

Municipality/Organization: Town of Kingston, MA

EPA NPDES Permit Number: MAR041041

MaDEP Transmittal Number: W-036193

**Annual Report Number
& Reporting Period:** No. 10: March 14-March 15

NPDES Phase II Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Maureen Thomas Title: Conservation Agent

Telephone #: 781-585-0537 Email: mthomas@kingstonmass.org

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: Maureen Thomas

Title: Conservation Agent

Date: April 30, 2015

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Signature: Maureen A. Thomas

Printed Name: Maureen Thomas

Title: Conservation Agent

Date: April 30, 2015

Part II. Self-Assessment

Permit Term 2014-2015

During the March 2014 to March 2015 permit term, the Town of Kingston continued to meet the requirements of its NPDES Phase II permit with assistance from Environmental Partners Group, Inc. (EPG), ATP Environmental, other agencies, and volunteers. EPG has a contract with the Town to submit a Notice of Intent (NOI) and Stormwater Management Plan (SWMP) under the new NPDES Phase II General Permit once the new rule is issued by the EPA. ATP Environmental has assisted the Town with all of the grant-funded stormwater remediation projects since 2011. Kingston had some major accomplishments during the 12th permit term and the most significant include:

- At the April 2014 Annual Town Meeting, the Town adopted amendments to Kingston's Stormwater Management By-Law, upon recommendation of the Attorney General (AG), to improve the effectiveness of the By-Law to regulate construction and post-construction stormwater runoff and illicit connections. These amendments were approved by the AG in September 2014;
- In May 2014, the Town completed work under the 2012 604(b) Water Quality Management Planning grant and submitted a final report to DEP. This project funded water quality sampling for bacteria and total suspended sediment in the Town Center area, developed conceptual plans and preliminary plans for priority remediation sites, and developed final plans for two previously identified sites for the CPR'14- and CPR'15-funded projects;
- At the end of June 2014, Kingston completed Phase II of a multi-phase project to mitigate stormwater impacts, improve water quality, and open more shellfish beds in the Kingston Bay. Phase II was funded by a Coastal Pollutant Remediation (CPR) grant in the amount of \$116,627.00 and included the successful installation of underground infiltration systems at three sites (Arrow Street, Marsh Road, & River Street) to remediate impacts from stormwater pollutants emanating from our highest priority outfalls;
- In October 2014, ATP Environmental presented the Duxbury and Kingston stormwater mitigation project methodology & success at the Fall Conference of the New England Chapter of the American Public Works Association (NEAPWA);
- In December 2014, the Superintendent of Streets, Trees, & Parks attended an Environmental Partners Group-sponsored event to learn more about the upcoming NPDES Phase II Final Rule;
- In December 2014, the Town was awarded its third CPR grant in the amount of \$118,262.00 for Phase III of the multi-phase project to address remediation of priority outfalls that discharge bacteria & sediments to the Jones River and Kingston Bay. The Phase III stormwater BMP implementation project will mitigate a direct discharge to the Jones River estuary by breaking up a large catchment area, capturing stormwater closer to its source and installing deep sump catchbasins and drain manholes, stone-lined swales, a water quality inlet, and underground infiltration systems; and
- During the permit term, the Conservation Commission mailed 51 outreach and education packet packets to new homeowner's within Commission jurisdiction to provide information about wetlands, stormwater pollution prevention tips, organic land care, etc.

Further accomplishments by the Town of Kingston in the 12th year of implementing its Stormwater Management Plan are described in more detail below.

Stormwater Working Group

The informal Stormwater Working Group met several times, in whole or in part, in the 2014-2015 permit term for the following:

- Discussing with EPG the forthcoming expectations under the new NPDES General Permit;
- Discussing Kingston's Stormwater Management By-Law amendments and development of supporting regulations;
- Securing and administering stormwater sampling and remediation grants/projects;
- Evaluating conceptual, preliminary, and final design plans with ATP Environmental for stormwater mitigation proposals; and
- Working with the Greenscapes Program to conduct public outreach components of measurable goals.

