

Municipality/Organization: Town of Palmer

EPA NPDES Permit Number: MA 041017

MassDEP Transmittal Number: W- X265901

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

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

Part I. General Information

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Title: Town Manager

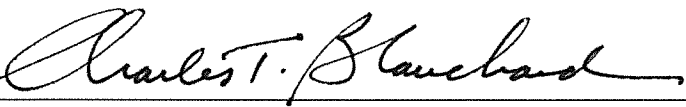
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Certification:

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: CHARLES T. BLANCHARD

Title: TOWN MANAGER

Date: 4/28/16

Part II. Self-Assessment

In Year 13, the Town of Palmer continued to be an active participant in the Central Massachusetts Regional Stormwater Coalition (the Coalition). The Coalition's work in Year 13 (which overlaps municipal fiscal years 2014 and 2015) was funded entirely by contributions of approximately \$4,000 from each of the 28 participating Towns, including Palmer.

Overview of the Coalition

The FY2014/2015 Coalition included 28 towns: Auburn, Boylston, Charlton, Dudley, Grafton, Hardwick, Holden, Hopkinton, Leicester, Millbury, Northborough, Northbridge, Oxford, Palmer, Paxton, Rutland, Shrewsbury, Southbridge, Spencer, Sterling, Sturbridge, Upton, Uxbridge, Ware, Webster, West Boylston, Westborough, and Wilbraham. The Coalition was officially formed in FY2012 with 13 members, expanding to 30 in FY2013. The FY2016 Coalition will be comprised of 31 towns with the recent additions of Framingham, Lunenburg, and Marlborough.

The Year 13 work of the Coalition focused on implementation and preparation.

- The implementation aspects included eight hours of one-on-one time, in which each member was provided with dedicated time from consultants that could be used for whatever was most needed. The Town of Palmer performed a review and update of their Illicit Discharge Detection and Elimination (IDDE) Plan and had a "Field Day" training, where we received refresher training on the online mapping and inspection system.
- The preparation aspects included work to both understand the technical components of the pending (at the time) Massachusetts MS4 Permit as well as how they will continue to afford the new Permit.
 - The group hosted a September 3, 2015 workshop by Keith Readling of Raftelis Financial Consultants, who has assisted more communities develop a stream of dedicated funding for stormwater management than anyone else. The objective was not to force the concept of a "stormwater utility", but to get community leaders thinking of stormwater funding as an enterprise, similar to how many already manage sanitary sewer funds.
 - The Coalition continues work on a Stormwater Program cost assessment for member towns, with most already being delivered. This task looks at what the community is actually spending on stormwater management, including staff labor (across many departments and positions), operations and maintenance, equipment costs (rental and depreciation), and third party vendors and consultants.

On April 15, 2015, a meeting of all member communities was held in Charlton, MA to develop a potential scope for FY2016 and determine how the group would be funded and administered going forward.

An update for all member communities was also presented at a meeting on September 3, 2015 prior to the stormwater funding workshop.

Coalition members themselves continue to be responsible for putting to use the tools developed by the Coalition.

The Coalition's Partnerships in Central Massachusetts

The Coalition continues to be actively engaged with many water quality agencies and organizations and is committed to sharing the knowledge it has developed for the benefit of other communities. These efforts are discussed in following sections as they relate to the following organizations:

- Massachusetts Department of Environmental Protection (MassDEP)
- United States Environmental Protection Agency (USEPA)

- Other Massachusetts Stormwater Coalitions
- New England Water Environment Association (NEWEA)
- Massachusetts Municipal Association (MMA)

Additional organizations and entities are mentioned elsewhere throughout this Annual Report, reflecting the wide network of knowledge and experience that the Coalition has tapped into.

Massachusetts Department of Environmental Protection (MassDEP)

The Coalition continued its partnership with the MassDEP in FY2014/2015, most recently announcing the receipt of a \$50,000 Stormwater Technical Assistance grant from the department. This grant will be used to develop training elements and outreach tools that target new or expanded elements in the new permit, and that can be used by communities across the Commonwealth.

MassDEP staff continue to attend CMRSWC Steering Committee events and make themselves available for technical assistance. The Coalition appreciates the ongoing dedication of MassDEP to work with our members so closely and collaboratively.

In FY2016, the CMRSWC hopes to develop another Interactive Qualifying Project (IQP) with students from the Worcester Polytechnic Institute (WPI). One potential concept for a FY2016 project is to work with MassDEP stormwater and solid waste staff to develop a streamlined method to determine appropriate beneficial reuse of street sweepings and/or grit from catch basin cleaning activities, thereby turning a material that can be costly to dispose into a source of revenue to our members.

United States Environmental Protection Agency

The Coalition continued collaboration with technical assistance staff in USEPA Region 1, with the goal of benefiting from knowledge and experience of the agency's staff and from its network. We appreciate the support of these agency staff, and believe this positive communication resulted in some modifications to the new MA MS4 permit (released on April 4, 2016) that make it more reasonable while still benefiting and protecting water quality.

