

**Municipality/Organization:** Town of Medway, MA

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**EPA NPDES Permit Number:** MA041132 (expired)

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**MassDEP Transmittal Number:** W-

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**Annual Report Number**      **Year 13**  
**& Reporting Period:**                      **April 1, 2015 – March 31, 2016**

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2016)

### Part I. General Information

Contact Person: Mr. David D'Amico                      Title: Deputy Director, Dept. of Public  
Services

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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



Printed Name: Thomas Holder

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Title: Director, Dept. of Public Services

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Date: April 29, 2016

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## **Part II. Self-Assessment**

Over the past year, the Town of Medway has increased its focus on the new MS4 stormwater permit requirements as laid out in the current draft Permit. Chief among these has been laying the groundwork for creation of a stormwater utility. The Town continues with its consultant, Kleinfelder, to take a proactive approach to compliance in preparation for the Final Permit, which will become effective on July 1, 2017. Kleinfelder has used a MassDEP-provided working document of proposed requirements to develop a schedule of activities and costs over a 20 year period. A presentation of anticipated program activities and costs was shared with the Town's Board of Selectmen during this Permit Year. In addition, a Storm Water Task Force with representatives from the Board of Selectmen, Department of Public Services, Water & Sewer Commission, Charles River Pollution Control District, Planning & Economic Development Board, Conservation Commission, Finance Committee and others has been convened to discuss strategies related to the new MS4 permit and other water conservation issues. The Town was awarded a MassDEP grant to develop a draft Stormwater Utility Implementation Plan. The work during the current reporting year included a refinement of impervious coverage GIS data and revenue analysis building upon prior grant-funded work during 2013. Although political leaders are receptive at this point to increasing staff, budgets, and possibly adding a storm water utility, they do not want to commit precious resources to implement a large scale program until more definitive data is collected. We continue to work on infrastructure identification, mapping, and testing as a primary focus for future requirements in keeping with permit requirements.

The RT 109 Reconstruction Project has been bid and awarded. Work on this highly visible project will begin in May, 2016. It provides many opportunities for direct mailings, public meetings, Business Council updates, and one-on-one conversation with area residents. We continue to stress the revisions and improvements to the storm water collection system along the route and Choate Pond.

MassDOT has also been advertising a new grant program called Complete Streets. This program seeks to have member communities provide added bike lanes and sidewalks for better multimodal transportation support. Medway along with other area towns has expressed concern that this program is at odds with the new MS4 permit as it actually encourages adding impervious surface. MassDOT has not formally responded to these concerns, however it should be addressed by the agencies involved.

During the current reporting period, the Town continued its work to update its Stormwater Program. 88 priority outfalls (out of 221 total MS4 Outfalls) have been GPS-located, and each has recently been inspected for dry-weather flow and condition. The Town recognizes the need to continue to update the Town's Drainage Basemap, as required under the Final Permit Section 2.3.4.5. Approval for a new GIS Coordinator position has been received. This effort will be a primary responsibility for this new position.

The Town continued the implementation of its 2014 Illicit Discharge Detection & Elimination (IDDE) Plan by conducting 58 dry weather IDDE inspections during the reporting period, focused initially on locations of concern (High and Medium priority outfalls) prior to investigating low priority outfalls. Through these inspections, 7 assets were identified as non-MS4 outfalls (culverts) and 50

outfalls had no evidence of illicit discharge. One outfall had evidence of potential illicit discharge (outfall 50-3).

Outfall 50-3 on Kenny Drive was inspected on May 13, 2015. Elevated field test results for surfactants resulted in a water sample submission to Alpha Analytical laboratory in Westborough, MA. Visual and olfactory evidence indicated a likely contribution of illicit discharges. This outfall was re-screened according to the IDDE Plan, and on July 2, 2015 and dye traced. The source of the illicit discharge was identified and subsequently removed by the property owner, in accordance with local by-laws and the MS4 permit.

Working with the Metropolitan Area Planning Council, the Town participated in a new flyover of the entire Town providing new high resolution imagery for our GIS system. There were some problems in the imagery which has delayed release of the images to Medway. We expect this to be available at any time. This imagery will provide important information on current BMP's to supplement ground data collection and allow superior operational planning.

The Department of Public Services has continued to receive funding for major sewer trunk line repairs with several inflow and infiltration problems corrected. These lines flow to the Charles River Water Pollution Control District for treatment and discharge to the Charles River. Although treated, the flow should be contributing to groundwater resources instead of being directly discharged to the Charles River. This has now become an established program to inspect and repair in alternating years various segments of the sewer collection system.

