

Municipality/Organization: Town of Stoughton, Massachusetts

EPA NPDES Permit Number: MAR041063

MassDEP Transmittal Number: W-035130

Annual Report Number Year 10
& Reporting Period: April 1, 2012 – March 31, 2013

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

Contact Person: Benjamin Fehan, P.E. **Title:** Town Engineer

Telephone #: 781.232.9263 **Email:** bfehan@stoughton-ma.gov

Mailing Address: 10 Pearl Street, Stoughton, MA 02072

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 gather and evaluate 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.

Signature:



Printed Name: Benjamin Fehan

Title: Town Engineer

Date: April 26, 2013

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Printed Name: Benjamin Fehan

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TOWN OF STOUGHTON, MASSACHUSETTS

ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Part II. Self-Assessment

The Town has been working diligently for the last several years to continue mapping the storm water infrastructure in Town. The Town has allocated \$100,000.00 (Hundred Thousand dollars) for complying with NPDES MS4 Program. The money that has been allocated will be used this to locate any missing drainage structures and then obtain pipe connectivity from the inlet to the outfall. The end result will be an actual storm water network map depicting all catch basins, manholes, BMP's, and outfalls. All data will be incorporated into our GIS database. These maps will aid the Town in locating and controlling any future illicit discharges. Additionally, these maps will aid the Town in the hydrologic and hydraulic modeling of our storm water network; therefore, understanding the hydraulic effectiveness of the drainage system under storm events.

Among other efforts, the Town of Stoughton has continued to focus efforts on the control measures that were slated for the entire permit term that include enforcing the Storm Water By-Law, enforcing the Illicit Discharge By-Law, performing continuous construction inspections, enforcing the submittal of Stormwater Pollution Prevention Plans for all projects greater than 1 acre in size, and a comprehensive review of all construction documents. The Town continues to review single lot construction (projects less than 1 acre) that require the use of Best Management Practices and Erosion Controls under certain circumstances, perform Good Housekeeping Best Management Practices as part of ongoing operation and maintenance of facilities, roadways, storm drains and open spaces. The Town regularly monitors, cleans and inspects the catch basins and roadway surfaces in Town. Additionally, many new culverts and drainage improvement have been constructed within the Town.

Town of Stoughton has agreed to partnership with the Neponset River Watershed Association (NepRWA) as the Town moves forward in compliance with the new MS4 permit. The Town is working with NepRWA seeking ways and means to comply with the permit requirement by identifying new sites for installing BMP's, applying for grants to construct new BMP's, and creating new updated educational and outreach material for different audience

Household Hazardous Waste Days were held. Public was strongly educated and involved in many committees involving maintaining and protecting wetland areas and protecting the Earth. Furthermore, the Town has chosen to participate once again in the Septic Betterment Program which helps to provide funding to property owners in need of repairing a failed septic system. Since the program was implemented, the Town has seen a dramatic increase in the number of septic repair applications.

The remaining portions of this report list many more Best Management Practices conducted by the Town of Stoughton. Over the permit term, Stoughton has completed or progressed on many of our goals. The Town acknowledges that there are many more goals to accomplish and will continue to meet these goals.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
1.1	Classroom Education	Engineering Dept. & Stormwater Tech Committee	1. Stormwater presentation to Middle and High Schools 2. Provide Schools with Stormwater materials.	Permit Term Ongoing Ongoing	Presentations were made to Middle School during Years 2 and 3. In Year 5, the Engineering Department provided schools with stormwater materials to incorporate with materials. In Year 8, Engineering Department conducted one day seminar at the High School Science Class. Continue to perform presentations and provide school materials. Continue to improve and enhance materials.
1.2	Prepare Stormwater Video	Engineering Dept. & Stormwater Tech Committee	1. Air "After the Storm" video on local access television. 2. Present video in Local TV	Years 4-5 Year 9	Two appearances in stormwater forums (summer 2007, one in fall 2007); "After the Storm" aired on local cable access television in spring 2008. Present video on television.
1.3	Stencil specified storm drains	Public Works Dept.	Identified individual watersheds and stencil catch basins	Year 2-4 Year 6 Year 10	Catch Basins Stenciled (Year 2-4); Complete. Stencils were checked and re-painted as necessary during Year 6. All catch basins' stencil condition were evaluated to determine the stencil condition and need.
1.4	Create Stormwater Fliers/ Posters/ Pamphlets	Engineering Dept. & Stormwater Tech Committee	Install stormwater posters and brochures in public buildings	Year 3 – Ongoing Year 10-11	1. Stormwater posters continue to be displayed in Town Hall. 2. Brochures are available at Town Hall, Library, PWD. 3. Working with NepRWA in creating new outreach material written specifically for different types of audience per the new draft permit.
1.5	Educational signage at high-use recreational areas	Conservation Commission, Recreation Dept., Public Works Dept.	Install signage at Town beach	Year 8	Install signage at Town beach. Maintain signs as needed.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

