

APR 30 2015

Municipality/Organization: Town of Leicester, MA
EPA NPDES Permit Number: MAR041202
MassDEP Transmittal Number: X265673
Annual Report Number Year 12
& Reporting Period: April 1, 2014 – March 31, 2015

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**NPDES PII Small MS4 General Permit
Annual Report
(Due: May 1, 2015)**

Part I. General Information

Contact Person: Thomas Wood, Superintendent Title: Highway Department
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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: Kevin Mizlikar
Title: Town Administrator
Date: 4/16/15

Part II. Self-Assessment

The Town of Leicester's Highway Department continues to take the lead on compliance with the Town's MS4 Permit.

In year 12 Leicester received and analyzed the new draft Massachusetts MS4 Permit. The Town submitted comments to USEPA regarding comments and concerns on the draft Permit.

Leicester continued moving forward in its illicit discharge program in Year 12. Highway Department staff have started catchment delineation and confirming drainage connections. The town has also started an outline for its written IDDE program. The Town passed an illicit connection bylaw which has been enacted.

Operations and Maintenance activities completed by the Town's Highway Department continue to reduce potential for pollution from stormwater. During this period, all catch basins on 131 streets in Town were cleaned, and 198 Town streets were swept. The Town uses catch basin cleaning activities as an opportunity to identify potential illicit discharges. The Highway Department also cleaned 14 miles of sidewalks in the Town, including those along Route 9, which is a State Highway.

CMRSWC CIC Grant FY2014 Summary of Activities Year 12: April 1, 2014 – March 31, 2015

In Year 12, the Town of Leicester continued to be an active participant in the Central Massachusetts Regional Stormwater Coalition (the Coalition). The Coalition's work in Year 12 was funded by a \$80,000 fiscal year 2014 (FY2014) Community Innovation Challenge (CIC) grant from the Massachusetts Executive Office of Administration and Finance. This grant was supplemented by a contribution of approximately \$4,000 from each of the 28 participating Towns, including Leicester.

Overview of the Coalition

The FY2014 Coalition included 28 towns: Auburn, Boylston, Charlton, Dudley, Grafton, Hardwick, Holden, Hopkinton, Leicester, Millbury, Monson, Northbridge, Northborough, Oxford, Palmer, Paxton, Rutland, Shrewsbury, Southbridge, Spencer, 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. Its FY2014 work expanded efforts initiated in previous years to comply with requirements anticipated in the new Massachusetts MS4 Permit when it becomes final, which is expected sometime in 2016 or 2017. The Coalition's FY2014 efforts were facilitated by the consulting firms of Tata & Howard, Inc., and Verdant Water, supported by vendor PeopleGIS. However, the Coalition members themselves continue to be responsible for putting the tools developed by the Coalition to use.

The Coalition was honored as a recipient of the first Annual “Best Stormwater Idea in New England”, also known as a STORMY Award (*see image below*). This honor was bestowed by the New England Stormwater Collaborative, a joint effort of the New England Water Environment Association (NEWEA), the New England Chapter of the American Public Works Association (APWA), and the New England Water Works Association (NEWWA). A representative from the Town of Uxbridge accepted this honor at a ceremony in Worcester, MA on April 1, 2015.



Figure 1: CMRSWC's "STORMY Award" for Collaborative Efforts in Stormwater Management

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, formally including budget in its FY2014 CIC Grant Application to support and assist in development of the stormwater-focused Interactive Qualifying Project (IQP) with four students at the Worcester Polytechnic Institute (WPI). Kickoff for this partnership began in September 2014 with a meeting at MassDEP's office in Worcester, MA. The IQP completed in fall 2014 was the fourth such project the Coalition has done in conjunction with MassDEP and WPI.

This IQP included activities that will benefit all Coalition towns, especially Holden, Millbury, and Southbridge, all of which volunteered for an intensive evaluation. Representatives from these three towns worked with the WPI students to compile a detailed summary of the full cost of their stormwater programs. The cost evaluation was developed in conjunction with the Coalition's consultants, and included not just line items budgeted by public works (or highway) departments, but also staff labor, operations and maintenance tasks, waste disposal fees, reprographics and media, legal counsel, site plan reviews, construction and post-construction inspections, and other tasks. Some of these activities are core components of a town's stormwater program, but may be managed or budgeted by planning departments, conservation commissions, boards of health, code enforcement, or other entities and therefore not generally included in assessments.

The comprehensive report prepared by the WPI IQP students was presented to their university sponsors in December 2014 and can be downloaded at: [www.centralmastormwater.org/pages/CRSC_documents/Attachment B WPI Cost Analysis of the 2014 MA MS4 DraftPer.pdf](http://www.centralmastormwater.org/pages/CRSC_documents/Attachment_B_WPI_Cost_Analysis_of_the_2014_MA_MS4_DraftPer.pdf). The findings of this report were also presented by the students to the 495/MetroWest Partnership in spring 2015. The framework used by the WPI students for the cost evaluation features into the ongoing stormwater program cost task discussed under *Coalition Activities in Year 13* (located at the end of this narrative.)