The Department, as usual now, participated in volunteer community events with message boards, brochures, hand-outs, and web announcements all designed to raise public awareness. Booths were set-up at Family Day held at Choate Pond and at Medway Pride Day, as well as, other events such as Town meetings, household hazardous waste day, and other open meetings. These events are used to promote an array of conservation initiatives in water, solid waste recycling, and energy. Three separate educational brochures were developed specifically for Medway, and distributed at these events again in 2015. The topics covered include Recycling and described how rain barrels can help decrease stormwater runoff to streams, phosphorous, its use and effects, yard waste, and pet waste information. In addition, a new Director of Communications position has been created and filled in Town. This position will publish monthly newsletters and post more information on-line for improved public outreach.

Last year was reported as “the year of anticipation.” That theme has continued in 2015, however, the discussions among the various involved groups is now more pointed, more planning orientated, and generally at a higher level of understanding. The delay in issue of the final permit only serves to extend the planning phase of compliance which is to the Town's benefit. This will allow us to better map the system and prepare for the new requirements.

### 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 extended<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                                                                                                                                                                                                                                    | Planned Activities – Permit Year extended                                                                                                                                                                                                                                                                |
|--------------|--------------------|-------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1<br>Revised | NEWSPAPER ARTICLES | DPS/ DAVID D'AMICO            | RAISE PUBLIC AWARENESS             | RT 109 has been bid and awarded by MassDOT. The Town has organized an outreach committee for the project. This will generate meetings and news stories that can have a stormwater theme. Medway held Family Day again at Choate Park which was highly publicized and well attended. Clean Sweep, rain barrel disbursements, household hazardous waste day, Pride Day all held again with corresponding articles.                                                                        | RT 109 will be a major area of focus and provide many opportunities for meetings and news stories. Repeat successful events with newspaper articles.<br><br>Develop plans for a multi-million dollar improvement to the Choate Pond area.                                                                |
| 2<br>Revised | PUBLIC MEETINGS    | BOH/BETH HALLAL               | CHOATE POND/CHICKEN BROOK CLEAN UP | Public meetings with Conservation Commission, Board of Health, and Parks Commissioners held at duly posted regular meetings. New MS4 permitting requirements and Stormwater utility creation were presented to the public at a Board of Selectmen's meeting on February 17, 2015. Nov. 2015 Town meeting approved funds for expanded trail plans through wetland areas. Several public meetings anticipated in 2016. Stormwater Utility grant awarded and more detailed modeling began. | Continue Board of Health meetings on water quality; increased coordination with ConCom through their agent. Town Meeting will need to fund actual trail construction after plans are completed.<br><br>Town meeting in May will seek funds for multi-million dollar improvement to the Choate Pond area. |

|   |                        |                              |                                                           |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                        |
|---|------------------------|------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3 | SCHOOL OUTREACH        | SCHOOL DEPT/DR. ARMAND PEREZ | SCIENCE CURRICULUM INCLUDES WATER RESOURCES TOPICS        | Science curriculum includes topics on stormwater pollution and prevention; Worked with local Boy Scout troops on overnight camping at Choate Pond with water resource discussion. RT 109 work delayed into 2016.                                      | Discuss with School Dept. additional curriculum opportunities.<br><br>Continue to work with local Boy Scout troops on resource projects. Continue to use RT 109 project as an educational opportunity. |
| 4 | TOWN WEB SITE          | DPS/ THOMAS HOLDER           | RAISE PUBLIC AWARENESS                                    | Stormwater and water quality information on the Town web site focusing on special events, projects, and general water resource information. Hired Director of Communication for for better use of more social media.                                  | Continue web announcements.<br><br>Work with Director of Communications to enhance and improve the message.                                                                                            |
|   |                        | COMMUNICATIONS/MARY BECOTTE  |                                                           |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                        |
| 5 | CABLE TV               | DPS/ DAVID D'AMICO           | RAISE PUBLIC AWARENESS                                    | Discussed topics on stormwater management during Town Meeting, Selectmen, ConCom, and FinCom meetings aired locally. Several discussions about Water Resources Management Project, new MS4 regulations, and RT 109 project.                           | Continue discussions at aired meetings.                                                                                                                                                                |
|   |                        | COMMUNICATIONS/MARY BECOTTE  |                                                           |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                        |
| 6 | CATCHBASINS STENCILING | DPS/DAVID D'AMICO            | STENCIL ALL CATCHBASINS WITH DIRECT DISCHARGE TO OUTFALLS | Spot stenciling performed as needed.                                                                                                                                                                                                                  | Update and re-stencil as needed. Focus on CB's feeding outfall areas.                                                                                                                                  |
| 7 | EDUCATIONAL SIGNAGE    | DPS/ DAVID D'AMICO           | RAISE PUBLIC AWARENESS                                    | Sign board postings continued. Two electronic signboards used to display public water messages IWRMP Poster Board was displayed at Medway Pride Day. Again, distributed 3 different brochures which discuss stormwater pollution at community events. | Continue publishing notices. Seeking other educational areas in drainage areas for RT 109 reconstruction.                                                                                              |

