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Municipality/Organization: Town of Medfield, MA

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EPA NPDES Permit Number: MAR041131

MADEP Transmittal Number: X270470

Annual Report Number & Reporting Period: **No. 12: April 1, 2015 – March 31, 2016**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: **Ken Feeney** Title: **Department of Public Works**

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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: Michael J Sullivan

Printed Name: **Michael Sullivan**

Title: **Town Administrator**

Date: **April 25, 2016**

Part II. Self-Assessment

The Town of Medfield is located in the Massachusetts North Coastal Watershed - primarily in the Charles River Sub-basin and secondarily in the Boston Harbor (Neponset River) Sub-basin. In general, the Town of Medfield's stormwater management activities for the thirteenth year of the General Permit (April 1, 2015 through March 31, 2016) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted in July 2003. At the time, the Town developed a Stormwater Management Plan with program priorities for 2003-2008 including:

1. Achieving regulatory compliance, particularly EPA and DEP Phase II NPDES permit requirements;
2. Incorporating storm water protection measures into municipal activities;
3. Focusing activities on target pollution reduction (e.g. Section 303.d. waters and protecting the Town's water supply);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program focused on the protection of the local water supply and addressing the State's Section 303.d waters located within the Town. To this end, staff continues to develop and improve the Program activities to reduce storm water pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various Town departments. The Town of Medfield takes a broad approach to its overall water resource balancing and recognizes the interaction of its water withdrawal, sewer collection and recharge, and stormwater management, and the impacts these have on the Charles and Neponset River Watersheds. Program priorities focus on increasing efforts to reduce target pollutants (including compliance with newly developed Total Maximum Daily Loads) and replenishing local water bodies.

The Town is committed to working with local watershed associations to advance their goals and objectives. To this end, the Town of Medfield has been very active with information transfer. We have attended workshops sponsored by both the Charles River Watershed Association (CRWA) and the Neponset River Watershed Association (NRWA) and we remain an active member of the Neponset Stormwater Partnership. The Town of Medfield hosted and made a presentation to the group on August 13, 2015. Through these interactions we have become educated on the Massachusetts Stormwater Regulations, Sustainable Watershed Management Initiative and new Phase II General Permit renewal. Another high priority of staff will be to keep abreast of the latest technology and approaches to achieve storm water management (such as the sustainable design). Program activities also strive to encourage environmental stewardship and continue to build on partnerships with other agencies, neighboring towns, and the community for active participation in accomplishing the Program mission.

From 2003 through 2007, the Town focused its efforts to developing an extensive Geographic Information System (GIS) of the Town

and mapping its drainage utility. In Year Six (2008), the Town shifted its mapping efforts from the stormwater connectivity to mapping the wastewater system, since it collects flow and directs it to the Medfield Wastewater Treatment Plant located on West Street (along the Charles River). To date, the wastewater system mapping is about 100% complete and the drainage system mapping is also 98% complete. The Town has mapped all 167 of its outfall location in the Charles River Watershed and in the Neponset River Watershed).

In 2009 and 2010, the Town also continued to work on public outreach and participation. The Town's Conservation Commission continued its pond de-nitrification program at Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Tubitty Pond. The local Department of Public Works continued with its Sewer System Evaluation Survey activities, particularly expending $53,000 to assess the impacts of infiltration/inflow (I/I) on the Charles River. The Town has also undertaken an extensive I/I program to reduce flows to the Medfield Wastewater Treatment Plant in 2008 and work through 2010 is 100% complete. The proposed I/I activities were reported to EPA and DEP on February 5, 2008 as part of the compliance requirements of NPDES Permit No. MA0100978 and are in accordance with the new NPDES permit issued to the Town in 2010. The work included the installation of two new stream gauges in the Charles River, completing extensive I/I repairs using a low interest loan of $1,009,030 from the Massachusetts Clean Water State Revolving Fund (SRF) Program, expending $23,000 on I/I repairs in 2010 and obtaining $400,000 in SRF funds for upgrades to the local Wastewater Treatment Facility (WWTF) located on the Charles River. In 2011, the WWTP improvements were completed in order to improve the Town's wastewater management capabilities and over quality of its discharge to the Charles River.