In addition to the stormwater program cost component, the Fall 2014 WPI students performed water quality monitoring in Coalition Communities.

Earlier in Year 12, a different team of WPI IQP students did inspection and mapping work in several Coalition towns, including Upton, MA, shown below, under the supervision of the Towns and consultants. Data from these activities was entered directly into the online mapping and inspection system.



Figure 2: The Coalition's Spring 2014 WPI IQP Student Team Inspecting and Mapping Stormwater Infrastructure in Upton, MA

The Coalition appreciates the ongoing dedication of MassDEP to work with our members so closely and collaboratively.

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.

Many members of the Coalition attended the USEPA's October 2014 workshops on the 2014 Draft Massachusetts MS4 Permit, and several attended the formal public hearing on this draft permit on November 19, 2014 at the Leominster Public Library. At this public hearing, Coalition members spoke about the need for the final Permit to focus on provisions that maintain (and improve) water quality, not those that cause administrative burden without demonstrated benefits. Our comments at this hearing also requested USEPA's assistance in educating community leaders, such as selectmen and Town Administrators, about the increased need for multiple town departments and staff members to work together to comply with expanded provisions, such as illicit discharge detection and elimination (IDDE) and good housekeeping. The Coalition submitted formal comments on the 2014 Draft Massachusetts MS4 Permit, which can be found at http://www.centralmastormwater.org/pages/CRSC_documents/MS4PermitComments.

The Coalition reached out to USEPA's Newton Tedder to suggest ways to present the drivers of expanded stormwater management to town leaders and decision makers at the "Roofs, Roads, Runoffs and Regulations: New Standards for Treating Stormwater and Drinking Water" session of the Massachusetts Municipal Association's Annual Conference in Boston on January 23, 2015. The approach resulted in an effective update to these leaders (who may be concerned about the scope and

financial impacts of the proposed permit)- one that empowered them to serve as stormwater outreach resources in their own communities.

The Coalition continued to communicate with USEPA Region 1's Kyra Jacobs and Gina Snyder during Year 12. Ms. Jacobs is a connection to agency staff who work to protect water resources, and has been a positive advocate of the importance of stormwater management in accomplishing this goal. We will continue to engage with Ms. Jacobs as competitive grants for regional MS4 compliance work may become available from the agency in the near future. Ms. Snyder has served as an ongoing resource for the Coalition and its consultants about agency resources, most recently the approval of easy-to-use field kits for ammonia, which we purchased and distributed in Year 12. We appreciate the support of these agency staff.

Other Massachusetts Stormwater Coalitions

The Coalition continues to coordinate with "sister" groups with a similar stormwater focus that are also funded at least in part by CIC Grants. These include:

- The Merrimack Valley Stormwater Collaborative (coordinated by the Merrimack Valley Regional Planning Commission);
- The Neponset Valley Regional Stormwater Collaborative (coordinated by the Metropolitan Area Planning Council); and
- The Northern Middlesex Stormwater Collaborative (coordinated by the Northern Middlesex Council of Governments)

Administrators from each of these groups are invited to attend Coalition Steering Committee meetings. Further, the Coalition coordinated with each of these "sister" coalitions during preparation of its comments on the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit to ensure consistency in suggestions and revisions submitted to the US EPA.

Members of the Coalition were invited to attend training sessions the Merrimack Valley Stormwater Coalition hosted in March and April 2015. We shared digital versions of the Coalition's stormwater inspection forms with both the Neponset Valley Regional Stormwater Collaborative and the Northern Middlesex Stormwater Collaborative, and the latter has also benefitted from the structure of the online mapping and inspection system we developed and implemented in Years 10 and 11.

New England Water Environment Association (NEWEA)

The Coalition was pleased to receive a \$2,000 competitive grant from the NEWEA Humanitarian Assistance & Grants Committee in September 2014. This grant was used to purchase a second Nonpoint Source hands-on educational EnviroScape model (www.envirosapes.com/nonpoint-source.html) for use by Coalition members (the first was purchased in Year 10 with funds from the first CIC Grant).

The photo below was taken at the Coalition's October 7, 2014 training workshop for CMRSWC communities, and shows Todd Girard (Conservation Agent in Charlton, MA) demonstrating to other members how the EnviroScape table can be used as an education tool for kids of all ages, as well as adults. This train-the-trainer format increases confidence of our members to do outreach on the topic of stormwater pollution prevention in their own communities.



Figure 3: CMRSWC Members Learn How to Demonstrate Stormwater Pollution Prevention Using the Coalition's Nonpoint Source EnviroScape model

With the purchase of this second model, the CMRSWC can make this popular resource more readily available across the substantial geographic spread of our 28 municipal members. The presence of second unit also allows towns to easily demonstrate the impacts of stormwater pollution and ways to prevent it, showing the resulting differences in water quality when Best Management Practices (BMPs) are installed on one unit, but not on the other unit. One model is stored in Charlton, MA, and the other stored in Shrewsbury, MA to facilitate any member town having easy access to the tool.