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|----|--------------------------|-------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | PUBLIC FEEDBACK          | TA/ DPS/ BOH /SELECTMEN | RAISE PUBLIC AWARENESS                                                      | Town has increased its use of social media with impressive results. Order of magnitude increase in response from the public. Most effective communication tool found to date. Public at large responding positively to web site, advertisements, public discussions, and CB stenciling. Town now uses a reverse 911 system and school resources for additional outreach with good results. | Continue to gather, analyze, and adjust to feedback. Continue to use PeopleGIS Forms capability for more surveys/public response. Expand use of social media.                                                                                |
| 9  | GREEN COMMUNITY PROJECTS | TA/DPS/ BUILDING INSP   | ASSORTED PROJECTS UNDER GRANT COMPLETED AND PUBLICIZED                      | DPS continued several initiatives in solid waste, water, stormwater, etc. Types of programs included rain barrel installs, rigid plastic recycling, no phosphorous fertilizer use, water conservation efforts, etc. Constructed pocket park at Mechanic Street to clean the area. Paid in part with donations from businesses.                                                             | Continue to look to include businesses in opportunities in all areas. Approach businesses along the RT 109 corridor to consider donating easements for public pocket park areas. These will provide more opportunities for public bulletins. |
| 10 | RAIN BARREL PROGRAM      | DPS                     | Promote sale of rain barrels.<br><br>Track the number of rain barrels sold. | DPS had a public sign-up for rain barrels and distributed 48 of them to the public. Brochures of the benefits were made available.                                                                                                                                                                                                                                                         | Repeat program.                                                                                                                                                                                                                              |

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| 11 | Promote Responsible Yard Waste Management | DPS                          | <p>Promote Sale of Composters.</p> <p>Track number of composters sold.</p> <p>Distribute brochure that propomotes yards waste reecycling and composting.</p> <p>Promote use of the Town's recycling center for disposal of yard waste.</p>                     | <p>DPS sold 15 of them to the public. Began sign-up for 2015 order and distribution. Brochures of the benefits continue to be made available.</p> <p>Town's homepage set to provide a quick link to trash and recycling information. Yard waste is a substantial portion of the total volume handled at the center.</p> | <p>Finalize order and distribute composters ordered. Evaluate Composter Program (2015). Likely to promote every other year due to demand.</p> <p>Investigate adding more options for residents for waste disposal.</p> <p>Create a brochure and mailing for the recycling center offered services.</p> |
| 12 | Promote Responsible Pet Waste Management  | DPS / ANIMAL CONTROL OFFICER | <p>Intensify the Existing Pet Waste Management Campaign. Update the existing dog park rules brochure to include information regarding the effects of pet waste on water quality, proper pet waste disposal and what pet owners can do to reduce pollution.</p> | <p>Some Garnsey Park rules modified as appropriate.</p> <p>Worked with organizers of "King Fido's Fair" held at the park to promote pet waste management.</p> <p>Discontinued permitting for Garnsey Dog Park. Not enough staff to support a free permit. Use of the park and kiosk continues.</p>                      | <p>2,300 dogs in Town. Work with Animal Control Officer to send pamphlet with license renewals.</p>                                                                                                                                                                                                    |

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| 13 | Residential Landscape and Lawn Care Education                        |  | <p>Develop a brochure that educates on the impacts of nutrient loading in Lawn Care and provides helpful lawn care and landscaping tips to help reduce the amount of pollutants from entering the storm water collection system.</p> <p>Distribute brochure at pertinent events. Track events where brochure was made available.</p> | <p>Pesticide and Yard Waste brochures distributed at pertinent events.</p> <p>Recycling Center brochure developed and distributed.</p>                                                                                                                                                                       | The Town will continue to distribute and post the educational brochure.           |
| 14 | General Stormwater Awareness                                         |  | Develop a poster on Stormwater Pollution for display at Town Hall, Public Library, and outreach events                                                                                                                                                                                                                               | Poster for the Integrated Water Resources Management Plan (IWRMP) includes stormwater educational language displayed at Medway Pride Day, Town Hall, DPS Offices, and Town Meetings                                                                                                                          | Continue to display. Determine if any updates are necessary.                      |
| 15 | Targeted outreach to Industrial / Commercial / Development audiences |  | Develop a plan for outreach on audience –specific message                                                                                                                                                                                                                                                                            | Attended many joint meetings with area businesses focused on new MS4 regulations. The desire is to tailor the message to the new requirements. Deferral of the permit issue has pushed this activity back. Many other outreach activities continue especially thru local boards and Medway Business Council. | Awaiting final issue of new regulations for a clear, consistent targeted message. |