Greenscapes Program

In the 12th permit term, the Town of Kingston Water Department continued to support the Greenscapes Program sponsored by the NSRWA (South Shore regional partner of the Massachusetts Bays Estuaries Program) and financed by Massachusetts Department of Environmental Protection, Massachusetts Environmental Trust and the Environmental Protection Agency. Through the Greenscapes Program, the MassBays South Shore Regional Coordinator conducted outreach to the Kingston Intermediate School (KIS) 5th grade science classes with their *Water All Around You Program* to provide students with the knowledge and tools to be future stewards of the environment. The 2010 movie, *The Jones River: A Duck's Eye View* (https://www.youtube.com/watch?v=AI-5q_ktq9s), by Alex Mansfield, JRWA Ecology Program Director, was shown to students to give them a visual tour of the river - dams, water quality issues, and all else - in order to educate the students and promote restoration of the river. Greenscapes informational brochures were distributed to the public in the Town Hall. The Kingston Conservation office regularly mails out the Greenscapes brochures to new residents who purchase property within the Commission jurisdiction and 51 new residents received the brochures in 2014.

Website Announcements

In the 2014-2015 permit term Town departments continued to be very active in using the award-winning Town of Kingston website to post community announcements for a variety of things including pollution prevention tips, the availability of free compost at the transfer station, the sale of subsidized compost bins at the Department of Streets, Trees, & Parks (DSTPs), educational messages regarding stormwater, recycling, environmentally sensitive landscaping, etc. (See <http://www.kingstonmass.org> for more details). A stormwater webpage for posting more stormwater-related materials, including the Town's NPDES Phase II work and stormwater remediation work, is in development.

Household Hazardous Waste Day

Residents from the Town of Kingston and Duxbury participated in a Duxbury-sponsored Household Hazardous Waste Day in May 2014 through a reciprocal arrangement that allows other member towns of the South Shore Recycling Cooperative (SSRC) to attend. Another is planned in Kingston for SSRC member towns on May 2, 2015. This is a service the DSTP's provides to residents on an annual, rotating basis in partnership with the Town of Duxbury in order to promote the proper disposal of household hazardous waste.

MS4 Operation & Maintenance

The Department of Streets, Trees & Parks (DSTP's) commenced their spring 2014 catchbasin, drainline & water quality structure cleaning with the vactor truck purchased in 2009 and in the 12th permit year cleaned approximately 70 structures, disposed of approximately 20 tons of material and spent approximately \$ 5,000.00 on disposal costs (total tonnage and cost includes street sweepings). The cleaning of stormwater structures, the tonnage of material, as well as the cost of disposal continues to be significantly less than the first 9 permit terms due to the elimination of sand from de-icing operations and to the DSTP's having a vactor truck that has cleaned years of accumulated sediment from a majority of catchbasins. The DSTP's calibrates their salt spreaders every year to ensure application is appropriately regulated. As part of the enhanced program to clean the town-wide stormwater system, the staff of the DSTP's has generated much valuable data on structure condition for future operation and maintenance needs, as well as for ensuring the Town meets its good housekeeping goals.

Collaborating with Neighbors for Water Quality Improvement Projects

In the 12th permit term, the Kingston Conservation Commission wrote a support letter for the Town of Duxbury's application to the Coastal Zone Management (CZM) Coastal Pollutant Remediation (CPR) Program to continue their ongoing work to improve water quality by installing best management practices (BMPs) on Bay Road where stormwater discharges to Kingston Bay. In addition, the Commission wrote a support letter for the Town of Plymouth's DEP s.319 grant to develop a nitrogen TMDL for the bay. The Commission also supported a JRWA Massachusetts Environmental Trust grant application for final design and permitting of fish passage to Silver Lake around the Forge Pond Dam. As part of the fish passage project, stormwater remediation is also proposed to capture and infiltrate unmitigated discharges to the Jones River headwater from Lake Street. Likewise, both the Town of Duxbury and the JRWA supported the Town of Kingston's 2014 CPR application to mitigate a priority stormwater outfall to the Jones River estuary. The Town of Kingston is committed to continuing collaborations with our neighboring communities and nonprofit friends to enhance our shared coastal resource waters.