1.6	"No-Dumping" Signs	Conservation Commission, Public works Dept.	Installing "No-Dumping" Signs in all major watershed areas	Year 8-9	Signs were installed in all major watershed areas. Fixing and reinstalling damaged signs.
1.7	Earth Day	Conservation Commission, Public Works Dept.	Generate public awareness to prevent non-point source pollution in the watershed and water conservation	Year 6- Ongoing	Educational presentations by qualified environmental professional. Fliers and brochures provided by DEP were handed out. Mass division of fish and wild life provided information on protecting vernal resources areas.
1.8	Collecting and storing of roof generated runoff for domestic irrigation (Rain Barrel)	Conservation Commission	Educating public to collect and store roof runoff for on site irrigation and ground water replenishment.	Year 8–9 Ongoing	Educate public of the benefit for collecting and storing roof generated runoff for domestic irrigation. Sold about 100 units. Continue to sell rain barrels and educate public.
1.9	Compost Generator	Conservation Commission	Reduce the volume of solid waste by generating compost to improve vegetated cover in yards in the watershed to reduce sediment / nutrient deposition and pollution of surface water bodies and streams	Year 8-9	Educate public of the compost generator and benefits of having non chemical fertilization for yards that will improve vegetation and eliminate pollution to the ground water. Sold about 50 units.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
2.1	Create Stormwater Committee	Selectmen	Creation of Stormwater	Year 1-2	Created Stormwater Committee consisting of members of PWD, Engineering and Conservation Commission Department. Major focus to identify stormwater related problem areas in Town and develop game plan for correcting problem and to comply with EPA requirements.
2.2	Review NOI	Technical Committee	Stormwater goals prioritized and published	Year 1-2	Technical committee Mission Statement; Complete.
2.3	Stormwater Committee creates Technical Committee	Stormwater Committee	Technical Committee meetings	Year 2 Year 4	Create of Committee. Town Meeting Article passed; Complete.
2.4	Technical Committee Rules and Regulations	Technical Committee	Publication of Rules and Regulations	Year 2-3	HAZMAT and Stormwater Bylaws are published in "Code of Town of Stoughton" and are available on Town's website. Complete.
2.5	Household Hazardous Waste Day	Board of Health, Conservation Commission, Public Works Dept.	Hold household hazardous waste collection day per year	Ongoing	Household hazardous waste days held every year.
2.6	Public Hearing / Meetings Posted	Town Manager / Board of Selectmen	Information on public meetings posted in accordance with MGL Section 23B	Ongoing	Public meeting information has continued to be posted in accordance with MGL Section 23B.
2.7	Ames Pond Citizens Committee	Conservation Commission	Form committee to increase awareness and support to restore Ames Long Pond	Year 5	Committee formed to increase awareness of nutrient problem at Ames Pond. Information published on Town website. Committee sponsor and support efforts to mitigate nutrient pollution of Ames pond.
2.8	Harris Pond Citizen Committee (Pinewood Lake Association)	Conservation Commission	Form committee to increase awareness and support to restore Harris Pond	Year 7-9	Committee formed to increase awareness of nutrient problem at Harris Pond. Information published on Town website. Committee sponsor and support efforts to mitigate nutrient pollution of Harris pond.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