**1a. Additions**

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## 2. Public Involvement and Participation

| <b>BMP ID #</b> | <b>BMP Description</b>      | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                                    | <b>Progress on Goal(s) – Permit Year extended</b><br>(Reliance on non-municipal partners indicated, if any)                                                                                                                      | <b>Planned Activities – Permit Year extended</b>                                                                                       |
|-----------------|-----------------------------|--------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1               | CROSS COMMITTEE INVOLVEMENT | TOWN ADMINISTRATOR                   | RAISE PUBLIC AWARENESS                                       | Much improved coordination through single engineer consultant, ConCom Agent, and consolidated DPS. Meeting 1 to 3 times per week on issues.<br>Stormwater was discussed at the Board of Selectmen's meeting on February 17,2015. | Continue regular meetings with key staff. Review permitting requirements and provide updates at public meetings.                       |
| Revised         |                             |                                      |                                                              |                                                                                                                                                                                                                                  | .                                                                                                                                      |
| 2               | HHW DAY                     | DPS/TOM HOLDER                       | PUBLIC PARTICIPATION                                         | HHW collection advertised and held w/ 195+ residents.                                                                                                                                                                            | HHW collection day scheduled for May 21st.                                                                                             |
| 3               | POND CLEAN-UPS              | TA/ALLISON POTTER                    | HOLD ANNUAL EVENT                                            | Medway Clean Sweep encompassed entire Town including Choate Park and Charles River areas. Approximately 165 volunteers participated.                                                                                             | Plan similar event for 2016.                                                                                                           |
| 4               | PUBLIC EVENTS               | PARKS COMM.                          | HOLD ONE OR MORE ANNUAL EVENTS                               | Events held at Choate Park/Thayer House-Air Force Band, Summer Concert series, Movies at the Park, Family Day, and Christmas Parade end point all held at the park.                                                              | Hold similar events.                                                                                                                   |
| 5.              | PUBLIC ACCESS               | DPS/OPEN SPACE COMMITTEE             | OPEN BROOK AND RIVER AREAS TO THE PUBLIC AND RAISE AWARENESS | Maintained canoe launch constructed on Village St. by the State DRC.<br><br>New trail along High School eastern boarder connecting to Choate Park trail completed.<br><br>Educational kiosks installed at all trailheads.        | Maintain and advertise areas for public use.<br><br>Provide more educational material at kiosks.<br><br>Open new trail at High School. |

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|---|-----------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 6 | DEVELOP AND IMPLEMENT A MEANS FOR RESIDENTS TO REPORT STORMWATER VIOLATIONS | DPS/IT/ COMMUNICATIONS | <p>Establish the electronic form or web link on the Town's website.</p> <p>Advertise the electronic form or web link</p> <p>Track the number of complaints received</p> <p>Track the problems/incidents remedied as a result of the electronic form/link.</p> | <p>General comments and concerns available on the web site.</p> <p>Town social media pages and monitoring of other social media pages greatly enhancing reporting and communications in a broad range of topics.</p> | Awaiting final MS4 permit to create more detailed guidance for complaints/concerns to be logged and acted upon. |
|   |                                                                             |                        |                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                      |                                                                                                                 |

## 2a. Additions

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### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description                            | Responsible Dept./Person Name | Measurable Goal(s)                | Progress on Goal(s) – Permit Year extended<br>(Reliance on non-municipal partners indicated, if any)         | Planned Activities – Permit Year extended                                                                                                                                                                                                                                                                                             |
|----------|--------------------------------------------|-------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | WEEKLY TESTING                             | DPS/DAVID D'AMICO             | MAINTAIN LOW ECOLI LEVELS         | Swimming program at Choate suspended. Regular testing suspended. No desire to reinstate swimming at present. | None at this time.                                                                                                                                                                                                                                                                                                                    |
| Revised  |                                            | BOH/BETH HALLAL               |                                   |                                                                                                              |                                                                                                                                                                                                                                                                                                                                       |
| 2        | MAINTAIN STORM SEWER SYSTEM MAP W/OUTFALLS | DPS/DAVID D'AMICO             | STORM SEWER SYSTEM MAP MAINTAINED | Maintained GIS layer. Planned new aerial imagery for the Town is completed. Awaiting delivery.               | As funding allows, the Town will continue to update its Drainage Basemap. The components that will need to be mapped based on the anticipated Draft Permit requirements include: catchbasins, drainpipes, drain manholes, open conveyances (swales, ditches), town owned stormwater treatment structures, other MS4 interconnections. |
| Revised  |                                            |                               |                                   |                                                                                                              | Install new aerial imagery for GIS mapping.<br><br>Gather data on catchbasins during CB cleaning.                                                                                                                                                                                                                                     |