In 2012, the Town of Medfield expended $112,000 for the investigation of I/I in both the Charles River and Neponset River Watersheds, including camera investigation, smoke testing and sump pump inspections; expended $288,000 on water quality related capital improvements at the Medfield Wastewater Treatment Plant, including design of a cover system to reduce algae at the secondary clarifiers; and appropriated $50,000 to address the impending Phase II MS4 General Permit items, including the incorporation of new Total Maximum Daily Load (TMDL) requirements, watershed mapping, water budgeting and the development of a Watershed Protection Plan. Town representatives continued to attended workshops and public hearings for the draft General Permits to be issued in 2013. As a result of the system investigations, the Town repaired significant pipe cracks on Pine Street and is currently expending about $164,000 for 4,200 linear feet of cured-in-place lining of sewer pipe impacted by excessive I/I.

In 2013, the Town continued with structural improvements to address its water quantity and quality demands, while planning for the future. The Town attended workshops and public hearings; continued monitoring of Infiltration/Inflow (I/I) in both the Charles River and Neponset River Watersheds (through nine sub-basin meters); completed structural I/I improvements at the Medfield Wastewater Treatment Plant, incorporated the new Total Maximum Daily Load (TMDL) requirements, GIS mapping, water budgeting, and pending regulations into a town-wide Watershed Protection Plan; expended $5,000 to participate in a regional Community Innovation Challenge Grant with the Neponset River Watershed Association and Metropolitan Area Planning Council; and continued to maintain the Town's web-site and GIS Maps.

In 2014 and 2015, the Town of Medfield became very active in the Neponset Stormwater Partnership and continued this effort by:

1. Attending public hearings for the new Phase II MS4 NPDES requirements and General Permit released in April 2016. The Town of Medfield hosted a meeting between the Neponset Stormwater Partnership and the Medfield Board of Selectmen in November 2015.

2. Expending $5,000 per year to be an active participant of the Neponset Stormwater Partnership, working with the Neponset River Watershed Association and Metropolitan Area Planning Council through Community Innovation Challenge Grants. The work resulted in the following:

    a. Public Outreach and Education Plan Template,

    b. Stormwater Management Plan Template,

    c. Illicit Discharge Detection and Elimination Plan Template,

    d. Geographic Information System (GIS) geodatabase updates,

    e. Developing a recommended Roadway Recharge Area Plan,

    f. Delineating the Town of Medfield's subwatershed catchment areas, and

    g. Prioritizing the subwatershed catchment areas in terms of land use, water resource areas and potential stormwater concern, and relative risk from low to high.

4. Monitoring of Infiltration/Inflow (I/I) in both the Charles River and Neponset River Watersheds (through nine sub-basin meters) and budgeting $50,000 annually for video camera inspections of utilities in both watersheds ($46,554 expended in 2015);

5. Completing the $186,667 construction of a cover system to reduce algae at the Wastewater Treatment Plant secondary clarifiers in 2014;

6. Expending $28,777 ($16,721 in 2015) on incorporation of new Total Maximum Daily Load (TMDL) requirements, GIS mapping, water budgeting, pending regulations and templates into a town-wide Watershed Protection Plan; and

7. Expending $5,000 annual to maintain the Town's GIS Maps.

8. Conducting year-round (semi-annual equivalent) street sweeping and catch basin cleanings.

9. Attended several informational meetings with the Charles River Watershed, most recently on April 5, 2016. Discussions focused on emulating the work done by the Neponset Stormwater Partnership.

Based on our understanding of the Massachusetts Sustainable Water Management Initiative regulations and the NPDES General Permits that were issued in April 2016, the Town has developed a preliminary plan for complying with the requirements of communities in the Charles and Neponset Watersheds. This plan includes the following:

1. Completing the connectivity component of the Medfield Drainage System Mapping in Renewal Year #1 (by April 30, 2017). Therefore, by April 30, 2017, both the drainage system and wastewater systems will have been 100% mapped onto the local Geographic Information System.
2. In year one, implementing additional SSES and WWTP on an as needed basis.
3. Investigating the impacts of the newly developed TMDLs by targeting 25% of the Charles River (i.e. Stop River) and Neponset River (i.e. Mine Brook at Jewells Pond) outfall pipes for wet and dry chemistry testing in year two of the renewed permit. To date, we have located a total of 167 outfall pipes. Therefore, 21 of the priority outfalls within the Charles River watershed and 21 of the priority outfalls within the Neponset River watershed will be targeted for sampling during the second year of the renewal permit (by April 2018). Additional outfall pipes will be sampled at a rate of about 42 outfalls per year until 100% of the outfalls have been sampled by April 30, 2021.
4. Within four years of the effective date of the renewed permit, the Town of Medfield will develop a Charles River Watershed Control Plan for phosphorus and pathogens. The Charles River plan will build upon the existing NPDES requirements at the Medfield WWTP and will be implemented on an as needed basis within the same time frame. If elimination of a condition contributing to exceedance of water quality (WQ) standards cannot be feasibly eliminated within 30 to 60 days, an action plan shall be developed and implemented as soon as practical.
5. By the end of the second renewed permit year (April 30, 2018), submit information representing progress in the development of a Phosphorous Control Plan (PCP). Beginning in the first year of implementing the PCP, the Town shall estimate (in kg/year and percent) the reduction in phosphorous loading, if any, to the Charles River.
6. Within four years of the effective date of the renewed permit, the Town of Medfield will develop a Neponset River Watershed Control Plan for bacteria. The plan will be implemented on an as needed basis within the same time frame. If elimination of a condition contributing to exceedance of WQ standards cannot be feasibly eliminated within 30 to 60 days, an action plan shall be developed and implemented as soon as practical.
7. By the end of the second renewed permit year (April 30, 2018), submit information representing progress in the development

of efforts to reduce observed bacteria and WQ exceedances in the Neponset River Watershed.

8. Public Education and Outreach – In accordance with Section 2.4.2 of the renewed permit, that Town shall distribute a minimum of two educational messages to residences, the business/commercial/institutional community, developers and contractors, and industrial community. The outreach program shall allow the public an opportunity to comment.
9. Build upon previous work and develop and inventory of known sanitary sewer flows (SSOs) within 60 days of the effective date of the new permit.
10. Train employees on the new Illicit Discharge Detection and Elimination (IDDE) Program, including how to recognize discharges and SSOs.
11. Review the existing local regulations and consolidated regulations report to determine the feasibility of making green infrastructure practices allowable (by the third term of the new permit or April 30, 2019).
12. Estimate the number of acres of impervious area (IA) and directly connected IA by April 30, 2017.
13. By October 1, 2017 complete an inventory of MS4 owned property and their infrastructures that may be retrofitted with appropriate BMPs by April 30, 2019.
14. By April 30, 2018; develop a written Operations and Maintenance (O&M) Plan for municipal activities listed in Section 2.3.7 (a-c) of the new permit.
15. Develop a Sweeping Optimization Plan by April 30, 2017 that utilizes mapping and record keeping elements to track street and parking lot cleaning activities.
16. Where applicable and in accordance with the requirements of Section 2.4.7.2(b), develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for those MS4 properties not covered by a multi-sector general permit.
17. In each permit year evaluate opportunities to include green infrastructure practices in new development and redevelopment, and evaluate opportunities to reduce the amount of impervious cover.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
1	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Correspondence with the Charles River and Neponset River Watershed Associations.	Continued updating, seek alternative funding opportunities (such as grants and SRF monies).
Revised					
2	Develop Brochures	DPW	Quarterly Mailings	Town funding was appropriated for water quality related mailings.	Address Part II, Item 8
Revised					
3	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	Association information transfer and data publication of data, local WEB updates	Include in Part II, Item 8
Revised					
Revised					

1a. Additions

20	Two (2) contacts to the four key target areas	Con. Comm., DPW, BOH	Eight (8) documents or contacts		Outline in Part II, Item 8
21	Update Sub catchment Maps and Prioritization	DPW	Electronic Mapping	Completed by Neponset Stormwater Partnership	

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
4	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling of Priority Water Bodies	Completed outfall pipe mapping and an estimated 100% of the storm system connectivity, and WWTP NPDES testing.	Continue to stencil catch basins. Continued testing as related to the WWTP NPDES Permit. Develop a plan and budget to implement Part II, Items 3 thru 7
Revised					
5	Community Cleanup Days	DPW	Annually	Conducted in Spring 2015	Scheduled for Spring 2016
Revised					
Revised					
Revised					
Revised					