2.9	Outdated/Unwanted Prescription Program	Board of Health	Provide an opportunity for residents to dispose of these materials to protect the environment. Plan to hold it twice a year	Year 7-10	Outdated/Unwanted Prescription Program was held in October. OASIS group helped out.
2.10	Prepared and distribute handout on installation and Maintenance of On-Site Sewage disposal Systems	Board of Health	Educate the public to prevent contamination to the environment and ground water	Year 8 - Ongoing	Educating the public, owners and operators of septic tanks by handing out informational materials.
2.11	Developing and implementing program for removing mercury from the Municipal solid waste stream	Conservation Commission, Board of Health, Public Works Dept.	Developing and implementing program to eliminate elements and mercury from municipal solid waste stream	Year 8– Ongoing	<ol style="list-style-type: none"> 1. A program was developed and implemented. 2. Continue to monitor existing program effectiveness and implementation.
2.12	Implementing and Maintaining the Septic Betterment Program	Board of Health	Replacing failed septic systems, and trying to obtain additional funding to continue the program for next year and beyond	Year 8-10	Replacing of individual septic systems. The program has grown up to offer Sewer Connection for many individuals as an alternative of replacing existing septic system. There has been a substantial increase in septic repair and upgrade applications. This has helped to eliminate ground water contamination in these areas.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
3.1	Map existing drain facilities in Stoughton (catch basins, manholes, BMP's, outfalls)	Engineering Dept. & GIS	<ol style="list-style-type: none"> 1. GPS Locate Manholes and Catch Basins. 2. Evaluate the current visual condition. 	<p>Year 5</p> <p>Year 1-4</p> <p>Year 7- Ongoing</p> <p>Year 9-10</p> <p>Year 10-11</p> <p>Year 10-11</p>	<ol style="list-style-type: none"> 1. Many outfalls locations have been mapped using GPS units. Data has been incorporated into the Town-wide GIS to form a stormwater data layer. 2. Approximate locations of many catch basins and manholes where incorporated into the GIS database based upon aerial photographs. 3. Continue to gather information and GPS locations on all outfalls in Town. 4. Awarded contract to consulting firm to obtain accurate GPS locations for all catch basins and drain manholes. Each structure will be visually evaluated, categorized and captured. The data will then be incorporated into the Town-wide GIS to form a stormwater data layer with exact coordinate locations. 5. Awarded contract to consulting firm to gather all the available data for the storm water structures and create the stormwater network connectivity based on the available engineering record drawing – Phase II. 6. Awarded contract to consulting firm to field verify 200 structures' data – Phase II.
3.2	Create software application for flow direction determination	Engineering Dept. & GIS	Begin mapping outfalls and generate stormwater data layer for Town-wide GIS; research drainage system modeling options	Year 4- Ongoing	Hired GIS Coordinator – some data entry from existing plans completed (Year 4). Researched purchase of prepared stormwater system modeling software. Mapped all stormwater outfalls that were visual. Complete



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

3.3	Perform closed circuit TV inspection of suspect areas	Public Works Dept.	Inspect and correct problem areas in drainage network	Year 2-6 Year 6- Ongoing Ongoing	All drains Inspected. Replaced failed drainage on Ross Avenue. Cleaned sediment from Red Wing Brook (York Street area). South Street culvert repair, Gay Street equalization pipe, School Street equalization pipe, Replace drains on West Street. Approximately half of the Town's public drains have been inspected. Additional areas continued to be completed as necessary to investigate flow restrictions or failures. Continuously inspecting. Damaged pipes are repaired immediately.
3.4	Create and Enforce Illicit Connection By-Law	Engineering Dept., Board of Health, Public Works Dept.	1. Pass By-Law at Annual Town Meeting. 2. Enforce By-Law.	Years 3-4 Ongoing Ongoing	Illicit Discharge Detection and Elimination By-Law created, approved and adopted. Completed. 1. Inspection in field during utility tie-ins and during project reviews (residential, subdivision, site plan review). 2. Continue to enforce By-law.
3.5	Information Distributed on Proper Waste Management	Engineering Dept., Board of Health, Public Works Dept.	1. Provide targeted information regarding proper hazardous waste material disposal directly to local businesses. 2. Ensure compliance with local HAZMAT regulations.	Ongoing Year 2-5, 9-10	Continue to provide information to local businesses on proper hazardous waste material disposal. (ongoing) Provided brochures from Northeast Waste Management to local businesses, auto body shops, etc.; all related businesses are regulated by the Town's HAZMAT bylaw with oversight by Board of Health.
3.6	Outfall Screening & Monitoring	Engineering Dept., Technical Committee	Perform inspection of known outfalls	Year 5-8 Ongoing	1. During GPS of outfalls structures, collected data to create comprehensive database on outfalls. Data collected included structure type/material, presence of dry weather flow, flow characteristics, presence of sediment, etc. 2. Continue to develop the list of outfalls requiring further investigation regarding the potential for illicit discharge.
3.7	Draft Stormwater Action Plan	Stormwater Committee, Engineering Dept.	10 Year Plan for Stormwater Management	Year 4	Established revolving fund, passed by-law, enforced erosion control, completed several improvement projects, perform inspections, etc. Complete.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