|   |                                                                                                                                                                                                                                                                                                                                                                          |                   |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                               |
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| 3 | <p>SCREEN OUTFALLS FOR ILLICIT CONNECTIONS</p>                                                                                                                                                                                                                                                                                                                           | DPS/DAVID D'AMICO | <p>SCREEN ALL OUTFALLS AND REMOVE ILLICIT CONNECTIONS</p>                                                                                                                                                                                                        | <p>The DPS field staff has used the outfall map book to mark mapping discrepancies and to add missing infrastructure, to a planning level of accuracy. The paper markups are then used to update the GIS periodically. The existing level of accuracy for the outfalls on the maps is adequate for planning level purposes and IDDE investigation.</p> <p>Total of 88 outfalls have been mapped and inspected to date. Only one problem detected and corrected so far.</p> | <p>Continue to conduct outfall screening in accordance with the 2014 IDDE Plan. Begin with Medium Priority outfalls followed by Low priority outfalls.</p> <p>For any of the sampled outfalls suspected of illicit discharges, begin investigation and elimination procedures.</p> <p>Continue efforts as availability and weather allow.</p> |
| 4 | <p>INTEGRATE THE SEPTIC SYSTEM DATABASE INTO THE TOWN'S GIS DATABASE AND MAPPING SYSTEMS</p> <p><i>(Promotes centralized storage of records, incorporates data into a format to be used with future phosphorous control mapping, and provides easy format for querying pumping records to identify systems that have been pumped more than four times per year.)</i></p> | BOH / BETH HALLAL | <p>Develop septic system records data entry interface for use with the Town's GIS database and mapping systems.</p> <p>Implement use of the new data entry interface.</p> <p>Track the number of septic systems that have failed each year and action taken.</p> | <p>On-line data entry forms have been created using the Town's GIS mapping system.</p>                                                                                                                                                                                                                                                                                                                                                                                     | <p>Begin capturing data using the new forms.</p> <p>Build a GIS layer to geo-locate and analyze data.</p>                                                                                                                                                                                                                                     |

|         |                                                                                                                                                                                                                                |     |                                                                                                                                                       |                                                                    |                                                                |
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| 5       | <b>SEPTIC SYSTEM<br/>MAINTENANCE<br/>EDUCATION</b><br><br><i>(Educational packets to include literature about caring for a septic system, identifying a failing system and guidance for having a Title V inspection done.)</i> | BOH | Develop educational packets.<br><br>Track the distribution of the public education packets.<br><br>Post educational information on the BOH's website. | "Septic Facts" brochure has been created and is available on-line. | No funding for direct mailing. Hardcopies mailed upon request. |
| Revised |                                                                                                                                                                                                                                |     |                                                                                                                                                       |                                                                    |                                                                |

### 3a. Additions

|   |                                                  |     |                                                                          |                                       |                   |
|---|--------------------------------------------------|-----|--------------------------------------------------------------------------|---------------------------------------|-------------------|
| 6 | <b>SEPTIC SYSTEM<br/>REPLACEMENT<br/>PROGRAM</b> | BOH | Participate in the State DEP "Community Septic Betterment Loan" program. | Loans made available through the BOH. | Continue program. |
|   |                                                  |     |                                                                          |                                       |                   |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description         | Responsible Dept./Person Name                | Measurable Goal(s)                                     | Progress on Goal(s) – Permit Year extended<br>(Reliance on non-municipal partners indicated, if any)                                                                                  | Planned Activities – Permit Year extended                                   |
|----------|-------------------------|----------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1        | SILT FENCING, HAY BALES | BUILDING/JACK MEE & CONCOM /BRIDGET GRAZIANO | NO RUNOFF INTO STORMWATER SYSTEM AT CONSTRUCTION SITES | Conservation Agent and Building Inspector are both working to improve enforcement. New staff with some improved regulations proposed, however waiting new stormwater permit from EPA. | Continue enforcement of new regulations. Propose new regulations as needed. |
| Revised  |                         |                                              |                                                        |                                                                                                                                                                                       |                                                                             |
| 2        | PUBLIC WAY CLEANUP      | DPS/DAVID D'AMICO                            | INSURE NO SILT ON THE ROAD ADJACENT TO AREA            | Stabilization pads at all entrance/egresses during construction; street sweeping / catch basin cleaning completed by contractors & DPS.                                               | Continue compliance with regulations.                                       |
| Revised  |                         |                                              |                                                        |                                                                                                                                                                                       |                                                                             |