Other Massachusetts Stormwater Coalitions

The Coalition continues to coordinate with "sister" groups with a similar stormwater focus. These include:

- The Merrimack Valley Stormwater Collaborative (coordinated by the Merrimack Valley Regional Planning Commission);
- The Neponset Stormwater Partnership (coordinated by the Metropolitan Area Planning Council and the Neponset River Watershed Association);
- The Northern Middlesex Stormwater Collaborative (coordinated by the Northern Middlesex Council of Governments);
 - The Connecticut River Stormwater Committee (through the Pioneer Valley Planning Commission); and
 - The Southeastern Massachusetts Stormwater Collaborative (coordinated by the Southeastern Regional Services Group)

Many members of these groups were invited to attend the September 2015 stormwater funding workshop, and the facilitators of these different collaboratives have made the effort to inform the other groups of events they're hosting.

Importantly, these separate regional groups met twice in Year 13- on June 23, 2015 and September 17, 2015- to compare notes on activities in progress and share ideas on future collaborations. This statewide partnership will be expanding in Year 14.

Massachusetts Municipal Association (MMA)

Members of the Coalition have been active in the MMA for years, including Robin Craver, Town Administrator for Charlton, MA and an active Coalition leader, who is the Chair of MMA's Policy Committee on Energy and the Environment. This Committee formulates policy related to stormwater, water quality, water supply, wetlands, coastal areas, and other related environmental issues and represents a way for the Coalition to learn from (and share) ideas around the Commonwealth.

Tasks Included in this Annual Report

In the following sections, descriptions of the technical tasks and resources performed by the CMRSWC in Year 13 have been separated into sections that mirror the six Minimum Control Measures (MCM's) in the 2003 Massachusetts Small MS4 Permit.

One of the more innovative tools developed by the Coalition- one that spans across multiple MCM's- is the integrated online mapping and inspection database, hosted by PeopleGIS. The database is cloud-based, and can be accessed by all 28 member communities through a desktop or tablet computer.

In Year 13, we observed that Coalition members expanded use of this resource, primarily by beginning the process of mapping linear infrastructure (like pipes and culverts) and doing more catch basin inspections using the tools. Both of these tasks are key to preparing to increase mapping and to perform the catchment evaluation process included in the 2016 MA MS4 Permit.

As noted in last year's report, this platform does not fit into just one of the MCM's. It aids communities with public education and outreach (MCM 1), as surveying is a highly-visible activity that will generate questions, and is an engaging demonstration to school groups. The integrated mapping and inspection database documents evidence of potential illicit discharges or the absence thereof (MCM 3), aids construction site stormwater control (MCM 4) by allowing for evaluation of how much sediment is contained in a sump, and makes good housekeeping (MCM 6) easier by collecting data on how often catch basins are cleaned. Other tasks and tools of the project connect to the integrated mapping and inspection database, which was designed to serve the needs of the Coalition communities well beyond the 2003 Massachusetts Small MS4 Permit. Each of the online forms is fluid- they will continue to be revised, as needed, to meet the goals of the Coalition members and future Massachusetts MS4 Permit requirements.

Minimum Control Measure 1: Public Education and Outreach

Year 13 activities included routine meetings of the Coalition's Steering Committee.

In Year 13, the Coalition purchased copies of the "Water Blues, Green Solutions" documentary (<http://waterblues.org/about>) for each member town, on DVD.

An exciting tool for public education continues to be the Coalition's Twitter account, @MAStormH2O. As of the date of this report, the Coalition's account has 96 followers, including other stormwater coalitions around the country. Information tweeted (or retweeted) by the Coalition in Year 13 addressed such water quality topics and issues as:

- Stormwater infrastructure funding
- Nutrient credits and trading
- Sharing public service announcements (PSA's) developed by our member communities and partners
- Impact of leaking sanitary sewers on stormwater and water quality
- Low Impact Development (LID) workshops and training courses held by partners in or near our member communities

Many of our member communities and regional agencies follow @MAStormH2O and retweet our information, greatly expanding the audience reached by the message. We anticipate using this tool in the future to quantify the size of the audience reached by each message, and evaluating the success of the message.

In Year 13, the Coalition expanded its efforts to educate the public and other communities about its work. This includes the following presentations and events, listed in chronological order:

- On May 12, 2015, Robin Craver (Charlton, MA) presented at the 6th Annual Water Resources Strategies Symposium, hosted by the Massachusetts Coalition for Water Resources Stewardship, sharing information on stormwater program costs and ways to create regional efficiencies.
- On May 15, 2015, a Coalition consultant did a presentation to the New England Interstate Water Pollution Control Commission (NEIWPCC) at its Board meeting in Bolton, MA.
- On June 26, 2015, Robin Craver (Charlton, MA) and a Coalition consultant did a presentation to the Central Massachusetts Regional Planning Commission at its Summer Legislative Breakfast, in Worcester, MA.
- On July 13, 2015, a Coalition consultant did a presentation to the National Association of Clean Water Agencies at its Summer Conference in Providence, Rhode Island.
- On November 18, 2015, Robin Craver (Charlton, MA) and a Coalition consultant did a presentation at the “*Community Stormwater Solutions*” conference, hosted at Worcester Polytechnic Institute by the Massachusetts Watershed Coalition.