3.8	Public and Semi-Public swimming pool back wash discharge	Board of Health	1. Insure that back wash water is discharged properly in pre-approved location so it does not contaminate the ground water. 2. Enforce current by-law requirements.	Ongoing	Continue to enforce Public and Semi-Public swimming pool back wash discharge regulations and bylaw.
3.9	Floor Drain Regulation	Board of Health, Engineering Dept.	Enforce the commercial and industrial hazardous waste floor drain regulations.	Ongoing	Enforcing the commercial and industrial hazardous waste floor drain regulations to prevent the discharge of hazardous waste and other pollutants from industrial and commercial establishments to surface and ground water resources.
3.10	Hazardous Waste Ground water protection bylaw	Board of Health	Enforce the Hazardous Waste Groundwater Protection By-law	Ongoing	Continue to enforce the Hazardous Waste Ground water protection bylaw to preserve and maintain existing and potential groundwater supply and groundwater recharge.
3.11	Gay Street Drainage Improvements	Engineering Dept., Public Works Dept.	Survey, Design, and Construct Improvements	Year 8 Year 8	1. Engineering Department surveyed and designed improvement plans in enhance flood storage and water quality for problem area. New grading, deep sump catch basins, re-paved roadway. 2. PWD constructed project. Project is complete.
3.12	Bay Street Culvert	Engineering Dept., Public Works Dept.	Survey, Design, and Construct Improvements	Year 8	Installed large culvert, deep sump catch basins, providing infiltration and replicating wetlands to improve hydraulic and hydrologic issues.
3.13	Central Street sewer extension	Engineering Dept., Public Works Dept.	Eliminate contamination caused by sewerage system in Central Street	Year 8	Design and implement sewer extension in Central Street that replaced failed septic tanks that were contaminating the ground water due to soil factor. Project is completed.
3.14	Installing Curbs and Berms	Engineering Dept., Public Works Dept.	Eliminate contamination by installing street curbs and berms to contain runoff	Year 8-9 Ongoing	Installed approximately 9,000 l.f of curbing in Canton Street. Continuously repairing curbs and berms in need of repair in roads and town owned sites.
3.15	Implementing and Maintaining the Septic Betterment Program	Board of Health	Replacing failed septic systems, and trying to obtain additional funding to continue the program for next year and beyond	Year 8 -9	Replacing of individual septic systems. The program has grown up to offer Sewer Connection for many individuals as an alternative of replacing existing septic system. There has been a substantial increase in septic repair and upgrade applications. This has helped to eliminate ground water contamination in these areas.
3.16	Pratt's Court Culvert	Engineering Dept., Public Works Dept.	Design and Install new culverts	Year 9-10	Installing culverts, deep catch basins, providing infiltration and replicating wetlands to improve hydraulic and hydrologic issues.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

3.17	Sewer street extension in Park Street	Engineering Dept., Public Works Dept.	Eliminate contamination caused by septic systems in southern part of Park Street	Year 9-10	Design of sewer extension in southern part of Park St, Campanelli Parkway, Shuman Ave, Tenth St and southern part of Turnpike Street. This will reduce contamination to the groundwater aquifer due to the high number of failed septic systems in the area.
3.18	Drainage Improvements to Cedar Hill Golf Course	Engineering Dept., Public Works Dept.	<ol style="list-style-type: none"> 1. Survey subject area. 2. Create Design Plans to remedy runoff issue. 3. PWD to construct improvements. 	Year 9-10 Year 9-10 Projected to be Year 11	<ol style="list-style-type: none"> 1. Engineering Department has completed a topographic survey of the area. 2. Engineering Department has completed the design plans to improve runoff issues associated with the Cedar Hill Golf Course. 3. PWD will construct the drainage improvements.
3.19	Catch Basin Repairs	Public Works Dept.	Repair catch basins as needed	Year 9 - Ongoing	Repair or replace catch basin in need of repair.
3.20	Site Plan Review/ Subdivision Control	Engineering Dept, Planning Board, Conservation Commission	<ol style="list-style-type: none"> 1. Enforce site plan review procedures. 	Ongoing	<ol style="list-style-type: none"> 1. Continue to enforce Site Plan Review By-law procedures. 2. Require Erosion and Sediment Control Plan for all projects. 3. Monitor site plans for illicit connections.
3.21	ID all MS4 outfalls	Engineering Dept. / GIS	Continue to screen outfalls for data inventory, outfall condition, dry weather flow and flow characteristics	Year 3-5	Most outfall structures have been screened to collect data to create comprehensive database on outfalls. Data collected included structure type/material, presence of dry weather flow, flow characteristics, presence of sediment, et. Develop listing of outfalls requiring further investigation regarding the potential for illicit discharge.
3.22	Upgrade sewer system	PWD, Engineering	Eliminate all known sewer issues of existing infrastructure	Ongoing	<ol style="list-style-type: none"> 1. Design and implement new sewer connections and extensions when feasible. 2. Constantly evaluating town system for future upgrades or repairs. 3. Engineering Department inspects all sewer connections. 4. Many pipes are being lined to reduce infiltration and inflow issues.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
4.1	Selection of Town owned BMP's	Technical Committee, Engineering Dept., Public Works Dept., Conservation Commission	Establish and Publish standards	Year 3 Year 4 Year 5 – Ongoing	1. Established and published standards. Complete. 2. Applied to new development under site plan review By-Law (IKEA, Target, Page Place) 3. Enforce use of BMP's during site plan review.
4.2	Selection of Stormwater Management Measures & Guidelines	Technical Committee, Engineering Dept., Conservation Commission	Enforce compliance with local Conservation and Stormwater By-laws and DEP Stormwater Management Regulations via project reviews (Conservation, Site Plan Review, Subdivision Projects)	Years 2-4 Ongoing	1. Enforced during all construction by Conservation Committee and Engineering Department. 2. Subdivision and Site Plan Review reference DEP Stormwater Management Regulations for compliance procedures; 3. Stormwater and Conservation By-law approved at Town Meeting and several orders issued by Conservation Committee (Year 4). Complete. 4. Permit is required for new construction. 5. Continue to review all development to ensure compliance with the by-laws and regulations.
4.3	Technical Committee creates Stormwater Erosion Guidelines	Technical Committee	Publish guidelines	Year 2	Publish standards (Year 2-3), By-law approved at Town Meeting (Year 4). Complete.
4.4	Enforcement of Wetlands and Environmental Regulations	Engineering Dept., Conservation Commission	Enforced during all construction	Year 4-9 Ongoing	Enforced during all construction by Conservation Commission (Year 2-3), enforcement orders issued, fines imposed (Year 5); No enforcement orders were issued and no fines were imposed during Year 7. Continue to enforce Wetland Regulations.
4.5	Require Construction Period Pollution Plan for all subdivisions and commercial development >1 acre	Engineering Dept. , Planning Board, Conservation Commission	Require submittal of Construction Period Pollution Prevention Plan in accordance with the EPA General Permit for Construction Activities for all projects >1 acre	Ongoing	1. Review all Construction Period Pollution Plans for compliance with EPA General Permit for Construction Activities. 2. Perform periodic inspections to ensure compliance with General Permit.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