##### 4a. Additions

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## 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 extended<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                      | Planned Activities – Permit Year extended                                                                                                                                       |
|----------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | REGULATE STORMWATER MGT & EROSION CONTROL                         | DPS/DAVID D'AMICO & THOMAS HOLDER/P&EDB/ CONSERVATION | REGULATIONS PASSED                    | Town engineering firm working through Planning & Economic Development Board to monitor and improve regulation.<br><br>Started reviewing stormwater by-law. Will need to tighten regulations to match permit requirements. | Continue to review regulations and propose changes as needed.<br><br>Revise stormwater by-law.                                                                                  |
| Revised  |                                                                   |                                                       |                                       |                                                                                                                                                                                                                           |                                                                                                                                                                                 |
| 2        | IMPLEMENT IMPROVED ENG DESIGN FOR INFILTRATION & SEDIMENT CONTROL | PLANNING BOARD                                        | NEW DESIGNS INSTALLED                 | New construction being requested to install forebays to better manage sediment and cultic units for below grade infiltration of storm water.                                                                              | Continue progress with new engineering designs incorporating tree infiltration wells and gravel wetlands. Develop a simple drop in tree well design and have available for use. |
| 3        | REQUIRE AS-BUILT DOCUMENTATION                                    | PLANNING BOARD/ BUILDING INSPECTOR/ DPS               | AS-BUILTS RECEIVED AND PROPERLY FILED | As-built plans for construction projects received, reviewed, and filed. Documents being filed electronically filed and cataloged.                                                                                         | Continue as-built plan requirements.<br><br>Require new plans to be submitted in GIS format for easy update of GIS layers,                                                      |
| 4        | PROVIDE LONG TERM MAINTENANCE                                     | DPS/DAVID D'AMICO                                     | LONG TERM MAINTENANCE PERFORMED       | Brentwood and Village Street culvert designs complete. Village Street lacks funding. Brentwood work bid and awarded. Construction in April, 2016.                                                                         | Construct Brentwood area drainage work. Construct Village Street culvert work funds permitting.                                                                                 |
| Revised  |                                                                   |                                                       |                                       |                                                                                                                                                                                                                           |                                                                                                                                                                                 |

### 5a. Additions

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## 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 extended<br>(Reliance on non-municipal partners indicated, if any)                                                                                                           | Planned Activities – Permit Year extended                                                             |
|--------------|---------------------------------------------------|------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 1<br>Revised | WASH DOWN AREA                                    | DPS/DAVID D'AMICO                        | NEW WASH AREA CONSTRUCTED | Wash bay operational.                                                                                                                                                                                          | Continue operation.                                                                                   |
| 2<br>Revised | SALT SHED                                         | DPS/DAVID D'AMICO                        | COVERED & COFFER DAMED    | Feasibility study for new DPS facility completed and alternate location also studied. Committee reviewing plans with BOS. Design funding appropriated.                                                         | Continue to press need for new DPS Facilities. Establish definitive plan and complete design in 2016. |
| 3            | CATCHBASIN SUMP CLEANING                          | DPS/DAVID D'AMICO                        | # CATCHBASINS CLEANED     | Entire Town cleaned. 400+ catch basin sumps cleaned; cost over \$40,000.                                                                                                                                       | Monitor basins. Funds do not permit deep cleaning on more than an annual basis.                       |
| 4            | PUBLIC WAY CLEANUP                                | DPS/DAVID D'AMICO                        | # ROADS SERVICED          | Street sweeping / catch basin cleaning complete throughout Town.                                                                                                                                               | Street sweeping / catch basin cleaning. Bids received for street sweeping are price prohibitive.      |
| 5            | EMPLOYEE TRAINING                                 | DPS/DAVID D'AMICO                        | # EMPLOYEES TRAINED       | Employees trained in SWMP, new by-laws, illicit connections, good housekeeping, etc. DPS includes highway, parks, vehicle maintenance, building maintenance, water, sewer, & solid waste under one department. | Provide refresher training.                                                                           |
| 6            | BEAVER CONTROL POLICY                             | BOH/BETH HALLAL, CONCOM/BRIDGET GRAZIANO | # OF BEAVER DAMS BREACHED | Dams breached rarely and only due to public safety concerns. Water levels rising and causing public concerns. Maintain installed control devices.                                                              | Install more water level control devices and leave beaver dams in place.                              |
| 7            | REDESIGN AND RECONSTRUCT RT 109 BUSINESS DISTRICT | DPS/DAVID D'AMICO                        | RT 109 RECONSTRUCTED      | Project design completed. All ROW secured and certified by MassDOT. Project has been bid and contract to be issued in April, 2016.                                                                             | Start construction and move toward 40% completion.                                                    |

