned stormwater collection or conveyance systems, but could include other areas (as identified under BMP #1). The O&M program(s) should stress pollution prevention and good housekeeping measures, contain site-specific information, and address the following areas:

- a. Management practices, policies, procedures, etc. shall be developed and implemented to reduce or prevent the discharge of pollutants to your regulated small MS4s. You should consider eliminating maintenance-area discharges from floor drains and other drains if they have the potential to discharge to storm sewers.
- b. Maintenance activities, maintenance schedules, and inspection procedures to reduce the potential for pollutants to reach your regulated small MS4s. You also should review your procedures for maintaining your stormwater BMPs.
- c. Controls for reducing or eliminating the discharge of pollutants from streets, roads, highways, municipal parking lots, maintenance and storage yards, waste transfer stations, fleet or maintenance shops with outdoor storage areas, and salt / sand (anti-skid) storage locations and snow disposal areas.
- d. Procedures for the proper disposal of waste removed from your regulated small MS4s and your municipal operations, including dredge spoil, accumulated sediments, trash, household hazardous waste, used motor oil, and other debris.

Measurable Goal: During the first year of permit coverage, new permittees shall develop and implement a written O&M program that complies with BMPs #1 and #2. Renewal permittees shall continue to implement their existing program. All permittees shall review the O&M program annually, edit as necessary, and continue to implement during every year of permit coverage.

Guidance: Permittees may develop a single all encompassing written O&M program or they may develop separate programs for their stormwater system and for their vehicles.

BMP #3: Develop and implement an employee training program that addresses appropriate topics to further the goal of preventing or reducing the discharge of pollutants from municipal operations to your regulated small MS4s. The program may be developed and implemented using guidance and training materials that are available from federal, state or local agencies, or other organizations. Any municipal employee or contractor shall receive training. This could include public works staff, building / zoning / code enforcement staff, engineering staff (on-site and contracted), administrative staff, elected officials, police and fire responders, volunteers, and contracted personnel. Training topics should include operation, inspection, maintenance and repair activities associated with any of the municipal operations / facilities identified under BMP #1. Training should cover all relevant parts of the permittee's overall stormwater management program that could affect municipal operations, such as illicit discharge detection and elimination, construction sites, and ordinance requirements.

Measurable Goal - 1: During the first year of permit coverage, new permittees shall develop and implement a training program that identifies the training topics that will be covered, and what training methods and materials will be used. Renewal permittees shall continue to operate under their existing program. All permittees shall review the training program annually, edit it as necessary, and continue to implement it during every year of permit coverage.

Measurable Goal - 2: Your employee training shall occur at least annually (i.e., during each permit coverage year) and shall be fully documented in writing and reported in your periodic reports. Documentation shall include the date(s) of the training, the names of attendees, the topics covered, and the training presenter(s).

Guidance: The training requirements of this BMP can be met in various ways. Training can be:

- a. formal or informal;
- b. conducted on-site or off-site;
- c. conducted on-the-job or during dedicated training periods;
- d. conducted one-on-one or in a group setting (including with staff from other MS4s);
- e. conducted by municipal staff or consultants/volunteers;
- f. conducted via oral presentations/instructions and/or via written materials (e.g., SOP's, guidance manuals, tests).

Recommendation: For efficiency and cost savings, you may wish to arrange and schedule joint training events with other nearby operators of regulated small MS4s.

OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Outfall Reconnaissance Inventory Field Sheet

Section 4: Physical Indicators for Flowing Outfalls Only

Are Any Physical Indicators Present in the flow? Yes No *(If No, Skip to Section 5)*

INDICATOR	CHECK IF Present	DESCRIPTION	RELATIVE SEVERITY INDEX (1-3)		
			1 - Faint	2 - Easily detected	3 - Noticeable from a distance
Odor	<input type="checkbox"/>	<input type="checkbox"/> Sewage <input type="checkbox"/> Rancid/sour <input type="checkbox"/> Petroleum/gas <input type="checkbox"/> Sulfide <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Color	<input type="checkbox"/>	<input type="checkbox"/> Clear <input type="checkbox"/> Brown <input type="checkbox"/> Gray <input type="checkbox"/> Yellow <input type="checkbox"/> Green <input type="checkbox"/> Orange <input type="checkbox"/> Red <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Turbidity	<input type="checkbox"/>	See severity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Floatables -Does Not Include Trash!!	<input type="checkbox"/>	<input type="checkbox"/> Sewage (Toilet Paper, etc.) <input type="checkbox"/> Suds <input type="checkbox"/> Petroleum (oil sheen) <input type="checkbox"/> Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section 5: Physical Indicators for Both Flowing and Non-Flowing Outfalls

Are physical indicators that are not related to flow present? Yes No *(If No, Skip to Section 6)*

INDICATOR	CHECK IF Present	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/>	<input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion	
Deposits/Strains	<input type="checkbox"/>	<input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other:	
Abnormal Vegetation	<input type="checkbox"/>	<input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor pool quality	<input type="checkbox"/>	<input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other:	
Pipe benthic growth	<input type="checkbox"/>	<input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other:	

Section 6: Overall Outfall Characterization

Unlikely Potential (presence of two or more indicators) Suspect (one or more indicators with a severity of 3) Obvious

Section 7: Data Collection

1. Sample for the lab?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2. If yes, collected from:	<input type="checkbox"/> Flow <input type="checkbox"/> Pool
3. Intermittent flow trap set?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> OBM <input type="checkbox"/> Caulk dam

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