Jones River Watershed Association (JRWA) & Jones River Landing (JRL) Ecology & Education Programs

Throughout 2014, JRWA/JRL held many educational events that reached nearly many adults and children, including students from area schools and Scout troops. The ecology programs and other activities of the JRWA directly benefit the residents of the town and greatly enhances the efforts of the Town of Kingston in getting the message of environmental stewardship of our wetlands, rivers, and bay out to the general public (See JRWA website at <http://www.jonesriver.org/> & 2014 Annual Report at <http://jonesriver.org/getfile/annual-reports/JRWAPrgressReport2014.pdf?cb8523> for more information). JRWA held its 10th annual herring count in 2014 and had the largest herring run since the count started in 2005 with 5,121 fish counted.

Water Quality Monitoring

As mentioned above, Kingston wrapped up its 2012 DEP 604(b) Water Quality Management Planning grant with a final report and prioritization list of outfalls based on the analysis of the 2013 sampling of 10 outfalls discharging to Halls Brook and the Jones River. This new list of priority outfalls to be remediated follows on the priority list developed through the 2011 Mass Bays Research & Planning grant and will provide new mitigation targets after the final MBP priority outfall is remediated. The DEP 604(b) sampling included 6 town-owned outfalls and 4 state-owned outfalls. Samples were analyzed for bacteria (fecal coliform & enterococci) and total suspended sediment (TSS). Data on state-owned outfalls will be shared with MassDOT's Impaired Waters Program and data from town-owned outfalls is being used to develop conceptual and preliminary plans for implementation of best management practices to remediate pollution from priority outfalls. The Division of Marine Fisheries (DMF) continued to conduct sanitary surveys for the shellfish beds in the bay and the Kingston Board of Health conducted regular sampling of water quality at swimming beaches. This monitoring data helps to inform the Town of Kingston as to potential stormwater pollutants and target areas of concern.

Collaborating with the Mass Bays Program on Green Infrastructure Handbook

The Mass Bays Program (MBP) got a grant from the EPA to develop *Coastal Stormwater Management Through Green Infrastructure: A Handbook for Municipalities* and finalized it in December 2014 (<http://www.mass.gov/eea/docs/mbp/publications/massbays-green-infrastructure-handbook.pdf>). The Handbook was developed to assist coastal municipalities with incorporating green infrastructure into stormwater management planning and green infrastructure implementation to reduce pollutants and improve water quality throughout the Mass Bays Region. The Town of Kingston was a partner on the project and recent Kingston stormwater retrofits were featured in the published Handbook and Fact Sheet (<http://www.mass.gov/eea/docs/mbp/publications/green-infrastructure-handbook-fact-sheet.pdf>). Kingston's involvement in this project was the result of a transferability commitment made to MBP as part of being awarded an MBP Research and Planning grant in 2011.

Planned Activities 2015-2016

Planned activities for the 2015-2016 permit term include:

1. Submit NOI & SWMP under the new General Permit once issued;
2. Develop stormwater regulations for administration of the new stormwater management by-law;