|   |                                                                            |                      |                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                            |                                                                                       |
|---|----------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 8 | TOWN WIDE<br>CLEAN-UP                                                      | TA/ALLISON<br>POTTER | ALL STREETS<br>CANVASED AND<br>TRASH PICKED-UP                                                                                                                                                                                                                                     | Completed sweep of entire Town<br>using High School students to both<br>clean areas and raise awareness.                                                                                                   | Continue program.                                                                     |
| 9 | MUNICIPAL<br>OPERATIONS &<br>MAINTENANCE<br>GOOD<br>HOUSEKEEPING<br>MANUAL | DPS/DAVID<br>D'AMICO | Develop and<br>implement a<br>Municipal Services<br>Operations &<br>Maintenance Manual<br>(Good Housekeeping<br>Best Management<br>Practices) landscape<br>and lawn care policy.<br><br>Incorporate the<br>Manual policy<br>requirements into the<br>Employee Training<br>Program. | Manual contains 11 different BMP<br>sheets applying to all aspects of<br>Municipal O&M that impacts<br>stormwater (Lawn care, Street<br>sweeping, deicing, vehicle washing,<br>materials management, etc). | Update manual for final MS4<br>permit as needed. Train/retrain<br>staff in revisions. |

|    |                                                       |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                        |
|----|-------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10 | DEVELOP A<br>STRUCTURAL BMP<br>MAINTENANCE<br>PROGRAM | DPS/DAVID D'AMICO | <p>Inventory all municipally maintained structural BMPs.</p> <p>GPS locate the BMPs.</p> <p>Clean BMPs on an “as needed basis”.</p> <p>Obtain access agreements for BMPS not located on public property of within easements.</p> <p>Track maintenance activities for BMPs.</p> <p>Place a notice on the Town’s website that informs residents that any maintenance requests for municipally maintained detention/retention basins located within their subdivision should be directed to the DPS.</p> | <p>Work on most larger structures not under immediate distress has been deferred due to lack of funding and GIS imagery updates.</p> | <p>Identify BMP locations using existing information and new imagery and begin inventory.</p> <p>Obtain access agreements for BMPS not located on public property. Estimated that access agreements may be obtained at a rate of approx. rate of 10% per year beginning in 2016.</p> <p>Hire GIS Coordinator to assist in updates.</p> |
|----|-------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 6a. Additions

## 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)                                                                                                                     | Progress on Goal(s) – Permit Year extended<br>(Reliance on non-municipal partners indicated, if any)                                                                                                                                                                   | Planned Activities – Permit Year extended                                                                                                                                                                                                              |
|----------|--------------------------------------------------|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1        | Develop a Water Quality Strategy for 303d Waters | DPS, Board of Health, Conservation Commission | Summary of pollution prevention efforts, future needs, and responsible parties                                                         | The January 2014 IDDE Plan addresses a number of these of these considerations, as does the Municipal O&M Manual. Awaiting final permit for further action.                                                                                                            | Incorporate the preliminary TMDL strategy into the SWMP Update that will be required following the permit re-issuance.<br><br>Consider information available from Studies in the Charles River Watershed. To be updated upon new Final Permit issuance |
| 2        | Outfall Inspection in Charles stormwater-sheds   | DPS                                           | Inspect at least 70 Outfalls draining to the Charles River                                                                             | GIS Map updating with outfall inventory is complete. Additional field inspection bringing total count to 88 outfalls draining to the Charles was completed in 2015.                                                                                                    | Conduct follow-up inspections as recommended in IDDE Plan. Continue inspections and mapping of upstream system.                                                                                                                                        |
| 3        | Public Education on TMDL pollutants              | DPS, Board of Health, Conservation Commission | Revisit Existing Public Education BMPs to include additional messaging or target audiences to meet anticipated requirements of new MS4 | Educational materials (septic system brochure, pet licensing materials, yard care brochure, phosphorous use) are being revised to incorporate specific messaging related to stormwater and TMDL pollutants. See Public Education /Outreach BMPs for additional detail. | Continue existing Public Ed BMPs (see above). Upon new Final Permit reissuance, implement revisions to educational materials for residential audience and develop new materials for industrial/commercial/developer audiences.                         |
|          |                                                  |                                               |                                                                                                                                        |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                        |

### 7a. Additions

### 7b. WLA Assessment

Two TMDLs have been finalized for the Charles River Basin; these include the Final TMDL for Nutrients in the Upper/Middle Charles River, CN272.0, May 2011 and the Final Pathogen TMDL for the Charles River Watershed January 2007, CN 0156.0. Both apply to the area of Charles River located in Medway.

Concurrently, Medway is evaluating changes to its SWMP and developing its Integrated Water Resources Management Plan (IWRMP) to comply with NPDES MS4 Permit changes, TMDLs and the Massachusetts Sustainable Water Management Initiative (SWMI). Changes to the SWMP and the development of the

IWRMP are being considered in the context of all these requirements so that compliance with one program does not jeopardize another. Changes to the SWMP will include actions needed to develop and implement a Phosphorous Control Plan which will be effective in supporting achievement of the WLA for both the Nutrient and Pathogen TMDLs.