4.6	Require Erosion Control Measures on all projects	Conservation Commission, Engineering Dept.	Enforce compliance with local Conservation and Stormwater By-laws and DEP Stormwater Management Regulations via project reviews (Conservation, Site Plan Review, Subdivision Projects)	Ongoing	<ol style="list-style-type: none"> 1. Enforced by Conservation Commission and Engineering Department during all construction activities. 2. Require Erosion Control plan for all applicable projects. 3. Stormwater By-law and Conservation By-laws established and continue to be enforced. 4. Subdivision and Site Plan Review reference DEP Stormwater Management Regulations for compliance procedures. 5. Continue to enforce By-laws and compliance with DEP Stormwater Management Regulations.
4.7	Vegetated Buffer	Conservation Commission	Reduce nonpoint source pollution in watershed of drainage and surface runoff	Ongoing	Enforced by Conservation Commission during all construction activities
4.8	Site Plan Review/ Subdivision Control	Engineering Dept, Planning Board, Conservation Commission	<ol style="list-style-type: none"> 1. Enforce site plan review procedures. 	Ongoing	Continue to enforce Site Plan Review By-law procedures.
4.9	Erosion Control & Stormwater Site Inspections during Construction	Engineering Dept, Conservation Commission	Perform weekly site inspections on all previously permitted projects to help eliminate sediment conveyance to drainage facilities, public area, and wetland resource areas.	Ongoing	<ol style="list-style-type: none"> 1. Continue to inspect construction projects for compliance with approved site plans and By-laws; 2. Implemented inspection program consistent with bylaw and regulations. 3. Monitor and record all issues.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
5.1	Technical Committee to educate Planning Board & ZBA	Technical Committee	Identify Needed changes in existing Rules and Regulations/By-Laws	Year 3-4	By-Law approved. Complete.
5.2	Draft required changes	Stormwater Committee	Creation of new By-Laws	Year 3-4	By-Law approved; Complete.
5.3	Ongoing Review of Stormwater Impact	Stormwater Committee	Each project to be reviewed prior to construction	Year 5 - Ongoing	Engineering staff on Stormwater Committee continue to participate in comprehensive development site plan review prior to project approval. Ongoing.
5.4	Required Deed restrictions	Boards	Ensure long term maintenance by property owner	Year 4- Ongoing	All new site development in Stoughton continues to require post construction stormwater management with operation and maintenance manuals submitted prior to project approval. Ongoing
5.5	Require Long Term Operation and Maintenance & Pollution Prevention Plans for all subdivisions and commercial development >1 acre	Engineering Dept. , Planning Board, Conservation Commission	1. Require submittal of Long Term Operation and Maintenance Plan & Pollution Prevention Plan. 2. Review plans for compliance with local, state, and federal regulations. 3. Ensure long term maintenance by property owner.	Ongoing Year 5-Ongoing Year 4-Ongoing	1. Continue to require submittal of Long Term Operation and Maintenance Plan & Pollution Prevention Plan. 2. Continue to review plans for compliance with local, state, and federal regulations. 3. Require Deed Restrictions for future projects referencing Long Term Operation & Maintenance Plan for drainage facilities.
5.6	Asbestos Removal	Board of Health	Enforce asbestos removal regulations and by-law	Ongoing	Enforcing asbestos removal regulations and bylaw.
5.7	Lead paint Removal	Board of Health	Enforcing lead paint removal regulations and bylaw	Ongoing	Enforcing Lead paint removal regulations and bylaw.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