3. Continue work to conduct water quality assessments to prioritize targets for pollutant remediation, work to implement BMPs, and administer existing grant funds while seeking further grant opportunities;
4. Develop stormwater webpage on Town of Kingston website in conjunction with the stormwater by-law and regulations, overall NPDES program, stormwater grants, and remediation projects;
5. Develop maintenance record database for enhanced management of the MS4 and for use in GIS;
6. Regularly update the online mapping website to increase awareness of the Town's MS4, among other things;
7. Work with the Planning Dept. and GIS consultant, to be hired in FY15, on enhancing the Town's GIS for the benefit of MS4 management, among other things;
8. Continue to improve annual DSTP activities including researching salt use reduction strategies;
9. Work with DEP Division of Watershed Management to source track bacterial hotspot in Tussock Brook within the Lower Jones;
10. Continue to expand use of LID in Kingston and on town-owned properties/projects;
11. Continue Water Department support of the Greenscapes Program, working with Greenscapes on public education efforts;
12. Conduct workshops for single family homeowners such as Stormwater Management for the Home, Healthy Lawns & Landscapes, Landscaping in the Coastal Zone, etc. to educate residents about various ways to reduce stormwater pollution to wetlands & waterways;
13. Continue mailing stormwater brochures and conducting stormdrain stenciling to complete goals under existing General Permit;
14. Provide MassDOT water quality data for sampled outfalls from Route 3A and Route 3 so that they may begin to prioritize Kingston outfalls for mitigation in their Impaired Waters Program. Also, upload MassDOT GIS stormwater infrastructure data to Kingston GIS for use in ArcMap and in Kingston's OnlineGIS;
15. Continue collaboration with JRWA on grant applications for stormwater/resource area improvements, protection of open space, community clean-up days, educational programs, restoration projects, dam removals, etc.;
16. Continue partnership with KIS, SLRHS Conservation & Horticulture, as well as other community groups (Boy Scouts, Girl Scouts, etc.) for Town of Kingston stormwater and resource area improvement projects;
17. Continue partnerships with other agencies and non-profits; and
18. Continue partnerships with neighboring towns on grant proposals to improve water quality of the bay.

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 – Permit Year 13
# 1.1	Partnership with local watershed association	Conservation, DSTP's, Planning, BOS, Water Dept., Harbormaster, etc.	Collaborate on storm water management, water quality monitoring, herring count, educational programs, clean-ups, etc.	Supported JRWA grant applications for public education and outreach to schools & general public (environment, agriculture, climate change) (MBP, NSRWA, MET)	Continue cooperative efforts with JRWA outreach and education and grants in 2014 (MBP, NSRWA, MET, etc.)
Revised				<p><i>Water All Around You Program at Kingston Intermediate School (JRWA, MBP, NSRWA, Greenscapes)</i></p> <p>Herring count at Water Dept. (JRWA & public) - largest herring run since 2005 start</p> <p>River & CoastSweep clean-up (JRWA, other partners & public)</p>	<p>Continue collaboration on this successful program</p> <p>Herring count in spring 2015 organized with Water Dept. and community (JRWA)</p> <p>Do collaborative clean – ups in 2015 (Coastsweep, etc.)</p>
# 1.2	Storm drain stenciling	DSTP, Conservation, KIS, Stormwater Working Group	Re-start and finish town-wide stenciling with educational doorhangers & newspaper articles	No stormdrain stenciling in 2014, but installed several "Dump No Waste, Drains to Bay" catchbasin & drain manhole grates/covers	Continue work to expand stenciling effort to increase stormwater education efforts. DSTP's to assist on major roads.

Revised					May re-evaluate technique/methods – explore use of metal markers/etched grates/covers Write more newspaper articles on project, use website
# 1.3	Distribution of educational materials and offer of free workshops for residents/officials through Greenscapes Program	Kingston Water Dept., ConCom	Display and use these materials at Kingston Town Hall to encourage greenscapes in Kingston Install a Greenscape on town property Use town website for educational stormwater messages	Greenscapes Program (MBP, NSRWA, & other sponsors) Conservation Agent collaborated with Mass Bays on the Green Infrastructure (GI) Handbook in 2014 (MBP)	Continue support of Greenscapes Program Conservation Agent presented Kingston stormwater work at MACC Annual Environmental Conference to promote the GI Handbook in Feb. 2015 (MBP)
Revised				ConCom continued mailings to new residents living near wetlands and waterways Regular articles on river and watershed (JRWA)	Create stormwater webpage in 2015 to increase public education Use newspaper (Kingston Reporter) to educate public about stormwater
# 1.4	Pet waste station installation at local conservation lands	Conservation, E.B. Sampson Fund (town grant program)		Maintained Pet Waste Stations installed on 5 conservation land parcels (Senior volunteer)	Install new pet waste station at Delano Beach and other public places
Revised					
# 1.5	Educational seminars for employees, residents, local engineers, developers, real estate agents on water quality, stormwater, conservation issues	Stormwater Working Group	Plan contents of workshops and set dates with schedule of seminars in tax bills, in paper, on website	No workshops in 2014, but continued advocating stormwater pollution prevention with various town departments and public Adopted stormwater by-law amendments required by AG (ATM 2014)	Hold workshops Draft supporting stormwater regulations
Revised					
# 1.6	Annual clean-up of town properties/streets	Conservation, DSTP	Hold annual clean-up days	Various Boy/Girl Scout groups and volunteers cleaned up conservation land parcels & DSTP's disposed of rubbish (Boy/Girl Scouts & public)	Participate in Fall Coastsweep and expand beyond the coast to inland areas (ConCom, DSTP's, Recreation, community groups, volunteers, etc.)
Revised					