#### **Part IV. Summary of Information Collected and Analyzed**

- Number of Outfalls Inspected for Illicit Discharges: 58
- Number of Outfalls Re-sampled: 1
- Number of Illicit Discharges Found: 1 illicit discharge was identified and removed during this permit year.

#### **Part V. Program Outputs & Accomplishments (OPTIONAL)**

##### **Programmatic**

|                                                |       |  |
|------------------------------------------------|-------|--|
| Stormwater management position created/staffed | (y/n) |  |
| Annual program budget/expenditures             | (\$)  |  |
|                                                |       |  |
|                                                |       |  |

##### **Education, Involvement, and Training**

|                                                                         |               |  |
|-------------------------------------------------------------------------|---------------|--|
| Estimated number of residents 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.)  |  |
| Household Hazardous Waste Collection Days                               |               |  |
| ▪ days sponsored                                                        | (#)           |  |
| ▪ community participation                                               | (%)           |  |
| ▪ material collected                                                    | (tons or gal) |  |
| School curricula implemented                                            | (y/n)         |  |
|                                                                         |               |  |
|                                                                         |               |  |

## Legal/Regulatory

|                                                    | In Place<br>Prior to<br>Phase II | Under<br>Review | Drafted | Adopted |
|----------------------------------------------------|----------------------------------|-----------------|---------|---------|
| 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

|                                        |                    |  |
|----------------------------------------|--------------------|--|
| Outfall mapping complete               | (%)                |  |
| Estimated or actual number of outfalls | (#)                |  |
| System-Wide mapping complete           | (%)                |  |
| Mapping method(s)                      |                    |  |
| ▪ Paper/Mylar                          | (%)                |  |
| ▪ CADD                                 | (%)                |  |
| ▪ GIS                                  | (%)                |  |
| Outfalls inspected/screened            | (# or %)           |  |
| Illicit discharges identified          | (#)                |  |
| Illicit connections removed            | (# )<br>(est. gpd) |  |
| % of population on sewer               | (%)                |  |
| % of population on septic systems      | (%)                |  |
|                                        |                    |  |
|                                        |                    |  |

## Construction

|                                                                                                   |            |  |
|---------------------------------------------------------------------------------------------------|------------|--|
| Number of construction starts (>1-acre)                                                           | (#)        |  |
| 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 completed                                                                                               | (# or %) |  |
| Estimated volume of stormwater recharged                                                                                 | (gpy)    |  |
|                                                                                                                          |          |  |
|                                                                                                                          |          |  |

## 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)     |  |
| Total number of structures cleaned                                                             | (#)            |  |
| Storm drain cleaned                                                                            | (LF or mi.)    |  |
| Qty. of screenings/debris removed from storm sewer infrastructure                              | (lbs. or tons) |  |
| Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.) |                |  |
| Cost of screenings disposal                                                                    | (\$)           |  |
|                                                                                                |                |  |
|                                                                                                |                |  |

|                                                                                      |            |  |
|--------------------------------------------------------------------------------------|------------|--|
| 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)     |  |
| Cost of sweepings disposal                                            | (\$)           |  |
| Vacuum street sweepers purchased/leased                               | (#)            |  |
| Vacuum street sweepers specified in contracts                         | (y/n)          |  |
|                                                                       |                |  |
|                                                                       |                |  |

|                                                                                        |             |  |
|----------------------------------------------------------------------------------------|-------------|--|
| Reduction in application on public land of: (“N/A” = never used; “100%” = elimination) |             |  |
| ▪ Fertilizers                                                                          | (lbs. or %) |  |
| ▪ Herbicides                                                                           | (lbs. or %) |  |
| ▪ Pesticides                                                                           | (lbs. or %) |  |
|                                                                                        |             |  |
|                                                                                        |             |  |

|                                                          |                                                                                           |  |
|----------------------------------------------------------|-------------------------------------------------------------------------------------------|--|
| Anti-/De-Icing products and ratios                       | % NaCl<br>% CaCl <sub>2</sub><br>% MgCl <sub>2</sub><br>% CMA<br>% Kac<br>% KCl<br>% Sand |  |
| Pre-wetting techniques utilized                          | (y/n)                                                                                     |  |
| Manual control spreaders used                            | (y/n)                                                                                     |  |
| Automatic or Zero-velocity spreaders used                | (y/n)                                                                                     |  |
| Estimated net reduction in typical year salt application | (lbs. or %)                                                                               |  |
| Salt pile(s) covered in storage shed(s)                  | (y/n)                                                                                     |  |
| Storage shed(s) in design or under construction          | (y/n)                                                                                     |  |
|                                                          |                                                                                           |  |
|                                                          |                                                                                           |  |