The NEWEA grant award exceeded the Coalition's application, so remaining funds will be used to replenish the consumable materials used in the demonstration, including food coloring, baking soda, clay, and sponges.

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 serves on 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.

In Year 12, the Coalition participated on the "*Underwater: Financing New Regulations*" session at MMA's Annual Conference in Boston on January 24, 2015, discussing how regionalization can be appropriate for stormwater management.

Finally, the Coalition coordinated with MMA during preparation of its comments on the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit to ensure consistency in suggestions and revisions submitted to the US EPA.

Tasks Included in this Annual Report

In the following sections, descriptions of the technical tasks and resources made possible by the CIC grant funding 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. Below is a screen shot of the platform showing the extent of the 28 Coalition communities.



Figure 4: CMRSWC's Online Mapping and Inspection Platform

We were pleased to see the increased use in Year 12 by Coalition members of this resource, both in terms of inspections of existing infrastructure (such as outfalls) and mapping additional infrastructure, such as catch basins and pipe (a linear feature added in Year 11). Newer Coalition communities (those that joined in FY2013) continue to upload GIS shapefiles to the platform, managing their stormwater system infrastructure information in one location.

An investment in Year 12 intended to increase use of the online mapping and inspection platform was the purchase of new Samsung tablet devices for each community that are faster, allowing data to load more quickly than the ASUS tablets purchased in FY2012.

We believe that the mapping and inspection tool will be used increasingly as town staff members become comfortable with the platform, realize how easy it is to use, and see how it facilitates compliance and documentation.

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 12 activities included routine meetings of the Coalition's Steering Committee, a day-long refresher training workshop (and FY2014 Kickoff Meeting) on October 7, 2014, and a workshop on November 12, 2014 to educate members about the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit and identify concerns. Leicester participated in all of training workshops, reviewed deliverables, and served other key roles as described in this Annual Report.

An exciting tool for public education that was rolled out in Year 12 is the Coalition's Twitter account, [@MAStormH2O](#). As of the date of this report, the Coalition's account has 67 followers, including other stormwater coalitions around the country. Information tweeted (or retweeted) by the Coalition in Year 12 addressed such water quality topics and issues as:

- Sustainable infrastructure resources
- APWA's Public Works Week outreach activities
- Pet waste management
- Available webinars and training events
- Erosion control practices
- Green infrastructure
- Appropriate fertilizer application
- Environmentally-friendly best management practices for snow and ice control
- Drought and innovative water recycling/reclamation efforts
- Proposed changes to definition of Waters of the US
- USEPA's "WaterSense" program
- The role of public education in developing successful stormwater funding programs.

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 12, 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 16, 2014, Robert McNeil from Millbury, MA and a consultant presented on the Coalition's work at the 5th Annual Water Resources Strategies Symposium, hosted by the Massachusetts Coalition for Water Resources Stewardship in Marlborough, MA, with a presentation entitled "*30 Towns Collaborating for Cost Savings, Efficiency in MS4 Compliance and Water Quality*".
- On August 7, 2015, the Coalition's outreach to other stormwater coalitions was demonstrated in a presentation entitled "*CMRSWC: Resources to Get the Most out of Your CIC Grant Funding*", given at the Community Innovation Challenge (CIC) Stormwater Symposium. We were invited by the Massachusetts Executive Office of Administration and Finance to present at this event, which it hosted in Worcester, MA.
- On September 19, 2015, John Woodsmall from Holden, MA gave a presentation called "*MA MS4 Permits: A Municipal Perspective – Implementing Stormwater Programs*" at the Environmental Business Council's Water Resource Management Program.
- On September 22, 2014, representatives from the Coalition (including Hopkinton, Shrewsbury, and a consultant) attended the Local Government Advisory Committee's "Protecting America's Waters" Workgroup, held in Worcester, MA, and commented on the record about the importance of encouraging appropriate long-term maintenance of stormwater Best Management Practices. The Coalition submitted formal comments to the USEPA on its Proposed Rule to clarify the definition of Waters of the United States (WOTUS) in the Clean Water Act.
- On January 24, 2015, the Coalition participated on a panel session entitled "*Underwater: Financing New Regulations*" at MMA's Annual Meeting in Boston. This session focused on new and established financing tools to ensure compliance with these requirements through means such as property surcharges, stormwater utilities, low-interest loans, principal forgiveness and regional stormwater opportunities.
- On January 26, 2015, the Coalition presented its work in a session entitled "*MS4 Compliance: Common Threads (and opportunities) in New England Permits*" at NEWEA's Annual Meeting in Boston, MA. This session, which was well-attended, highlighted the tools developed by the Coalition (and other groups) that can be used to provide cost-effective solutions to regional stormwater management challenges.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year*

13 at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

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 2: Public Involvement and Participation

In Year 12, Leicester continued to utilize several presentations on stormwater management, with content focused on educating elected officials and municipal department heads about the requirements of the 2003 Small MS4 Program, changes likely in the anticipated 2014 Massachusetts MS4 Permit, and the financial impact these potential changes may have on Massachusetts communities.