Several Coalition members chose to use some of their “one-on-one” to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, Palmer continued to utilize water quality monitoring kits from the World Water Monitoring Challenge program (www.worldwatermonitoringday.org), purchased by the Coalition in Year 10. These kits “build public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies”. Several communities used this in Year 13 to work with teachers in their local school department or district to do outreach to elementary and middle-school aged students. The kits continue to be stored in Spencer and Shrewsbury for distribution to the Coalition members.

Palmer continued to utilize the two Enviroscapes models focused on non-point source pollution education (<http://www.enviroscapes.com/nonpoint-source.html>). One model was purchased by the Coalition in Year 10 and the second was purchased in Year 13 with a grant from NEWEA. These tools are hands-on, visual trainers to demonstrate the importance of good housekeeping and low-impact development for pollution prevention, with the objective of maintaining water quality in our communities. These tools are shared with our statewide partners, upon request.

The Coalition continued to expand its educational website, www.CentralMAStormwater.org, focused on providing information about the project to a number of audiences, including the general public, educators, and kids.

Minimum Control Measure 3: Illicit Discharge, Detection and Elimination

Several Coalition members chose to use some of their “one-on-one” time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, Palmer continued to utilize the two Leica surveying devices (purchased by the Coalition in Year 10) that can be used to map new structures with very high accuracy, using connection to a military-grade Real Time Kinematic (RTK) satellite network. The Leica and tablets can be used to directly access the online mapping and inspection system: the Leica is the most valuable for mapping outfalls, catch basins, pipe, drain manholes, BMPs, and other components of the MS4, while the tablet computers will be most valuable for ongoing inspection of the structures. These two activities serve as the foundation of IDDE. The Leica units rotate between the 28 Coalition communities on a schedule, with formal handoff between Towns documented.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

Several Coalition members chose to use some of their “one-on-one” time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

Minimum Control Measure 5: Post-Construction Stormwater Management in New Development and Redevelopment

Several Coalition members chose to use some of their “one-on-one” time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

Minimum Control Measure 6: Pollution Prevention and Good Housekeeping in Municipal Operations

Several Coalition members chose to use some of their “one-on-one” time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, Palmer continued to utilize the Stormwater Pollution Prevention Plan (SWPPP) template in the form of a word processing document. This document was developed in Year 10 and addresses elements common to all SWPPPs, including storage of materials, site inspection practices, water sampling, training, spill prevention and cleanup, Standard Operating Procedures for a number of activities, and other sections. The SWPPP template covers many types of municipal properties. This includes highway department garages and public works yards- where salt is stored and vehicle maintenance or storage is completed- as well as parks, golf courses, and cemeteries, where fertilizers and pesticides may be applied and lawn mowing activities may result in small spills. The SWPPP template includes built-in instructions to make it as simple as possible for each community to develop a SWPPP for a property, simply by deleting text that doesn't apply.

In Year 13, Palmer continued to utilize the 15 Standard Operating Procedures (SOP's) developed by the Coalition in Year 10, and intended to provide guidance on activities required or encouraged by the 2003 Massachusetts Small MS4 Permit. These SOPs addressed such diverse activities or needs as outfall inspection (both dry weather and wet weather), catch basin cleaning, erosion and sedimentation control, oil/water separator maintenance, use and storage of pesticides and fertilizers, and many more. The group developed standard forms and methodologies for these procedures, many of which were incorporated into the Integrated Online Mapping and Inspection System, described in following paragraphs.

Coalition Activities in Year 14 (April 1, 2016 – March 31, 2017)

The following are some, but not all, of the work presently underway by the Coalition in Year 14:

- *Administration.* The long-term goal of the Coalition has always been to be self-sustaining, and this was made a reality in Year 13. The Coalition's Steering Committee drafted a bylaw in Year 13 that will govern how the group makes future decisions. The group will add three new communities in Year 14, continuing to be fully self-funded. The Coalition's leadership is committed to keeping the momentum developed in recent years, and sharing the resources for the improvement of water quality in New England.
- *Funding.* The Coalition maintains a strong network of partners, and will continue to evaluate funding sources that become available, including competitive USEPA grants dedicated to MS4 communities as well as 319 and 604(b) grants appropriate for community-wide water quality projects.
- *Public Outreach and Education.* We are implementing development of training and outreach tools, made possible through a \$50,000 MassDEP Stormwater Technical Assistance grant. We are also considering developing of Coalition-specific outreach materials using FY2016 funding. Finally, the Coalition plans to increase its use of Twitter as a measurable outreach tool.
- *IDDE.* The Coalition is developing competitive pricing for its members that wish to use Environmental Canine Services to perform IDDE screening-level assessments. The catchment delineation tool initially developed during the WPI IQP Fall 2013 project will be revised, modified, finalized, and distributed for use by Coalition towns. The Request for Proposals (RFP) developed in Year 10 (for a third-party firm to perform many of the field or inspection services defined in the 15 SOP's, including outfall inspection (dry weather and/or wet weather), water quality monitoring, catch basin inspection, and other related tasks) will be re-evaluated in Year 14 to match the 2016 MA MS4 Permit. Improving the knowledge of IDDE components by many town departments will likely be a substantial component of FY2016 work.