2a. Additions

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
6	Catch Basin/Outfall and Receiving Water Mapping	DPW	GIS Mapping	Completed outfall pipe mapping and an estimated 100% of the storm system connectivity.	Continue to stencil catch basins. Dry weather and wet weather field screening of outfalls after mapping. Develop a plan and budget to implement Part II, Items 3 thru 7
Revised					
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	Continued testing affiliated with the WWTP NPDES permit.	Continued testing as related to the WWTP NPDES Permit. Develop a plan and budget to implement Part II, Items 3 thru 7
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions and Action	Investigated areas for revisions, such as sustainable deign and implementing new DEP stormwater standards	Revisit the consolidated regulations per Part II, Item 11
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	WWTP Upgrades Funding thru local funding, train employees on finding and addressing IDEE locations per Part II, Item 10	Continue WWTP O&M thru local funding, train employees on finding and addressing IDEE locations per Part II, Item 10
Revised					
9	Misconnection/Illegal Dumping and Correction	DPW, BOH	Connectivity Mapping, By law Enforcement/Fines	I/I Program Completion and Ongoing SSES activities (i.e. smoke testing)	Train employees on finding and addressing IDEE locations per Part II, Item 10
Revised					
21	I/I and SSES Activities	DPW	I/I Reduction	Implement WWTF Upgrades	
Revised					

3a. Additions

22	Employee Training	DPW	Documentation of Training	Train employees on finding and addressing IDEE locations per Part II, Item 10	Continue to train employees on finding and addressing IDEE locations per Part II, Item 10
23	Manhole Repairs	DPW	Structural Repair	Expended approximately $6,000 to repair manhole causing inflow	Continue to identify inflow repair as needed

4. Construction Site Stormwater Runoff Control

BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) – Permit Year 13** (Reliance on non-municipal partners indicated, if any)	**Planned Activities – Permit Year 14**
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Investigated areas for revisions, such as sustainable deign and implementing new DEP stormwater standards	Implement Part II, Item 11
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements. Train employees on finding and addressing IDEE locations per Part II, Item 10
Revised					
10	Improved As-Built Review	DPW, Planning Board	Electronic As-Built Submittals on Town GIS System	Collected as-builts of I/I work and maintain Town GIS Maps.	Collect additional as-builts of proposed 2015/2016 WWTP and I/I work. Maintain GIS Maps.
Revised					

4a. Additions

23	Assessment of Impervious Areas	DPW	GIS/CAD Calculation	Completed in 2014	Assess Impervious Areas of Town, per Part II, Item 12
24	Completed Subcatchment Map & Prioritization of risk	DPW	Geodatabase manipulations & GIS Mapping	Worked with Neponset Stormwater Partnership to complete	Assess Impervious Areas of Town, per Part II, Item 12

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Finalized consolidated regulations of applicable stormwater and aquifer protection regulations	Investigate areas for revisions, such as sustainable deign and implementing new DEP stormwater standards
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements	Ongoing to comply with local bylaws, state and federal requirements
Revised					
Revised					

5a. Additions

24	Property Inventory	DPW, Planning Board, BOH, Con. Comm.	Inventory List		Implement Part II, Item 13
25	Operations and Maintenance (O&M) Plan	DPW, Planning Board, BOH, Con. Comm.	O&M Plan		Implement Part II, Item 14
26	Sweeping Optimization Plan (SOP)	DPW, Planning Board, BOH, Con. Comm.	SOP		Implement Part II, Item 15
27	Stormwater Pollution Prevention Plans (SWPPP)	DPW, Planning Board, BOH, Con. Comm.	SWPP		Implement Part II, Item 16

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
11	Improved Street Sweepings	DPW	Semi-annual Collections	Semi-annual Collections	Semi-annual Collections. Prepare Sweeping Optimization Plan per Part II, Item 15
Revised					
12	Improved Catch Basin Cleanings	DPW	Semi-annual Collections	Semi-annual Collections	Semi-annual Collections in accordance with O&M Plan per Part II, Item 14
Revised					
13	Household Hazardous Waste Days	DPW	Annual Collections	Annual Collection	Annual Collection
Revised					
14	Drain Stenciling	DPW	Aquifer Protection Area	Conducting a seventh round of drain stenciling in 2015.	Conducting an eighth round of drain stenciling in 2016.
Revised					
18	Employee Training	DPW	Seminar Attendance	Attended several workshops, including CRWA sustainable and urban design seminar.	Identify appropriate training through local highway associations, CRWA and NRWA, and Metrowest Partnership (for 5/24/16).
Revised					