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 – Permit Year 13
# 2.1	Partnership with local schools	ConCom, DSTP's Water Dept.	KIS Raingarden Maintenance Greescapes Program participation	ConCom & DSTP's did not maintain raingardens in 2014 <i>Water All Around You</i> program for KIS 5 th graders (MBP, NSRWA, & JRWA)	Conduct maintenance in 2015 with volunteer & school (volunteers/KIS) <i>Water All Around You</i> program for KIS 5 th graders (MBP, NSRWA, & JRWA)
Revised					
# 2.2	Partnership with watershed association	Planning, DSTPs, Harbormaster, Conservation DSTPs, Conservation, Planning, Water, Health, Building Conservation, DSTPs, BOS Water Dept.	Continue collection of water quality data (JRWA) Stormwater Working Group Continued mitigating priority outfalls (ATP) Hold annual Herring counts & Greenscapes support	(JRWA) Under contract with EPG for new NOI & SWMP (JRWA) Completed Phase II & started Phase III (ATP & JRWA) Trained volunteers to participate in 2014 herring count - largest since 2005 (JRWA)	Continue water quality sampling and engage public in sampling (JRWA) Submit new NOI & SWMP, draft SW regulations, consider targeted mailings. (JRWA) Complete Phase III & commence Phase IV (ATP & JRWA) Continue herring count & work with Greenscapes in new permit term (JRWA)
Revised					
# 2.3	Storm drain stenciling	Highway, Conservation, KIS, Stormwater Working Group	Organizing neighborhoods/volunteers to stencil storm drains	No stenciling in 2014, but purchased CB/DMH grates & covers with "No Dumping, Drains to Bay" messages	Continue purchase of etched grates & covers and seek volunteers for stenciling in 2015
Revised					
# 2.4	Establishing formal Stormwater Management Task Force with citizen involvement	Selectmen and all other applicable boards	Establish Storm Water Management Task Force with regularly scheduled meetings and activities	Still informal Stormwater Working Group meetings with appropriate town officials (JRWA & other agencies)	Establish formal Stormwater Management Task Force with expanded involvement to include more town boards and citizens at large (EPG, JRWA, other towns input)
Revised					

# 2.5	Household Hazardous Waste Collection and Recycling Day	DSTP's and Town of Duxbury	Hold annual collection days Collect mercury-containing thermometer/thermostats throughout year	Successful collection day in Duxbury held in spring 2014 that was well attended by Kingston residents (SSRC) DSTP's cont'd collecting mercury thermometers, thermostats and handing out non-mercury thermometers	Spring 2015 collection day in Kingston for Duxbury as well (SSRC) Town to continue program – posted on town website
# 2.6	Educational seminars, mailings, & other information for residents, local engineers, developers, real estate agents on water quality, stormwater, conservation issues	Stormwater Working Group	Plan contents of workshops and set dates. Advertise seminars in tax bills, in paper, & website. Expand educational outreach via website, mailings, etc.	Regulatory revision workshop (including stormwater provisions) open to public in Kingston by DEP in 12th permit term (DEP) Advocated for stormwater pollution prevention with various town departments & public through public hearings & conservation related mailings to new residents	Hold more workshops for general public Create stormwater webpage on town website
# 2.7	Annual clean-up days on town properties	Conservation, DSTP	Hold annual clean-up day	Various Boy/Girl Scout groups cleaned up conservation land parcels and DSTP's disposed of rubbish (Boy/Girl Scouts & public)	Work on coordinating more large scale clean-up days on town lands with various town groups such as Coastsweep and beyond in 2015 (JRWA & Public)
# 2.8	Form "Friends of Conservation Land" group	Conservation, Open Space Committee & DSTP's	Hold regular clean-up days and watch group to reduce vandalism, theft and littering of town conservation land where there are many wetlands and streams	Senior volunteer for conservation land maintenance	Facilitate more volunteer land stewardship and development of friends group to reduce illegal dumping on conservation lands (public)