- *Good Housekeeping.* The Coalition may coordinate an on-site demonstration of calibrating deicing equipment at a member community's highway facility. This active demonstration will provide a real-life example of the benchmarking process developed in Year 10 and encourage members to calibrate their own equipment, with a goal of reducing pounds of chloride per lane mile. The Coalition is in the initial phases of developing an IQP project with Worcester Polytechnic Institute and MassDEP to develop a pilot project for beneficial reuse of catch basin cleaning materials.

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
1	Create Stormwater Program	Public Works Planning Board Conservation Commission Board of Health Town Manager	Palmer will present to the public at public meeting Palmer's Comprehensive Stormwater Management Program	Palmer has developed two Stormwater Ordinances, which were presented public hearings on July 14, 2008 (Projects greater than one acre) and February 9, 2009 (Projects less than one acre).	Palmer will continue to evaluate its Stormwater Ordinances and adjust them to provide adequate protection of local bodies of water.
Revised					
2	Create Stormwater Program	Town Manager Public Works	Palmer will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604(b) Grant Program, Lakes & Ponds Grant Program) and apply for assistance in implementing portions of Palmer's Comprehensive Stormwater Management Program, including public education and outreach	<p>The Town of Palmer has joined an intermunicipal agreement with 29 other communities for regionalizing municipal stormwater management in central Massachusetts through collaborative education, data management and policy development.</p> <p>The Town of Palmer continues to be an active participant in the Central Massachusetts Stormwater Coalition and continues to work with the 29 other communities to improve the town's stormwater programs.</p>	The Town of Palmer will continue to be an active participant in the Central Massachusetts Stormwater Coalition and continues to work with the 29 other communities to improve the town's stormwater programs.
Revised					

3	Address Specific Groups	Town Manager Public Works Conservation Commission	Distribute EPA and other relevant educational brochures to targeted audiences. Distribution points include Town Hall, Library and Transfer Station, Conservation Commission will sponsor biodiversity days at Palmer High School	The Town has received EPA educational material on disk for easy printing and distribution. Brochures regarding stormwater and sewers are available at the Palmer Town Building, Senior Center, Library and Recycling center.	The Town will continue to offer current educational materials to the public on the protection of its water bodies that it receives from the CMSWC.
Revised					
4	Target groups likely to impact stormwater.	Town Manager Public Works	Brochures targeting specific audiences and activities will be available. These target groups include homeowner and lawn maintenance activities, disposal of household waste, and pet maintenance	The Town continues to offer current educational materials to the public on the protection of its water bodies that it receives from the CMSWC.. Water Department posts Water Conservation Tips on the town website, including measures to reduce outdoor waste. Announcements of events concerning leaf disposal and composting are also posted on the town website and attached to this report. The Town also posts education links and announcements for hazardous waste disposal on their website.	The Town will continue to make these and other material available. The Town will continue to offer current educational materials to the public on the protection of its water bodies that it receives from the CMSWC.
Revised					
5	Identify alternative information sources	Town Manager MIS Department	Palmer will post links to stormwater BPMs and other water quality education resources, including EPA and DEP on its website: www.townofpalmer.com	Palmer has identified an posted links to EPA and DEP stormwater regulations and other water quality education resources on its website: www.townofpalmer.com The Town's website includes links to local water departments and water quality reports.	Palmer will continue to locate new educational sources to post to its website as well as maintain the links to current resource materials.
Revised					

6	Identify alternative information sources	Town Manager MIS Department	Palmer will also post links on its website to the Chicopee River Watershed Association @ www.chicopeeriver.org .	The Town of Palmer has posted links from the CMSWC and will continue to make this information available.	This effort will continue into 2017.
Revised					

7	Utilize local public access channel	Town Manager	Public Meeting notice for the meeting to review Palmer's Comprehensive Stormwater management Program will be posted on Palmer's website	Public meeting notices were posted on the town website and the public meetings reviewing Palmer's Comprehensive Stormwater Management Program (held July 14, 2008 and February 9, 2009) aired on Palmer's local access channel.	The town continues to post announcements for public forums regarding stormwater on their website and public access when applicable.
8	Develop, conduct and document educational programs	Town Manager Liaison	The Town of Palmer will appoint a liaison to the Chicopee River Watershed Council to disseminate information to the Town on programs and activities	The Town of Palmer has not received any contact from the Chicopee River Watershed Council	The Town of Palmer's Conservation Agent has been actively evaluating issues that pertain to the protection of the Chicopee River Watershed and will continue those efforts
9	Promote Household Waste Recycling	Public Works Board of Health	The Town of Palmer will work with the Town of Monson and the Town of Wilbraham and the Board of Health to continue to sponsor Regional Hazardous Waste Collection Days.	Palmer holds monthly Recycling Events the first Saturday of each month, published on the town website. Recycling announcements have been posted to the town's website, along with a typical month's calendar showing the monthly recycling event. The Town of Palmer maintains an ongoing partnership with the Town of Wilbraham for Hazardous Waste Collection. Every September there is a multi-community event for hazardous waste. Palmer participated in 2015 and plans to remain involved.	Palmer will continue to hold and advertise monthly Recycling Events as well as continue the multi-community partnership for Hazardous Waste Collection. The Town of Palmer is currently evaluating bids for townwide single stream recycling services.