5.8	Drainage Improvements to Cedar Hill Golf Course	Engineering Dept., Public Works Dept.	4. Survey subject area. 5. Create Design Plans to remedy runoff issue. 6. PWD to construct improvements.	Year 9 Year 9-10 Projected to be Year 10	1. Engineering Department has completed a topographic survey of the area. 2. Engineering is currently designing a plan to improve runoff issues associated with the Cedar Hill Golf Course. 3. Once designed, the PWD will construct the drainage improvements.
5.9	Selection of Stormwater Management Measures & Guidelines	Technical Committee, Engineering Dept., Conservation Commission	Enforce compliance with local Conservation and Stormwater By-laws and DEP Stormwater Management Regulations via project reviews (Conservation, Site Plan Review, Subdivision Projects)	Years 2-4, Ongoing	1. Enforced during all construction by Conservation Committee and Engineering Department. 2. Subdivision and Site Plan Review reference DEP Stormwater Management Regulations for compliance procedures. 3. Stormwater and Conservation By-law approved at Town Meeting (Year 4). Complete. Several orders issued by Conservation Committee. 4. Continue to review all development to ensure compliance with the by-laws and regulations.
5.10	Vegetated Buffer	Conservation Commission	Reduce nonpoint source pollution in watershed of drainage and surface runoff	Ongoing	Enforced by Conservation Commission during all construction activities
5.11	Collecting and storing of roof generated runoff for domestic irrigation (Rain Barrel)	Conservation Commission	Educating public to collect and store roof runoff for on site irrigation and ground water replenishment. Plans to increase awareness next year by doubling the sale	Year 8 – 9 Ongoing	Educate public of the benefit for collecting and storing roof generated runoff for domestic irrigation. Sold about 100 units. Continue to sell rain barrels and educate public about benefits.
5.12	Gay Street Drainage Improvements	Engineering Dept., Public Works Dept.	Survey, Design, and Construct Improvements	Year 8 Year 8	1. Engineering Department surveyed and designed improvement plans in enhance flood storage and water quality for problem area. New grading, deep sump catch basins, re-paved roadway. 2. PWD constructed project. Project is complete.
5.13	Bay Street Culvert	Engineering Dept., Public Works Dept.	Survey, Design, and Construct Improvements	Year 8	Installed large culvert, deep sump catch basins, providing infiltration and replicating wetlands to improve hydraulic and hydrologic issues.
5.14	Installing Curbs and Berms	Engineering Dept., Public Works Dept	Eliminate contamination by installing street curbs and berms to contain runoff	Year 8-9 Ongoing	Installed approximately 9,000 l.f of curbing in Canton Street. Continuously repairing curbs and berms in need of repair in roads and town owned sites.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