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

The Coalition provided training at a workshop on October 7, 2014 on SOP 10, “Locating Illicit Discharges”, intended to define the types of illicit discharges that may be observed in the Coalition communities and provide guidance on tools that can be used to identify each. At this same workshop, training was provided on the Coalition’s Illicit Discharge Detection and Elimination (IDDE) Documentation Packet, which specifies how illicit discharges are detected and what department or person is responsible for eliminating them. Identifying and removing illicit discharges, and ensuring that they are not reconnected, remains a substantial challenge to many MS4 communities. The October 2014 training workshop included a comprehensive review of many types of illicit discharges, and an interactive discussion with attendees about how several examples would presently be managed in their own community. Many Coalition communities began this inter-community discussion in Year 12, with others planning it for Year 13.

On May 23, 2014, the Town of Millbury hosted a demonstration by Environmental Canine Services (www.ecsk9s.com) and invited Coalition members, MassDEP, and other communities to observe. ECS uses two highly-trained dogs (see photos below) to detect the presence of human sewage (both fecal bacteria and metabolic byproducts) very low levels in water at outfalls and catch basins, without interference from non-human sources of bacteria. This interesting approach represents an accurate, quick, and cost-effective screening tool for locating illicit discharges. Water quality samples were collected to evaluate the observations noted by the dogs. Inspections were documented in the Coalition’s online mapping and inspection system, with forms that have been updated to allow our communities to use this innovative approach to IDDE.



*Figure 5: Environmental Canine Services, LLC,
Performing a Demonstration of Innovative IDDE Approaches in Millbury, MA*

Several Coalition members have chosen to use some of their “one-on-one” time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 12, Leicester 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. In Year 12, Leicester received a new tablet device. 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.

In Year 12, the Coalition purchased new ammonia field kits (CHEMetrics K-1510 kits) and provided two kits to each member community. These were approved by USEPA in Year 11 for stormwater outfall monitoring and are easier to use than ammonia monitoring tools purchased in Year 10. In Year 11, the Coalition began the process of rotating two full sets of water quality kits and meters around the 28 Coalition communities, including Leicester, on a schedule that follows the use of two Leica devices; this rotating schedule continued in Year 12. The objective of this approach was that inspection and mapping activities completed with the Leica may result in a list of outfalls or structures for which screening-level monitoring should be completed. The Coalition provided refresher training on the water quality kits at the workshop on October 7, 2014. The Towns of Millbury and Oxford are hosting the two sets of water quality kits and meters, and have taken responsibility of replacing reagent packets as they become depleted.

In Year 12, the Coalition finalized a review of industrial facilities located in each member community, including facilities that applied for coverage under the USEPA’s Multi-Sector General Permit (MSGP) program, and the compliance status of each. The objective of

this activity was to connect data from the two permit programs, consistent with the anticipated 2014 Massachusetts MS4 Permit.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

Construction activities- including erosion control, stormwater pollution prevention, and appropriate management of waste materials- are covered in the Stormwater Best Management Practices (BMP) Toolbox, development of which began in Year 10 and which was finalized in Year 11. The Stormwater BMP Toolbox was written to inform the general public about the importance of managing private construction projects responsibly. The Coalition provided training on this topic at a workshop on October 7, 2014.

Several Coalition members have chosen to use some of their “one-on-one” time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) 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

In Year 12, Leicester continued to use the Stormwater Best Management Practices (BMP) Toolbox, developed as a Draft in Year 10 and finalized in Year 11. This tool compiles the stormwater post-development tools currently permitted and encouraged for small development or redevelopment, specifically single-family homes and limited commercial renovations that have a small development footprint. The Stormwater BMP Toolbox provides technical data, design factors, and construction limitations with these BMPs in non-technical language.

The objective was to provide the average property owner with easy-to-understand information that encourages them to select low-impact stormwater management tools for their properties, construct them safely, and maintain them for long-term benefit. The BMPs in the Toolbox are consistent with the requirements of the current Small MS4 Permit, the Massachusetts Stormwater Handbook, and other current guidance documents. The Coalition provided training on this topic at a workshop on October 7, 2014.

Several Coalition members have chosen to use some of their “one-on-one” time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) 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

In Year 12, Leicester 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 Coalition provided training on the SWPPP Template at a workshop on October 7, 2014. 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 12, Leicester 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. The Coalition provided training on these SOP's at a workshop on October 7, 2014. 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.

In Year 12, Leicester continued to utilize two presentations developed in Year 10 on pollution prevention in stormwater management, with content focused on educating employees of public works, engineering, conservation, planning, highway, and other similar municipal departments on the requirements of the 2003 Small MS4 Program. The Coalition provided training on how to use these presentations to educate a variety of staff members at a workshop on October 7, 2014. One presentation is focused on using the SWPPP Template and the responsibilities of municipal personnel to implement requirements of the SWPPP, and the second training presentation provides explanation and insight on the 15 SOP's described previously.