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
10	Storm drain stenciling	Public Works	Palmer will work with local lake and Scout groups to develop a stenciling program. Stenciling will target Palmer's subwatersheds.	Stenciling was completed during the original 5-year permit term; No additional activities took place this permit year.	The Town will continue to identify and support watershed protection activities involving local student and community groups.
Revised					
11	Community clean-ups	Public Works Conservation Commission	Town of Palmer will encourage local stream team cleanups with local residents and area Scout groups. Town will provide solicitation of sponsors and notice of events on local access channel and website	The Hampden County Sheriff's Department provides manpower for riverbank cleanups several times a year. The Palmer DPW provides trucks for waste pickup. Local Boy Scouts clean up the banks of at least one river or stream each year.	The Town continues to support and encourage local cleanups with local residents.
Revised				Palmer Events Planning hosted a Pick-up Palmer Day in May.	
12	Community clean-ups	Public Works	Town will provide trucks and other material to support cleanup efforts and disposal of materials.	The Town of Palmer accepts yard waste and materials from town cleanup efforts at the Burleigh Park composting site and at the town DPW yard.	The Palmer DPW supports residents in picking up garbage from streets, curbs, sidewalks and drainage areas along roadways, and will continue to support community cleanup efforts.
Revised				The Palmer DPW provides transportation for waste pickup during school-based Earth Day cleanups.	

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
13	Inventory and mapping of storm drain system	Public Works	Palmer will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604 (b) Grant, Lakes & Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of Palmer's Comprehensive Stormwater Management Program, including public education and outreach.	<p>The Town of Palmer has joined an intermunicipal agreement with 29 other communities for regionalizing municipal stormwater management in central Massachusetts through collaborative education, data management and policy development.</p> <p>As part of the Town's CSO projects, a number of stormwater catch basins and outfalls have been mapped. The town is seeking interns to preform the mapping of the remaining storm drain system.</p>	<p>The Town of Palmer along with the Conservation Commission will continue to seek funding opportunities to support its protection of local bodies of water. The Town will also be working with the Municipal Stormwater Management Collaborative to identify funds.</p> <p>As part of the Town's CSO projects, a number of stormwater catch basins and outfalls have been mapped. The town is seeking interns to preform the mapping of the remaining storm drain system.</p>
14	Mapping and identification of outfalls and receiving waters.	Public Works Board of Assessors	Palmer will develop and implement a plan to map all outfalls and receiving bodies of water, contingent on Town Council approval of funding.	<p>All known outfalls within Palmer's CSO area were mapped during the original 5-year permit term and are inspected annually to make sure they are in proper working condition.</p> <p>Palmer's Wastewater Treatment Plant personnel maintain the outfall maps that have been completed</p>	<p>The Town will continue to monitor for unknown outfalls and maintain all known outfalls in the CSO area.</p> <p>Through the CIC Grant, the town has access to a GPS monitor and water testing instruments to track and test known outfalls.</p>

15	Identification/description of problem areas	Public Works	Palmer will develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan, contingent on Town Council approval of funding	<p>Palmer developed an Illicit Connections and Discharges to the Municipal Storm Drain Ordinance, which was presented at a public hearing on July 14, 2008 and was passed by the Town Council on August 11, 2008.</p> <p>Palmer's Wastewater Treatment Plant personnel perform quarterly inspection of CSO outfalls and outfalls that were abandoned during or prior to the Town's CSO separation project. Suspended flows are immediately investigated for source identification and removal.</p>	Quarterly inspections on all CSO outfalls and outfalls abandoned during or prior to the Town's CSO separation project will continue.
16	Enforcement procedures addressing illicit discharges	Planning Board Town Council Board of Health	Palmer will review whether local authority is appropriate and able to respond to potential illicit discharges. New ordinances, if necessary, will be proposed to Town Council.	The Town has local regulations prohibiting illicit discharges into the storm drain system	The Town will continue to enforce and critique its illicit discharge regulations.
17	Public information program regarding hazardous wastes and dumping	Public Works Board of Health	Palmer will provide educational brochures to residents promoting proper disposal household hazardous wastes and conditions for regional collections	The Town maintains an active partnership with Wilbraham for disposal of household waste.	This partnership with Wilbraham will continue into the future.
18	Initiation of recycling programs	Public Works Board of Health	Palmer will apply for funding assistance from DEP's Recycling Grant Program for assistance in public education and in the purchase of recycling	The Town of Palmer utilized printed materials from MADEP to encourage recycling by Palmer residents and businesses.	The Town will continue to identify funding sources and opportunities to encourage recycling. The town is currently in the process of evaluating proposals for town wide single stream recycling.