6a. Additions

22	Employee Training	DPW	Seminar Attendance		Train employees on finding and addressing IDEE locations per Part II, Item 10

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 14
6	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	Completed outfall pipe mapping of the storm system connectivity.	Continue to stencil catch basins and maintain GIS maps.
Revised					
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	Screening to be performed after completion of outfall and catch basin mapping	Dry weather and wet weather field screening of outfalls after mapping pert Part II, Items 3 thru 7
Revised					
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	Completed outfall pipe mapping and the storm system connectivity.	Maintain storm water system mapping
Revised					
16	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	Completed the installation of covers at the WWTP Secondary Clarifiers to control algae in 2014. Manhole repairs in 2015.	To be determined.
Revised					
17	Misc. Non-Structural BMPs as Needed	DPW	i.e. Bylaw Enforcement, Fees and Fines	Continued development of MS4 templates and Medfield specific Watershed Protection Plan	To be determined per Part II, Item 17
Revised					
19	Pond Cleaning and De-Nitrification	DPW and Con. Comm.	Reduction of Invasive Species and Improved Water Quality	Chemical treatment of Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Turbidity Pond.	Chemical treatment as necessary.

7a. Additions

7b. WLA Assessment

The Town of Medfield takes a broad approach to its overall water resource balancing and recognizes the interaction of its water withdrawal, sewer collection and recharge, and stormwater management, and the impacts these have on the Charles and Neponset River Watersheds. The Town's goals and objectives are to have the local DPW operations dovetail with overall watershed protection, as espoused in the Phase II General Rule and ever changing regulatory guidance, including the DEP's Sustainable Water Management Initiative (SWMI, November 2012) Program priorities focus on increasing efforts to reduce target pollutants (including compliance with newly developed Total Maximum Daily Loads) and replenishing local water bodies.

To date, the Town has focused on GIS mapping of the drainage system and priority receiving waters (i.e. the Charles River). Outfall pipes and catch basins have been 100% mapped and the connectivity of the system has been 98% mapped. The Town's recent focus was on mapping its wastewater system that flows to the WWTP located on the Charles River and completion of the wastewater system mapping, identification (thru SSES) and repair of I/I sources, and continued treatment of selected ponds. The Town will continue to conduct water testing as required under its NPDES permit at the WWTP. Additional, structural BMPs of the wastewater collection system (i.e. slip lining) will be completed with the implementation of I/I activities that will improve the functionality of the local WWTP that discharges into the Charles River under an existing NPDES permit. In 2011/2012, the Town completed $400,000 in upgrades to the local WWTP with SRF funding, and in 2012/2103 appropriated and addition $400,000 for SSES investigation activities and structural BMPs.

In 2013, the Town continued with structural improvements to address its water quantity and quality demands, while planning for the future. The Town attended workshops and public hearings; continued monitoring of Infiltration/Inflow (I/I) in both the Charles River and Neponset River Watersheds (through nine sub-basin meters); completed structural I/I improvements at the Medfield Wastewater Treatment Plant, incorporated the new Total Maximum Daily Load (TMDL) requirements, GIS mapping, water budgeting, and pending regulations into a town-wide Watershed Protection Plan; expended $5,000 to participate in a regional Community Innovation Challenge Grant with the Neponset River Watershed Association and Metropolitan Area Planning Council; and continued to maintain the Town's web-site and GIS Maps.

In 2014, the Town continued with structural improvements to address its water quantity and quality demands, while planning for the future. The Town:

1. Attended public hearings for the impending Phase II MS4 NPDES requirements and draft General Permits;
2. Continued monitoring of Infiltration/Inflow (I/I) in both the Charles River and Neponset River Watersheds (through nine sub-basin meters) and expending $34,216 on structural I/I improvements;
3. Expended $186,667 on water quality related capital improvements at the Medfield Wastewater Treatment Plant, including

construction of a cover system to reduce algae at the secondary clarifiers;

4. Expended $36,778 on incorporation of new Total Maximum Daily Load (TMDL) requirements, Geographic Information System (GIS) mapping, water budgeting, and pending regulations into a town-wide Watershed Protection Plan;
5. Expended $5,000 to participate in a regional stormwater grant with the Neponset River Watershed Association and Metropolitan Area Planning Council; and
6. Expended $5,000 on maintaining the Town's GIS Maps.