In Year 12, Leicester continued to utilize a Sump Pump Discharge Policy developed in Year 10 that provides a framework for the member communities to respond to needs to remove sump pumps from the sanitary sewer system without causing property damage or creating a hazardous condition for the public. The Coalition provided training on the Sump Pump Discharge Policy at a workshop on October 7, 2014. The Policy discusses considerations related to potential contamination and reduction in capacity of the storm drain system when sump pumps are permitted to connect to the drainage system, and lays out a situational approach to provide flexibility in administering a policy. The Policy includes guidance for when such a connection should be considered, what information the municipality can request from a residential or commercial property to guide in its decision, and outlines the responsibilities of the property owner.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

Coalition Activities in Year 13 (April 1, 2015 – March 31, 2016)

The following are some, but not all, of the work presently underway by the Coalition in Year 13:

- *Administration.* The long-term goal of the Coalition when it formed in FY2012 was to become self-sustaining. The Coalition's Steering Committee has reached out to similar organizations around the country, and is presently evaluating three funding mechanisms. 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. The Coalition plans to finalize its long-term plans in June 2015.

- *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.
- *One-on-One Consulting Time.* As noted previously, each of the 28 Coalition communities has been allocated one-on-one time with the group's consultants. Each town has chosen the MCM or tasks that benefit it most strongly. This may include refresher training on water quality kits and meters, development of public outreach materials, review of stormwater enforcement tools, updates to IDDE Programs, or other related services. This focused effort lets each town optimize its investment in the Coalition.
- *Understanding Stormwater Program Costs.* In Year 13, the Coalition is expanding on the WPI IQP program to quantify the actual (albeit rough) cost of all 28 participants' existing stormwater programs. The current costs will be scaled up to match the anticipated provisions of the future Massachusetts MS4 Permit and will serve as the foundation for ongoing discussions about how each community will fund future stormwater programs. This is the first time many of these towns will have performed a community-wide review of these costs, which tend to be managed within many departments. We will follow this with a focused workshop on mechanisms to develop sustainable stormwater program funding mechanisms.
- *Public Outreach and Education.* Coalition members will present at the 6th Annual Water Resources Strategies Symposium on May 12, 2015, hosted by the Massachusetts Coalition for Water Resources Stewardship, sharing information on stormwater program costs and ways to create regional efficiencies. The Coalition is purchasing copies of the "Water Blues, Green Solutions" documentary (<http://waterblues.org/about>) for each member town, on DVD. We are also considering re-allocating funding to the development of Coalition-specific outreach materials. 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 evaluations. 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 13 if a final Massachusetts MS4 Permit is issued.

- *Good Housekeeping.* The Coalition is coordinating 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 considering approaching MassDEP and USEPA with a proposal to develop a pilot project for beneficial reuse of catch basin cleaning materials, and/or developing such a pilot project through a grant.

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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
1	Create a stormwater program	Highway Department; Planning Board; Conservation Commission; Board of Health; Board of Selectmen	Leicester will present its Comprehensive Stormwater Management Program to the public at a public meeting.	This goal was completed in previous Permit years.	Continue to educate the public about the Stormwater Management Program. The Town has reviewed the new draft MS4 permit and continues to await the finalization of the new Massachusetts MS4 Permit.
Revised					
2	Create a stormwater program	Highway Department	Leicester will identify appropriate sources of funding assistance (SRF, 319 Grant Program, Lakes & Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of Leicester's Comprehensive Stormwater Management Program, including public education and outreach.	Funding options continue to be explored. Leicester is an active participant in the Central Massachusetts Stormwater Coalition.	Leicester will consider applying for Section 319 grant funding to support implementation of nonpoint source pollution projects. Leicester will continue to participate in the Coalition.
Revised					
3	Address specific groups	Highway Department	Distribute EPA and other relevant educational brochures to targeted audiences. Distribution points include Town Hall, Library, and Transfer Station.	Leicester continued involvement in local community events. Outreach materials continue to	Continue to implement and evaluate outreach programs to educate the specific groups of the public, particularly

Revised				be available on the Town's website. Leicester's Stormwater Committee provides information at Founder's Day activities, which were held on June 14, 2014 in Year 12. Leicester has added a link on the Town's website for the CMRSWC.	materials developed by the Coalition project. Information will be provided at the Founder's Day event in June 2015.
4	Target groups likely to impact stormwater	Highway Department	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.	Reviewed educational materials provided by Coalition on specific activities.	Create and send out an educational brochure to homeowners.
5	Identify alternative information sources	Board of Selectmen; MIS Department	Leicester will post links to stormwater BMPs and other water quality education resources, including EPA and DEP, on its website. http://www.ci.leicester.ma.us/	Outreach materials continue to be available on the Town's website.	Continue to identify and implement alternative information sources for public outreach and evaluate the program.
Revised				The Town streamed the Pennsylvania State University documentary "Liquid Assets" on the Leicester local cable access channel.	Continue to stream the Pennsylvania State University documentary "Liquid Assets" on the Leicester local cable access channel.