			materials.		
19	Watershed assessments and studies	Public Works Conservation Commissions Board of Health	Palmer will identify opportunities for funding assistance from DEP's 604(b) and 319 grant programs and the Department of Environmental Management's Lakes and Ponds Grant Program to support watershed assessment and implementation activities. Tasks can include design and installation of stormwater BMPs and public outreach including storm drain stenciling. Emphasis will be on assessments and remediation of stormwater related problems.	Palmer continues to identify funding opportunities to support its protection of local bodies of water.	There is potential that limited funding for a watershed assessment is forthcoming from a program initiated from the Pioneer Valley Planning Commission (PVPC).
20	Watershed assessments and studies	Public Works Palmer Water & Fire Districts	The Town of Palmer will encourage the Palmer Water Districts to apply for funding assistance from DEP's Source Water Protection Program for grant assistance to develop wellhead protection plans and stormwater management plans within Zone II. These plans can include stormwater management	Palmer implemented town-wide Storm Water Management Plans during Permit Year 6.	The Town of Palmer will continue to encourage the Water Districts to seek funding for individual Zone II Storm Water Management Plans.

			programs. The proposed tasks will include a public education component.		
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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
21	Ordinance: Storm water management regulations for construction sites 1 acre or larger	Planning Board Conservation Commission Town Council Board of Health Zoning Board of Appeals	Palmer will review model ordinances developed by DEP in consultation with the Attorney General's Office.	Storm Water Management regulations were passed during Permit Year 6.	No additional action is planned for the BMP.
Revised					

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
22	Ordinance: Require post-construction runoff controls	Planning Board Conservation Commission Town Council Board of Health Zoning Board of Appeals	Palmer will review model ordinances developed by DEP in consultation with the Attorney General's Office.	The Planning Board rules and regulations for all new developments require a stormwater management plan during and post construction	No additional action is planned for this BMP.
Revised					

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
23	Develop a municipal Operations and Maintenance Plan	Public Works	Using regulations from DEP and EPA, Palmer will develop and update an operations and maintenance plan to include proper disposal of street sweepings, catch basin cleanout, snow disposal, roadway deicing procedures, vehicle washing, and outside storage of materials.	A formal O&M plan is still being developed Street sweeping occurs from April to October each year. Palmer's DPW cut down the rate of salt and sand over the permit year during winter perception to limit the amount of material buildup during spring melt.	The Town of Palmer's DPW and WWTP personnel will continue their efforts to finalize the O&M Plan.
Revised					
24	Develop a municipal Operations and Maintenance Plan	Public Works	Palmer will implement a formal inspection program, including maintenance logs and scheduling, for catch basin cleaning, repairs, and new installation.	A formal inspection is being developed as part of the formal O&M Plan. Palmer owns a vacuum truck, which is used by the DPW and WWTP personnel for catch basin cleaning on a daily basis. Structural conditions or suspended illicit discharges are noted for future maintenance or follow-up action respectively. Palmer's DPW performs manhole inspections on a regularly scheduled basis and records results per MIIA recommendations.	Palmer will continue its current inspection and cleaning routine while the O&M Plan is being developed
Revised					

25	Develop and implement training programs for municipal employees	Public Works	Palmer will send a minimum of 3 public works employees annually to training seminars sponsored by MassDOT, BayState Roads, and other relevant agencies or vendors.	During the past year, DPW employees have participated in the following training sessions: Flagmen training, hot mix asphalt inspection, dig-safe training and NEWEA specialty conferences.	The Town will continue to send employees to relevant training seminars and forums.
Revised					
26	Review storm drainage infrastructure needs	Public Works	Palmer will incorporate storm drain infrastructure review in Palmer's Chapter 90 project utilization	Palmer continues to identify opportunities for storm sewer infrastructure improvements in connection with Chapter 90 projects. The town has conducted a Sewer Replacement Project which included the installation of 36 new catch basins throughout town.	Palmer will continue to identify opportunities for storm sewer infrastructure improvements in connection with Chapter 90 projects.
Revised					

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 13 (Reliance on non-municipal partners indicated, if any)	Planned Activities
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

Part IV. Summary of Information Collected and Analyzed

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2014 through March 31, 2015)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	No
Annual program budget/expenditures **	(\$)	None
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	70%
Stormwater management committee established	(y/n)	Yes (Regional)
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Yes
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	Regional
▪ material collected **	(tons or gal)	Not Tracked
School curricula implemented	(y/n)	No

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with "X")					
▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	40%
Estimated or actual number of outfalls	(#)	25
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	40%
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	CSOs Only
Illicit discharges identified **	(#)	33
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and (est. gpd)	3 700 gpd
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	3 700 gpd
% of population on sewer	(%)	80%

% of population on septic systems	(%)	20%
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Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	0
Site inspections completed **	(# or %)	0
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	0

Post-Development Stormwater Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1
Qty of structures cleaned **	(#)	120
Qty. of storm drain cleaned **	(%, LF or mi.)	230 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	145,740
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	0
• Vacuum truck(s) owned/leased	(#)	1
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	0
• % Structures cleaned with vector **	(%)	100%

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	No
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0%

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

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

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	
Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	