In 2015, the Town continued with its watershed protection planning, structural improvements to address water quality concerns and inspections to control stormwater quantities. More specifically, the Town:

1. Attended public hearings for the Phase II MS4 NPDES requirements and General Permits issued in April 2016.
2. Expended $5,000 to be an active participant of the Neponset Stormwater Partnership (NSP) that it being managed by the Neponset River Watershed Association and Metropolitan Area Planning Council under a 2015 Community Innovation Challenge Grant. The NSP met quarterly and the 2015activities included:
    a. Tracking of the recently issued Phase II MS4 General Permit,
    b. Updating a Public Outreach and Education Plan Template,
    c. Updating the Stormwater Management Plan Template,
    d. Updating the Illicit Discharge Detection and Elimination Plan Template,
    e. Reviewing the Geographic Information System (GIS) geodatabase for the Town of Medfield,
    f. Delineating the Town of Medfield's subwatershed catchment areas, and
    g. Prioritizing the subwatershed catchment areas in terms of land use, water resource areas and potential stormwater concern, and relative risk from low to high.
3. Expended $5,000 on maintaining the Town's GIS Maps.
4. Continued monitoring of Infiltration/Inflow (I/I) in both the Charles River and Neponset River Watersheds (through nine sub-basin meters) and expended $50,000 on additional video camera inspections of utilities in both watersheds;
5. Conducted year-round (semi-annual equivalent) street sweeping and catch-basin cleanings;
6. Expended $5,000 on manhole repairs;
7. Continued to update the Town of Medfield Watershed Protection Plan, based on NRWA and MAPC recommendations; and

8. Hosted the NRWA and MAPC at a public meeting of the Medfield Board of Selectmen in November 2015.

As stated last year, the Town of Medfield has been tracking the New Hampshire General Permit and the draft Massachusetts General Permit and, in order to comply with the potential new requirements, is planning on the activities outlined in Part II, Items 1 through 17. These activities have been incorporated in our Summary of Minimum Control Measures (Part III). The Town also continues to appropriate $25,000 to $50,000 per year for direct compliance with Phase II requirements.

Part IV. Summary of Information Collected and Analyzed

The Town has reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and appears to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. Minor revisions may be required for informing local project proponents of the Phase II one-acre NPDES requirement.

As a result of the information collected to date, the Town will be focusing significant effort on complying with the newly issued Phase II MS4 General Permit. This will likely include the development of a stormwater bylaw and presenting it to Town Meeting in spring 2017. To this end, the local DPW has been working with other local regulators, the Town Administrator, the NRWA and MAPC on preliminary stormwater bylaws.

Chemical de-nitrification of Vine Lake, Bakers Pond, Danielson Pond, Flynn's Pond and Tubitty Pond will serve to improve the overall water quality and sustainability of these water resources. The local Conservation Commission is dedicated to setting funds aside each year to continue with this effort.

The Town continued the process of mapping its utility systems, has completed several rounds of stenciling catch basins, and expend funds each year to maintain the system. The immediate focus of the water quality program is at the WWTP and its NPDES discharge to the Charles River. In accordance with the newly issued General Permit attention has shifted to the immediate outfall locations that are located in the Charles River Watershed and Neponset River Watershed with TMDL's (i.e. Charles River, Stop River and Mine Brook, respectively). In 2015, the Town worked with the MAPC to develop a watershed sub-catchment area map and each area has been prioritized from low to high risk, based on land uses and potential environmental impact.

The Town has appropriated funds to provide notification regarding the potential impacts of herbicide and pesticide use on water bodies and will initiate updates to the public through water bill mailings and postings on the local WEB site. The Town will also work on alternatives to promote volunteerism.

In addition, the Town continues to budget $50,000/annually to conduct video camera work of its aging sewer and drain pipe. The

work is conducted to minimize the amount of I/I that travels to the Medfield WWTP, and that is subsequently discharged to the Charles River, and to reduce the flow through the Town's drainage system. The FY2016 I/I work commenced in April 2015.