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 – Permit Year 13
# 3.1	Catch basin/outfall and sewer mapping to receiving waters	Planning, DSTP, Conservation	Mapping hotspots that are suspected to carry high pollutant loads	Under contract with EPG to submit NOI & SWMP (EPG)	Submit new NOI and SWMP & draft SW regulations to aid implementation of amended by-law (AG required amendments to by-law - April 2014)
Revised					
# 3.2	Sewering of densely developed areas and environmentally sensitive areas of town to reduce septic influence on water quality	Sewer Commission	Expand sewer capacity	Continued planning for sewer expansion	Continue planning for sewer expansion
Revised					
# 3.3	Regulatory Review & Permit Enforcement	Selectmen, Planning, Building, Zoning, Conservation, DSTP's, BOH		Stormwater By-Law amended ATM 2014	Draft SW regulations in 13 th year
Revised					
# 3.4	Storm drain stenciling	DSTP, Conservation, Stormwater Working Group	Adopt a Storm Drain	Discussion of including this in storm drain stenciling efforts, but no progress made	Neighborhood representatives to monitor storm drains for illicit discharges – pursue this with stormdrain stenciling efforts
Revised					
# 3.5	Water Quality Monitoring	Planning, Conservation, Highway, Water, Harbormaster, Stormwater Working Group	Expand WQ monitoring to include surveying for illicit discharge detection	Finalized DEP 604b Water Quality Management Planning grant in May 2014 No further water quality sampling in 12 th permit term	Based on WQ analysis, prioritized new outfalls for remediation Pursue more grant funds for further WQ sampling

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 – Permit Year 13
# 4.1	Regulatory Mechanisms	Selectmen, Planning, Building, Conservation, DSTP, Stormwater Working Group	Establish and implement local stormwater management by-laws and/or stormwater authority to increase construction runoff controls in design criteria	Adopted Stormwater Management By-Law amendments in April 2014	Draft & approve SW regulations and complete implementation (EPG, JRWA, public) Continue implementing & encouraging LID through regulatory permitting
Revised					
# 4.2	Site Plan Review	Planning, Conservation, Building, Zoning, BOH, Stormwater Working Group	Establish Phase II specific stormwater guidelines for review of site plans	Regularly require developers to obtain NPDES CGP for disturbance of 1 acre or more of land	Review in accordance with Stormwater Management By-Law once supporting regulations are approved
Revised					
# 4.3	Enforcement	Building, Planning, Zoning, BOH, DSTP, Conservation, Stormwater Working Group	Establish new site inspection forms, new procedures and fee/fine schedules for incorporating requirements of Phase II TMDLs on 303d waters	Stormwater Management By-Law amendments clarified enforcement provisions and fine schedule (April 2014)	Draft regulations to further define enforcement procedures Work with Plymouth, Duxbury, MEP & DEP to develop TMDL for bay and develop land use management standards to work toward removing waterbodies from 303d list
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 – Permit Year 13
# 5.1	Regulatory Mechanisms	Selectmen, Town Administrator, Planning, Building, Conservation, DSTP	Implement local stormwater management by-law	Adopted Stormwater Management By-Law amendments to clarify enforcement provisions and fine schedule (ATM 2014)	Draft Stormwater Management Regulations for approval
Revised					
# 5.2	Site Plan Review/As-Built Review	Planning, Conservation, Building, Zoning, BOH, DSTP	Establish Phase II - specific stormwater guidelines and low impact development guidelines for review of site plans	Reviewing authority specified in By-Law adopted in 2013 GIS mapping will improve reviews	Draft Stormwater Management Regulations and finalize jurisdictional review provisions in regs. Continue work on town-wide GIS enhancements
Revised					
# 5.3	Enforcement	Building, Planning, Zoning, BOH, DSTP, Conservation	Establish new site inspection forms, new procedures and fee/fine schedules for incorporating requirements of Phase II	Adopted amendments to Stormwater Management By-Law to fix enforcement provisions (ATM 2014) Continue to attach Operations & Maintenance Plans to Conservation Orders of Conditions and refer directly to the O & M Plan with specific conditions into perpetuity (as required under DEP stormwater policy) Continue requiring annual reports submitted to ConCom for stormwater maintenance post-construction	Draft & adopt supporting regulations Establish cash (instead of bond) surety with developers to create binding obligation to keep stormwater runoff onsite