Month & Year 2015			OPERATION CODES						SITE DESCRIPTION	
			1- Jet Rod		7- Root Cutting		A- Catch Basin F- Pump Station			
Vehicle # V307			2- Vactored		8- Root Foam		B- Mainline G- POTW			
			3- TV Inspect		9- Hand Rod		C- Manhole H- CSO's			
			4- Visual Inspect		10- Cleaned Bas		D- Inteceptor I- Drainage			
			5- GIS		11- Repair		E- Syphon J- Other			
			6- Dye Test		12- Other					
Date	Name(s)	Site Desc p	P/M or Emer	Overtim e Y/N	Operatio n Code	Start House #	Stop House #	Distanc e in Feet	Location	Description of Work
3/12/2015	KEVIN,JIM,KENNY	I	EM	N	1,2				THORNDIKE ST PALMER	IN PARKING LOT TO STREET WAS BLOCK JET ROD LINE TO OPEN UP LINE
3/12/2015	KEVIN,JIM,KENNY	A	EM	N	10				THORNDIKE ST PALMER	CLEAN CATCHBASIN ON THORNDIKE ST PALMER BY CAR WASH
4/6/2015	JIM,RALPH	C,I	EM	N	1,2				SOUTH MAIN ST BONDSVILLE	LILLY POND WAS BLOCKED. JET ROD ALL PIPES IN AREA. LINES OPEN UP
4/6/2015	JIM,RALPH	A	PM	N	10				SOUTH MAIN ST BONDSVILLE	CLEAN UP AROUND CATCHBASIN PINE & SOUTH MAIN ST BONDSVILLE
4/9/2015	JIM,RALPH	A	PM	N	10				SOUTH MAIN ST BONDSVILLE	CLEAN CATCHBASIN PINE & SOUTH MAIN ST BONDSVILLE
4/9/2015	JIM,RALPH	A	PM	N	10				SYKES ST BONDSVILLE	CLEAN CATCHBASIN IN FRONT OF STATION # 4
4/9/2015	JIM,RALPH	A	PM	N	10				STINSON ROAD THORNDIKE	CLEAN 2 CATCHBASIN STINSON RD AND GATE ST THORNDIKE
4/9/2015	JIM,RALPH	A	PM	N	10				LAWRENCE ST PALMER	CLEAN 2 CATCHBASIN LAWRENCE ST PALMER
5/27/2015	JIM,KEN B	A	PM	N	10				HOBBS ST THORNDIKE	CLEAN 6 CATCHBASIN HOBBS& HARDING ST
5/27/2015	JIM,KEN B	A	PM	N	10				HILL ST THORNDIKE	CLEAN 4 CATCHBASIN HILL ST
5/27/2015	JIM,KEN B	A	PM	N	10				CHURCH ST THORNDIKE	CLEAN 2 CATCHBASIN CHURCH ST
5/28/2015	JIM,KEN B	A	PM	N	10				THREE RIVER ROAD THREE RIVER	CLEAN 4 CATCHBASIN ON THREE RIVER RD 3RIVERS
5/28/2015	JIM,KEN B	A	PM	N	10				SPRINGFIELD ST THREE RIVER	CLEAN 2 CATCHBASIN ON THREE RIVER RD AND SPRINGFIELD ST 3RIVERS
5/28/2015	JIM,KEN B,KEVIN,KEN	A,B,C	EM	N	2,10				DEPOT ST PALMER	CLEAN OUT MANHOLE AND CATCHBASIN
6/16/2015	JIM,KEN B,	A	PM	N	10				SHEARER ST PALMER	CLEAN CATCHBASIN SHEARER ST NEAR NURSING HOME
6/16/2015	JIM,KEN B,	A	PM	N	10				LAWRENCE ST PALMER	CLEAN 2 CATCHBASIN LAWRENCE ST PALMER
6/17/2015	JIM,KEN B	I	PM	N	10	85			85 BEECH ST PALMER	CLEAN DROP INLET 85 BEECH ST PALMER
6/17/2015	JIM,KEN B	A	PM	N	10				BEECH ST PALMER	CLEAN 3 CATCHBASIN BEECH ST PALMER