5.15	Pratt's Court Culvert	Engineering Dept., Public Works Dept	Design and Install new culverts	Year 9-10	Installing culverts, deep catch basins, providing infiltration and replicating wetlands to improve hydraulic and hydrologic issues.
5.16	Drainage Improvements to Cedar Hill Golf Course	Engineering Dept., Public Works Dept	<ol style="list-style-type: none"> 1. Survey subject area. 2. Create Design Plans to remedy runoff issue. 3. PWD to construct improvements. 	Year 9-10 Year 9-10 Projected to be Year 10	<ol style="list-style-type: none"> 1. Engineering Department has completed a topographic survey of the area. 2. Engineering is currently designing a plan to improve runoff issues associated with the Cedar Hill Golf Course. Water quality and increased infiltration will be incorporated into design. 3. Once designed, the PWD will construct the drainage improvements.
5.17	Create listing of "Hot Spot" drainage areas in Town	Public Works Dept.	<ol style="list-style-type: none"> 1. Create listing of "Hot Spot" drainage areas in Town. 2. Clean Catch Basins and Roadway Sweeping more often. Monitor closely. 	Year 9 - Ongoing	<ol style="list-style-type: none"> 1. PWD has created list of these areas. 2. PWD clean catch basin and sweeps roadways in these areas more often and than other areas.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
6.1	Catch Basin Cleaning	Public Works Dept.	Clean all catch basins in Town at least twice per year to prevent excess Total Suspended Solids for entering drainage system	Ongoing	1. All catch basins in the Urbanized Area have been cleaned in the past year but most are cleaned two times per year. Some basins more frequently cleaned based on need. 2. PWD maintains records of catch basin cleaning.
6.2	Regular Street Sweeping	Public Works Dept.	Sweep all town roads at least twice per year to prevent excess sediment and TSS from entering storm system	Ongoing	All streets are swept twice per year (Spring and Fall). Problem areas are swept more frequently. Sidewalks and also swept.
6.3	Basin/Swale Maintenance	Public Works Dept.	Maintain all town owned basins and swales	Ongoing	Continue to maintain all town owned basins and swales as needed.
6.4	Inside storage of Hazardous Materials	Public Works Dept., Board of Health	No hazardous material leaks or spills	Ongoing	Fire Department licenses all business handling hazardous materials. Board of Health enforces Aquifer Protection By-Law. New Public Works Garage exceeds standards, has fully updated SPCC plan which is adhered to. All hazardous materials are stored inside.
6.5	Obtain "No exposure" rating from EPA for Multi-Sector General	Public Works Dept., Fire Dept.	Obtain "No exposure" rating from EPA	Ongoing	"No exposure" rating obtained. Complete. Maintain "No Exposure" rating.
6.6	Pesticide-free landscaping practices	Conservation Commission	Require pesticide-free landscaping practices as special requirement in Orders of Conditions	Permit Term	Require Pesticide-free landscaping practices as special requirement in Orders of Conditions.
6.7	Municipal Employee Training	Public Works Dept.	Provide two training sessions to Municipal employees	Year 5	Conducted two training sessions for municipal employees. Topics included NPDES Phase II Stormwater program requirements, the Town's stormwater management plan. Illicit discharge detection and elimination and good house keeping practices. Aired video "After the Storm" for all employees at Town Hall. Complete.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

6.8	Ames Long Pond Hydro-raking Program	Conservation Commission	Examine the feasibility of management of an extensive exotic vegetation problem in Stoughton Ponds.	Year 6 Year 9-10	Performed aesthetic pond raking project with oversight by NHESP and other agencies, and turbidity monitoring. Remove the invasive vegetated overgrowth with special machinery to transport the material off-site to local agriculture operations for composite and organic soil fortification to reduce chemical contamination of drainage runoff in the watershed. Complete. Article submitted to 2011 Annual Town Meeting for purchasing the Hydro Rake.
6.9	Fixing leaking or damaged Sewer Pipe lines	Public Works Dept.	Eliminating I & I	Ongoing	All Sewer Pipe lines are being captured to detect any leakage to be eliminated and fixed. PWD constantly fixing various lines in Stoughton.
6.10	Outdated/Unwanted Prescription Program	Board of Health	Provide an opportunity for residents to dispose of these materials to protect the environment.	Ongoing	Program is held every year.
6.11	Maintain and remove exotic invasive vegetation problems in east basin of Ames Long Pond	Conservation Commission	Developing program for removing an extreme overgrowth of exotic invasive aquatic vegetation	Year 8-9	Developing program for removing an extreme overgrowth of exotic invasive aquatic vegetation for the east basin of Ames Long Pond.
6.12	Inside storage of mercury	Public Works Dept.	Eliminate mercury pollution in Town Facilities.	Year 8 - ongoing	A specialized storage shed was built for mercury and other heavy material.
6.13	Site Plan Review/ Subdivision Control	Engineering Dept, Planning Board, Conservation Commission	Update Site Plan Review procedures to be consistent with other by-laws.	Year 9	Update Site Plan Review stormwater procedures to be consistent with other by-laws.
6.14	By-law/ Regulation Review	Engineering Dept, Conservation Commission, Planning Board, Public Works Dept.	1. Constantly evaluating regulations for improvement. 2. Evaluate and review current Stormwater By-Laws and regulations 3. Evaluate and review Stormwater related By-Laws and regulations	Ongoing Year 10-11 Year 10-11	Constantly evaluating regulations and by-laws for consistency and improvement. Working with NepRWA to evaluate the current stormwater By-Law and regulation and incorporate any needed regulations to comply with the new proposed stormwater permit. Working with NepRWA and all involved Town departments to evaluate other departments' By-Laws or regulations that are stormwater related
6.15	Stencil specified storm drains	Public works Dept.	Identified individual watersheds and stencil catch basins.	Year 2-4 Year 6	Catch Basins Stenciled. Complete. Stencils were checked and re-painted as necessary during Year 6.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