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 – Permit Year 13
# 6.1	Employee Training	Selectmen, DSTP, Water, Building, Planning, Conservation, Stormwater Working Group	Establish pollution prevention plan and good housekeeping procedures & schedules	Continued seeking training opportunities, but no training undertaken in 12th permit term	Plan to go to UNH Stormwater Center in 2015 with Supt. of Streets, Trees & Parks
Revised					
# 6.2	Improved Maintenance	DSTP, Water, Building	Increase frequency of maintenance and implement better storage practices	Vacuum truck cleaned ~70 structures in 2014-2015 & disposed of ~20 tons (including street sweepings) Annual street sweeping reduced through elimination of sand from de-icing practices Calibrate spreaders to reduce salt use	Work on database to track maintenance activities Continue to calibrate spreaders
Revised					
# 6.3	Improved stormwater treatment	DSTP, Water, Conservation, Planning	Upgrade current systems in sensitive areas	Completed SW retrofits at 3 sites with grant funds in 2014 (CZM, ATP)	SW retrofits at 3 sites to be implemented in 2015 (ATP, CZM) Continue to seek funding to retrofit town-owned sites to improve stormwater treatment (ATP)
Revised					
#6.4	Inter-department education	Conservation, Building, Water, DSTP, Sewer, Zoning	Continue informal education	Continued communicating the importance of stormdrain protection during road work for water, sewer, & drainline work performed by the town and the use of enhanced erosion controls	Continue to be vigilant with informal inter-departmental education of stormwater impacts to waterways Seek formal training sessions for all dept's.
#6.5	Improved Recycling	BOS, DSTP's, Recycling Committee	New BMP	Transfer station redesigned in 2013 to improve recycling DSTP's continues to sell compost bins which will help in eliminating food waste - notice on town website	Continue to advocate for increased recycling Continue to encourage composting to eliminate food waste from the waste stream
#6.6	Stormdrain Stenciling	Stormwater Working Group, DSTP's	Start and finish town-wide stenciling with educational doorhangers & newspaper articles	No stormdrain stenciling in 12 th permit term	Work with community groups to continue stenciling project in 2015 Write more newspaper articles on project, use website

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 – Permit Year 13
#7.1	Target 303d waterbodies for Water Quality Monitoring	Stormwater Working Group	Focus sampling on 303d impaired waterbodies to work toward removing them from 303d list	Completed 604(b) Final Report in May 2014 (DEP) Implemented SW retrofit systems at 3 town-owned site in estuary (CZM, ATP)	Seek grant funds to implement BMP retrofits at prioritized sites identified through 604(b) sampling (ATP & others) Implementing BMPs at 3 more sites in summer 2015 (CZM, ATP)
Revised					
#7.2	GIS Mapping	Stormwater Working Group	Complete mapping of stormdrain system and outfalls	Continued annual updates to OnlineGIS (CAI) Funds approved for GIS assessment, 3 ArcMap software licenses, & GIS training in 12 th permit term	Continue to upgrade OnlineGIS with updated & improved datalayers Training scheduled for staff in 2015 to improve town-wide GIS mapping capabilities
Revised					
#7.3	Stormwater Modeling	Stormwater Working Group	Focus modeling on 303d impaired waterbodies to work toward removing them from 303d list as well as bay needing TMDL	Completed 604(b) project and continued stormwater modeling of SW system and priority outfalls in 303d bay & Jones River	Seek grant funds in 2015 for further modeling of subwatersheds of 303d bay and lower Jones