6/17/2015	JIM,KEN B	A	PM	N	10	39	26	39 FLYNT ST PALMER	CLEAN 5 CATCHBASIN 39 FLYNT ST TO 26 FLYNT ST PALMER
6/22/2015	RESION CONSTR	A	PM	N	2,11			WRIGHT ST PALMER	CLEAN OUT CATCHBASIN WRIGHT ST PALMER
6/22/2015	JIM,DENNIS	A,I	PM	N	1,2			NORTH MAIN ST PALMER	NEAR STATION # 1 JET ROD DRAIN LINE IN BETWEEN CATCHBASIN TO OPEN LINE UP
6/24/2015	JIM,MIKE	C,I	PM	N	2	92		92 LONGVIEW ST PALMER	75 LONGVIEW ST CLEAN OUT MANHOLE
6/30/2015	JIM,KEN B	A,I	PM	N	1			MAIN ST THREE RIVER	JET ROD DRAIN LINE FROM RAMDONS PACKAGE STORE BACK TO RIVER
7/14/2015	JIM,KEN B	A	PM	N	10	1045		1045 CIRCLE DRIVE PALMER	CLEAN 2 CATCHBASIN 1045 CIRCLE DRIVE PALMER
7/14/2015	JIM,KEN B	A	PM	N	10	1035		1035 CIRCLE DRIVE PALMER	CLEAN 1 CATCHBASIN 1035 CIRCLE DRIVE PALMER
7/14/2015	JIM,KEN B	A	PM	N	10	1040		1040 CIRCLE DRIVE PALMER	CLEAN 1 CATCHBASIN 1040 CIRCLE DRIVE PALMER
7/14/2015	JIM,KEN B	A	PM	N	10			EAST PALMER PARK DRIVE	CLEAN CATCHBASIN ON CORNER OF EAST PALMER PARK DRIVE & CIRCLE DRIVE
7/14/2015	JIM,KEN B	A	PM	N	10	76		76 EAST PALMER PARK DRIVE	CLEAN 1 CATCHBASIN 76 EAST PALMER PARK DRIVE PALMER
7/14/2015	JIM,KEN B	A	PM	N	10			EAST PALMER PARK DRIVE	CLEAN 2 SMALL CATCHBASIN EAST PALMER PARK DRIVE
7/15/2015	JIM,KEN B	A	PM	N	10			EAST PALMER PARK DRIVE	CLEAN 3 CATCHBASIN EAST PALMER PARK DRIVE AND RT 20 PALMER
7/15/2015	JIM,KEN B	A	PM	N	10			MASON ST PALMER	CLEAN CATCHBASIN MASON ST AND RT 20
7/15/2015	JIM,KEN B	I	PM	N	1,2,11			MOUNTAIN DUMPLIN ST PALMER	HELP HIGHWAY ON MT DUMPLIN ST DROP IN LET TRY JETTING TOO MANY ROOTS IN LINE
7/29/2015	MIKE,JIM	A	PM	N	10			DEPOT ST BONDSVILLE	CLEAN OUT 2 CATCHBASIN DEPOT ST BONDSVILLE CLEAN UP LONG BRIDGE AND SIDE WALK TOO
7/29/2015	MIKE,JIM	A	PM	N	10			MOUNTAIN DUMPLIN ST PALMER	CLEAN 2 CATCHBASIN ON MT DUMPLIN ST PALMER . ALL THE DRAIN LINES IN AREA ARE FULL NEED TO GO BACK
8/13/2015	JIM,KEVIN	A,I	PM	N	1			BELCHERTOWN ROAD THREE RIVER	TRY JETTING MANHOLE AT F&D TOOLS DID NOT GO ANYWHERE
8/20/2015	JIM,MIKE	A	PM	N	10			MAIN ST BONDSVILLE	BONDSVILLE WAS BACK UP FROM BRICK FALLING IN BLOCKING PIPE
8/20/2015	JIM,MIKE	A	PM	N	10			MAIN ST BONDSVILLE	CLEAN UP CATCH BASIN AT MAIN & DEPOT ST BONDSVILLE
8/20/2015	JIM,MIKE	A	PM	N	10			HIGH ST THORNDIKE	CLEAN UP 2 CATCHBASIN ON HIGH ST NEAR HIGH SCHOOL
9/2/2015	JIM,MIKE	A	PM	N	10	2062	2108	PALMER ROAD THREE RIVER	CLEAN 4 CATCHBASIN ON PALMER ROAD THREE RIVER
9/3/2015	JIM,MIKE	A	PM	N	10	2126	2144	PALMER ROAD THREE RIVER	CLEAN 4 CATCHBASIN ON PALMER ROAD THREE RIVER
9/8/2015	JIM,MIKE	A	PM	N	10			PALMER ROAD THREE RIVER	CLEAN 3 CATCHBASIN ON PALMER ROAD THREE RIVER
9/8/2015	JIM,MIKE	A,I	PM	N	1,2			PALMER ROAD THREE RIVER	CLEAN 2 DRAIN LINE ON PALMER ROAD THREE RIVER

9/8/2015	JIM,MIKE	A	PM	N	10	45			45 FORD ST THREE RIVER	45 FORD ST CLEAN CATCHBASIN TOP CAVING IN NEED OF REPAIR
9/8/2015	JIM,MIKE	A	PM	N	10	12			12 CHENNEY ST THREE RIVER	CLEAN CATCHBASIN 12 CHENNEY ST THREE RIVER
9/14/2015	JIM,MIKE	C,I	PM	N	2	92			92 LONGVIEW ST PALMER	75 LONGVIEW ST CLEAN OUT MANHOLE
9/23/2015	JIM,MIKE,KEVIN,KEN	C,I	PM	N	2,3				HIGH ST THORNDIKE	CLEAN OUT MANHOLE FROM BROOK. SO THEY CAN CAMERA LINE BEHIND JUNCTION
9/25/2015	JIM,KENNY B	A	PM	N	10				NORTH ST THREE RIVER	CLEAN OUT 9 CATCHBASIN ON NORTH ST THREE RIVER PLUS DROP INLET
9/30/2015	JIM,RALPH	A	PM	N	10				196 BRECKRIDGE ST PALMER	CLEAN OUT CATCHBASIN 196 BRECKRIDGE ST AND TOP ON THRU OUT TOWN BECAUSE OF RAIN COMING
10/21/2015	JIM,KEN B	A	PM	N	10	2029			2029 MAIN ST THREE RIVER	CLEAN OUT CATCHBASIN IN FRONT OF OFFICE ON MAIN ST THREE RIVERS
10/21/2015	JIM,KEN B	A	PM	N	10				KELLY ST THREE RIVER	CLEAN OUT 7 CATCHBASIN ON KELLY & HIGH ST THREE RIVER