6.16	Compost Generator	Conservation Commission	Reduce the volume of solid waste by generating compost to improve vegetated cover in yards in the watershed to reduce sediment / nutrient deposition and pollution of surface water bodies and streams	Year 8-9	Educate public of the compost generator and benefits of having non chemical fertilization for yards that will improve vegetation and eliminate pollution to the ground water. Sold about 50 units.
6.17	Implementing and Maintaining the Septic Betterment Program	Board of Health	Replacing failed septic systems, and trying to obtain additional funding to continue the program for next year and beyond	Year 8 -9	Replacing of individual septic systems. The program has grown up to offer Sewer Connection for many individuals as an alternative of replacing existing septic system. There has been a substantial increase in septic repair and upgrade applications. This has helped to eliminate ground water contamination in these areas.
6.18	Selection of Town owned BMP's	Technical Committee, Engineering Dept., Public Works Dept., Conservation Commission	Establish and Publish standards	Year 3 Year 4 Year 5 – Ongoing	1. Established and Published standards. Complete. 2. Applied to new development under site plan review By-Law (IKEA, Target, Page Place) 3. Enforce use of BMP's during site plan review.
6.19	Selection of Stormwater Management Measures & Guidelines	Technical Committee, Engineering Dept., Conservation Commission	Enforce compliance with local Conservation and Stormwater By-laws and DEP Stormwater Management Regulations via project reviews (Conservation, Site Plan Review, Subdivision Projects)	Years 2-4 Ongoing	1. Enforced during all construction by Conservation Committee and Engineering Department. 2. Subdivision and Site Plan Review reference DEP Stormwater Management Regulations for compliance procedures; 3. Stormwater and Conservation By-law approved at Town Meeting and several orders issued by Conservation Committee (Year 4). Complete. 4. Permit is required for new construction. 5. Continue to review all development to ensure compliance with the by-laws and regulations.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Duration	Progress on Goal(s) – Permit Year 10
7.1	ID all MS4 outfalls	Engineering Dept. / GIS	Continue to screen outfalls for data inventory, outfall condition, dry weather flow and flow characteristics	Year 3-5	Most outfall structures have been screened to collect data to create comprehensive database on outfalls. Data collected included structure type/material, presence of dry weather flow, flow characteristics, presence of sediment, et. Develop listing of outfalls requiring further investigation regarding the potential for illicit discharge.
7.2	Find source of pollutant loading	Engineering Dept.	Monitor state listing of impaired waters, adjust stormwater management plan accordingly	Year 4-5	There are no currently established TMDLs for receiving waters within the Town of Stoughton. Complete.
7.3	Mitigate pollutant loading	Technical committee and Stormwater committee	Monitor state listing of impaired waters, adjust stormwater management plan accordingly	Year 5	There are no currently established TMDLs for receiving waters within the Town of Stoughton. Complete.
7.4	Identify sites for BMP's	Engineering Dept.	Produce plans identifying potential sites	Year 8-9	Working with Neponset River Watershed Association to identify the sites and select BMPs suited for each site.
7.5	Designing and constructing BMP	Engineering Dept., Public Works Dept., School	Applying for a grant to design and construct BMP	Year 10-11	Applying for grant to design and construct a low impact BMP at school site based on previous study that was completed on Year 9.
7.6	Vegetated Buffer	Conservation Commission	Reduce nonpoint source pollution in watershed of drainage and surface runoff	Ongoing	Enforced by Conservation Commission during all construction activities
7.7	Selection of Town owned BMP's	Technical Committee, Engineering Dept., Public Works Dept., Conservation Commission	Establish and Publish standards	Year 3 Year 4 Year 5 – Ongoing	1. Established and published standards. Complete. 2. Applied to new development under site plan review By-Law (IKEA, Target, Page Place) 3. Enforce use of BMP's during site plan review.



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Part IV. Summary of Information Collected and Analyzed

No data has been collected or analyzed yet.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2011 through March 31, 2012)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
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TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Regulatory Mechanism Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
Accompanying Regulation Status (indicate with “X”)					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	
Site inspections completed **	(# or %)	
Tickets/Stop work orders issued **	(# or %)	
Fines collected **	(# and \$)	
Complaints/concerns received from public **	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections (for proper BMP installation & operation) completed **	(# or %)	
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	
Qty of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vactor **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	



TOWN OF STOUGHTON, MASSACHUSETTS
ENGINEERING DEPARTMENT

NPDES PII Small MS4 General Permit – Year 10

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l _n mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l _n mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
<ul style="list-style-type: none"> Treatment units induce infiltration within 500-feet of a wellhead protection area 	# or y/n	