Part IV. Summary of Information Collected and Analyzed

The following assessments were conducted in the year 2014-2015:

1. Town of Kingston completed DEP-funded 604(b) Water Quality Management Planning project including stormwater sampling of 10 outfalls (6 town-owned, 4 state-owned) in town center (Halls Brook and Jones River), prioritization of new outfalls for remediation, finalizing conceptual, preliminary, and final plans for BMP permitting & implementation in 2014 & 2015;
2. Board of Health beach sampling summer swim season 2014 with no closures; and
3. DMF/Harbormaster 2014 sanitary survey sampling of Kingston Bay.

Part V. Program Outputs & Accomplishments (OPTIONAL) * (Please see note below this section)

Programmatic

Stormwater management position created/staffed	(y/n)	n
Annual program budget/expenditures	(\\$)	ATM2011 – \$ 23,350.00 for NOI, SWMP & By-Law. Remaining budget for education & outreach = \$ 1,564.00

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	-Many (website) -51 (Conservation mailings) -All (Mass Recycles) -Many more (JRWA Programs)
Stormwater management committee established	(y/n)	Y - Informal
Stream teams established or supported	(# or y/n)	JRWA
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	2 miles
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	10 (in SSRC – 1 in Kingston/Dux)
▪ community participation	(#)	1,786 (in SSRC)
▪ material collected	(tons or gal)	Electronic Waste – 153 tons Textiles > 443 tons (SSRC)
School curricula implemented	(y/n)	Y (Water All Around You)

Legal/Regulatory

In Place	Prior to Phase II	Under Review	Drafted
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Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	Amended 2014	x		
▪ Erosion & Sediment Control		x		
▪ Post-Development Stormwater Management	Amended 2014	x		
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	Amended 2014	x		
▪ Erosion & Sediment Control		x		
▪ Post-Development Stormwater Management	Amended 2014	x		

Mapping and Illicit Discharges

Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	253
System-Wide mapping complete	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	100%
▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	4%
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	26.0%
% of population on septic systems	(%)	74.0%

Construction

Number of construction starts (>1-acre)	(#)	1
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	95%
Site inspections completed	(# or %)	35
Tickets/Stop work orders issued	(# or %)	2
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	5

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	95%
Site inspections completed	(# or %)	24
Estimated volume of stormwater recharged	(gpy)	75%

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	Once/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	Once/year
Total number of structures cleaned	(#)	~70
Storm drain cleaned	(LF or mi.)	~40 LF
Qty. of screenings/debris removed from storm sewer <i>infrastructure (includes street sweepings)</i>	(lbs. or tons)	~20 tons
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Bourne landfill
Cost of screenings disposal (<i>includes street sweepings</i>)	(\$)	~\$ 5,000.00

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/year
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1/year
Qty. of sand/debris collected by sweeping (<i>includes storm sewer screenings</i>)	(lbs. or tons)	~20 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Bourne landfill
Cost of sweepings disposal (<i>includes storm sewer screenings</i>)	(\$)	~\$ 5,000.00
Vacuum street sweepers purchased/leased	(#)	1 purchased
Vacuum street sweepers specified in contracts	(y/n)	N, but will be for porous pavements

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(lbs. or %)	?
▪ Herbicides	(lbs. or %)	?
▪ Pesticides	(lbs. or %)	?

Anti-/De-Icing products and ratios (50% NaCl or CaCl ₂ with 50% sand, depending on temperature)	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	50% 50% 0 0 0 0 0
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	Y(3 town trucks)
Estimated net reduction in typical year salt application	(lbs. or %)	0%(researching)
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N