6	Identify alternative information sources	Highway Department	Leicester will also post links on its website to the Blackstone River Watershed Association at www.thebrwa.org , the Blackstone River Watershed Council at www.BVTourism.com , the Nashua River Watershed Association at http://www.nashuariverwatershed.org , the French River Watershed Basin Team at http://www.state.ma.us/envir/water/frenchquinebaug/frenchquinebaug.htm and the Chicopee River Watershed at www.chicopeeriver.org .	Leicester continues to maintain these links on its website. Promote Coalition developed educational website, www.CentralMAStormwater.org .	Continue to identify and implement alternative information sources for public outreach and evaluate the program.
Revised					
7	Utilize local website	Highway Department	Public meeting notice and the meeting reviewing Leicester's Comprehensive Stormwater Management Program will be posted on Leicester's local access channel.	Leicester held meetings of the Stormwater Committee in Year 12. All meetings are published in advance on the Town website and open to the public.	Continue to utilize the local website for public outreach and evaluate its use. Upload Coalition developed public education and outreach materials on topics including illicit discharge detection and elimination, appropriate fertilizer use and pet waste management.
Revised					
8	Develop, conduct and document educational programs.	Highway Department Liaison	The Town of Leicester will appoint a liaison to the Blackstone River Watershed Association and the Nashua River Watershed Association to disseminate information to the Town on programs and activities.	Leicester's participation in the Coalition project included substantial communication with multiple watershed groups.	Continue to evaluate connections with watershed groups.
Revised					
9	Promote Household Waste Recycling	Highway Department; Board of Health	The Town of Leicester will work with the Town's contracted waste hauler and the Board of Health to continue to sponsor Hazardous Waste Collection Days.	Leicester uses its Town website to host a "FAQ" on hazardous waste disposal, to promote and	Continue to promote and evaluate Household Waste Recycling programs. A HHHW

Revised				evaluate household waste recycling programs and encourage residents to utilize services available at the Recycling Center.	Collection Event is scheduled every 2 years, next is scheduled for October 3, 2015. Leicester will continue to participate in Drug Take-Back events.
				The Highway Department recycles its used oil and serves as a drop-off location for used oil from residents, with all materials collected and processed regularly by the Recycling Center. Leicester participates in all DrugTake-Back programs sponsored nationally by the federal government, and provides notice of these events locally.	

2. Public Involvement and Participation

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
10	Storm drain stenciling	Highway Department	Leicester will work with local Scout groups to develop a stenciling program. Stenciling will target Leicester's sub-watersheds.	Leicester continues to maintain catch basin stencils, but does not involve the public in this activity for safety reasons.	Continue to maintain catch basin stencils, as needed.
Revised					
11	Community clean-ups	Highway Department; Leicester Conservation Commission	Town of Leicester 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.	As it does each year, Leicester Highway Department provided transportation and coordination of trash collected during Earth Day cleanup events in April 2014.	Continue to hold community clean-ups in the Town, including Earth Day events in Year 13, and evaluate the program.
Revised					

12	Community clean-ups	Highway Department	Town will provide trucks and other material to support cleanup efforts and disposal of materials.	The Highway Department continues to support local cleanup efforts with staff and equipment.	Continue to hold community clean-ups in the Town and evaluate the program.
Revised					

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	Highway Department	Leicester will identify appropriate sources of funding assistance (SRF, 319 Grant Program, Lakes & Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of Leicester's Comprehensive Stormwater Management Program, including public education and outreach.	In Year 12, members of Leicester's Highway Department received continued training on the integrated mapping and inspection database, which serves as a major tool to map structures and components of the storm drain system and monitor discharges. The Town received additional training on using both the Leica GPS devices and the tablet computer, both of which were purchased as part of the Coalition project. The Town utilized the Coalition purchased Leica GPS device to map catch basins in permit year 12. All catch basins in Urbanized Area have been mapped. Leicester has started the process of catchment delineation.	Continue to inspect mapped outfalls, and update mapping as new outfalls are added. Utilize the Coalition purchased tablet computer to complete outfall and catch basin inspections. Continue to utilize the Coalition Leica GPS devices to map all catch basins in Town as well as storm drain manholes and structural BMPs.
Revised					

14	Mapping and identification of outfalls and receiving waters.	Highway Department	Leicester will develop and implement a plan to map all outfalls and receiving bodies of water, contingent on Town Meeting approval of funding.	Leicester has mapped all known outfalls in the Urbanized Area to date. The Town is currently working on mapping BMPs and storm drain outfalls.	The Town will continue to locate new outfalls that are added and to screen high priority outfalls. Utilize the Coalition purchased water quality field test kits to test and monitor priority outfalls.
Revised					
15	Identification/description of problem areas	Highway Department	Leicester will develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan, contingent on Town Meeting approval of funding.	The Leicester Water Supply Board designed new sewer infrastructure at the intersection of Franklin Street and Grove Street to eliminate an illicit discharge located previously. The construction contract was completed during a previous reporting year, permanently eliminating this illicit discharge. Several Department Heads attended a training session on Illicit Discharge Education and Communication prior to Year 12. The Town has prepared a Statement of IDDE Program Responsibilities which establishes a chain of command in regards to reporting illicit discharges and responsibilities for important positions in Town.	Continue to implement and be proactive with the IDDE plan from data from the consultant and evaluate the progress. Review and evaluate the Coalition developed standard operating procedure (SOP) for locating and identifying illicit discharges. Keep documents and presentation on file for interested parties to review.
Revised					
16	Enforcement procedures addressing illicit discharges.	Planning Board Town Counsel Board of Health	Leicester will review whether local authority is appropriate and able to respond to potential illicit discharges. New by-laws, if necessary, will be proposed to Town Meeting.	The Town received training on the IDDE Documentation Packet materials, developed as part of the Coalition project. The objective	Continue to implement and evaluate the current policy.

Revised				of this task was to educate people in multiple Town departments on illicit discharges and define how these people (and departments) will work together to eliminate them. A IDDE bylaw was passed at Town meeting and is now in effect.	Review and evaluate the Coalition developed IDDE Documentation Packet.
17	Public information program regarding hazardous wastes and dumping.	Highway Department; Board of Health	Leicester will provide educational brochures to residents promoting proper disposal of household hazardous wastes.	Leicester has continued to prioritize education about hazardous wastes and appropriate material disposal. Its website continues to be a powerful tool for residents.	Continue to implement and evaluate the current policy.
Revised					
18	Initiation of recycling programs	Planning Board Board of Health	Leicester will apply for funding assistance from DEP's Recycling Grant Program for assistance in public education and the purchase of recycling materials.	Leicester continues to actively seek recycling grants, most recently to implement a program to provide low-cost composting containers to residents and another program to serve as a drop-off location for unused herbicides and pesticides.	Continue to implement and evaluate the current policy.
Revised				The Recycling Center website maintains a large amount of information for residents to guide and encourage recycling and proper disposal of wastes.	Continue to see grants that encourage residents to drop off materials that otherwise may result in pollution.

19	Watershed assessments and studies	Highway Department; Conservation Commission; Board of Health	Leicester 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 impacting water quality in Smiths Pond, Southwick Meadow, Bouchard Pond, Greenville Pond West, Rochdale Pond, and Greenville Pond. These water bodies have been identified as impaired and are on DEP's 303d list.	Leicester received great benefit in Year 12 from the Coalition. Most of the Coalition tasks have been developed with a "regionalization" focus, and address multiple watersheds.	Continue to implement and evaluate the current policy with the Stormwater Committee in place. Maintain active participation in the Coalition in Year 13.
Revised					
20	Watershed assessments and studies	Highway Department Leicester Water Supply Districts	The Town of Leicester will encourage cooperation with Leicester's Public Drinking Water Supply 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 Leicester's Zones II in Leicester.	Leicester's Stormwater Committee continues to have a strong relationship with local public drinking water and sewer districts.	Continue to implement and evaluate the current policy.
Revised					

4. Construction Site Stormwater Runoff Control

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
21	Bylaw: Stormwater management regulations for construction sites 1 acre or larger	Planning Board; Conservation Commission; Town Counsel; Board of Health; Zoning Board of Appeals	Leicester will review model by-law developed by DEP in consultation with the Attorney General's Office.	Stormwater by-law was developed in previous permit years. The Town has reviewed and evaluated Coalition developed SOP for construction inspection and erosion and sedimentation control.	Continue to implement and evaluate the current policy with the stormwater committee in place. Continue to use tools created from the Coalition regarding Construction Site Stormwater Runoff Control.
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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
22	Bylaw: Require post-construction runoff controls	Planning Board; Conservation Commission; Town Counsel; Board of Health; Zoning Board of Appeals	Leicester will review model by-law developed by DEP in consultation with the Attorney General's Office.	Stormwater by-law was developed in previous permit years. The Town received structural Best Management Practice (BMP) inspection SOPs developed as part of the Coalition in previous Permit years.	Continue to implement and evaluate the current policy with the stormwater committee in place. Review and evaluate for potential implementation or incorporation into existing policy the Coalition

Revised					developed Stormwater Best Management Practices (BMP) Toolbox, which was developed to provide property owners with information about low impact stormwater management tools. The Town will consider using porous pavers in a project being considered in the Town Common area, if that project moves forward.
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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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
23	Develop a municipal Operations and Maintenance Plan	Highway Department	Using regulations and recommendations from DEP and EPA, Leicester 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.	The Town continues to maintain compliance at facilities it owns and operates. A Highway Department SWPPP was developed in previous years. Catch basin screening forms and a maintenance schedule were implemented prior to Year 12. All basins were cleaned at least once in	Review and evaluate the Coalition developed Stormwater Pollution Prevention Plan (SWPPP) template. The template may be customized to produce a fully developed SWPPP for individual properties. Review and evaluate the Coalition developed Sump Pump Discharge

Revised				Year 12, with approximately 100 basins cleaned a second time. The Town received SOPs on wet and dry weather outfall inspection, IDDE, and other actions that were developed as part of the Coalition project prior to Year 12. These forms and inspections were incorporated in the integrated mapping and inspection database, on which several Highway Department staff members received training. Fire stations and police headquarters were evaluated for the need of SWPPPs. Documents not needed at this time.	Policy, which may be used to provide guidance on the removal of sump pumps from the sanitary sewer system and subsequent incorporation into the drainage system.
24	Develop a municipal Operations and Maintenance Plan	Highway Department	Leicester will implement a formal inspection program, including maintenance logs and scheduling, for catch basin cleaning, repairs, and new installation.	Catch basin screening forms and a maintenance schedule were implemented prior to Year 12. The Town received SOPs on wet and dry weather outfall inspection, IDDE, and other actions that were developed as part of the Coalition project in previous Permit years. These forms and inspections were incorporated in the integrated mapping and inspection database, on which several Highway Department staff members received training.	Continue to implement this project and evaluate the progress. Review, evaluate and implement the Coalition developed 15 SOP's, which provide guidance on activities including but not limited to outfall inspection (both dry and wet weather), catch basin cleaning, erosion and sedimentation control, oil/water separator maintenance and use and storage of pesticides and fertilizers. Evaluate hiring an intern to perform catch basin inspections during spring cleaning operations.
Revised					

25	Develop and implement training programs for municipal employees.	Highway Department	Leicester will send a minimum of 3 public works employees annually to training seminars sponsored by MassHighway, BayState Roads, and other relevant agencies or vendors.	Training in Year 12 included several events provided by the Coalition, including training on how to use the Leica GPS unit and training on how to use the tablet computer, SWPPP template, BMP toolbox, and use of water quality kits. Highway Department employee Derek Keats is licensed in Massachusetts for gas dispensing. The training required for this certification involves efforts toward spill prevention and cleanup and pollution prevention, both of which benefit the Highway Department facility and are consistent with goals in its SWPPP. Municipal employees received OSHA 10 hour training prior to Year 12.	Continue to implement this project and evaluate the progress. Continue to provide Coalition-developed education and training to municipal employees.
Revised					
26	Review storm drainage infrastructure needs.	Highway Department	Leicester will incorporate storm drain infrastructure review in Leicester's Chapter 90 project utilizations.	This storm drain evaluation is incorporated into project reviews.	Continue to implement this project and evaluate the progress.
Revised					

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 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
	Not Applicable	Not Applicable	Not Applicable	The following Leicester water bodies are considered impaired per the current Integrated List of Waters. Several water bodies are currently Category 2 (being assessed for one or more designated uses) which may require TMDLs in the future. Other water bodies have never been assessed (Category 3), but may require TMDLs in the future. Leicester will continue to watch for these TMDLs to be published and will evaluate published Waste Load Allocations, accordingly.	Evaluate any TMDLs developed for Leicester impaired waters.
Revised					
				TMDLs have been developed for several water bodies (Category 4a), including: Cedar Meadow Pond (aquatic plants); Smiths Pond, Southwick Pond (aquatic plants); Waite Pond (mercury in fish tissue); Dutton Pond (total phosphorus and “Nutrient/Eutrophication Biological Indicators”), Greenville Pond (turbidity), and Rochdale Pond (“Nutrient/Eutrophication Biological Indicators”). Most of these impairments do not require actions under the MS4. TMDLs for Burncoat Brook (<i>E. coli</i> and aquatic macroinvertebrate), Grindstone Brook (<i>E. coli</i>), and French River (total phosphorus, mercury in fish tissue, turbidity, and aquatic plants) will be developed in the future.	

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

Other than the information presented in Part III, above, no information was collected or analyzed. The Town of Leicester maintains that it continues to be in compliance with the 2003 Massachusetts Small MS4 Permit.

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)	
Annual program budget/expenditures **	(\$)	\$20,000
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

Education, Involvement, and Training

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

Legal/Regulatory

	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
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	(%)	100%
Estimated or actual number of outfalls	(#)	89
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100
Outfalls inspected/screened **	(# or %)	89
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	1
Illicit connections removed **	(#); and (est. gpd)	
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	1
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

	(Preferred Units)	Response
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 **	(#)	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)	2
Qty of structures cleaned **	(#)	131 streets with catch basins
Qty. of storm drain cleaned **	(%, LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vacuor **	(%)	
	(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	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	
Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(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 Treated salt (NaCl/ MgCl ₂ mix)	300 tons 1,500 tons
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/l _n mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/l _n mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	

Water Supply Protection

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