

Municipality/Organization: Town of Carver
EPA NPDES Permit Number: MAR041099
MassDEP Transmittal Number: W- 039543
Annual Report Number & Reporting Period: Year 15
April 1, 2017 – March 31, 2018

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2018)

Part I. General Information

Contact Person: John Woods **Title:** Superintendent of Public Works

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Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: 

Printed Name: Alan Dunham

Title: Board of Selectmen, Chair

Date: 4/24/18

Part II. Self-Assessment

During Permit Year 15 (PY15), the Town of Carver continued to implement its Stormwater Management Program and to make progress towards complying with EPA's NPDES General Permit for Stormwater Discharges from Small MS4s, effective May 1, 2003.

In PY14, we hired a consultant to assist the Town to prepare for the new MS4 General Permit. This exercise including meetings with various Town staff to discuss the current stormwater management program and to discuss and strategize for new requirements.

Highlights of Carver's Stormwater Management Program to date include:

- Board of Health has developed stormwater regulations
- Carver adopted the *Illicit Connections and Discharges to the Municipal Storm Drain System Bylaw* (Chapter 9 Section 9.7), as part of their General Town Bylaws in 2011. This bylaw prohibits illicit discharges, illicit connections, and obstructions of the MS4, except allowable non-stormwater discharges, and allows the Town to take appropriate enforcement procedures and actions if needed, as required by the 2003 MS4 General Permit. The Town DPW is authorized to enforce this bylaw.
- The Town adopted the *Stormwater Management and Land Disturbance By-law* (Chapter 9, Section 9.6) under their General Bylaws on May 21, 2007 to address and manage construction site and post-construction stormwater runoff for new development and redevelopment. The bylaw is enforced by the Planning Board, and applies to all activities that result in disturbance of one or more acres of land that drains to the MS4. The bylaw includes issuance of a Land Disturbance Permit and the permit is also reviewed by the staff from Departments of Health, Public Works, Conservation and Building Inspector. The bylaw requires stormwater erosion control measures, promotes infiltration and recharge of groundwater controls waste from construction that may cause adverse impacts to water quality, and establishes the legal authority for compliance through inspection, monitoring and enforcement.
- An ongoing IDDE Program where outfalls have been mapped and non-stormwater discharges to the MS4 are reported to the Board of Health
- Each year, the DPW follows good housekeeping practices, upgrades the drainage system as needed, sweeps municipal streets and keeps the storm drain systems clean of debris through catch basin cleaning.

As part of developing the annual report, the Town evaluated compliance of the stormwater management program with the conditions of the General Permit, as required by Part II.D.1 of the permit. Evaluation of Permit Year 15 shows the Town

has continued to implement the majority of the Best Management Practices (BMPs) identified in the Notice of Intent (NOI) and met many of the measurable goals for these BMPs, and has continued to meet numerous General Permit requirements.

As part of the annual report development, the Town also evaluated the appropriateness of all BMPs in efforts towards achieving the defined measurable goals as required by Part II.D.2 of the permit. This year, BMPs and measurable goals continued to be appropriate.

Carver plans to reevaluate its Stormwater Management Plan in light of the new permit requirements and submit a Notice of Intent by the required deadline.

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PE-1	Flyer Distribution	DPW	Regularly at Town Buildings	Flyers regarding proper protection of outfalls and catch basins are available regularly at town buildings.	Continue to publish and distribute flyers throughout the year.
Revised					
PE-2	Informational Mailings	DPW	Houses adjacent to outfalls	Door hangers with educational information pertaining to stormwater pollution were distributed to all houses adjacent to outfalls in 2013.	Continue to mail or distribute educational information to all members of the Carver, Marion, Wareham, Regional Refuse Disposal District, and to homes adjacent to drainage outfalls.
Revised		<i>DPW & CMWRRDD</i>			

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PE-3	Community Group Meetings	DPW	Regular Meetings	Board of Health and Conservation Commission meetings are regularly announced and open to the public in accordance with Massachusetts public notice requirements. The Superintendent of Public Works attends such meetings upon request. The Carver Conservation Administrator regularly attends meetings of the Massachusetts Society of Municipal Conservation Professionals (MSMCP) and the Association of Massachusetts Wetland Scientists (AMWS) to discuss stormwater issues and updates to stormwater BMPs. This forum provides the opportunity to collaborate with neighboring communities and discuss stormwater issues of mutual interest.	Continue to announce and have Board of Health and Conservation Commissions open to the public. Continue to attend regional meetings to increase knowledge about regional issues and share resources.
Revised					
PE-4	Public Service Announcements	DPW	Cable Access Ads for Events	Carver's Community Access Television (CCAT) program continued public access channels 13, 14 & 15. Public service announcements related to stormwater meetings, hazardous waste days, recycling, cleanup day, etc. were placed on cable access TV. Program listings are available at the channel's website: www.ccat.cc	Continue to post Public Service Announcements on Community Access Television.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PE-5	Information Distribution	DPW Board of Health	Minimum of one post per year on town website	Informational postings regarding stormwater and environmental issues continue to be updated on the Town website: http://www.carverma.org	Continue to post information regarding stormwater and environmental issues on the Town's website.
Revised				<p>Brochures on state and local wetland bylaws and regulations, stormwater pollution prevention, and local water resources are all available at Town Hall.</p> <p>Announcements for regular Town Meetings are posted on the Town's website, along with meeting minutes for special department meetings, such as the Planning Board and Conservation Commission.</p> <p>There are two transfer stations that serve the Town of Carver/Rochester Convenience Facility and Benson Brook Road Transfer Station in Marion. Information about these transfer stations is posted on the Town website.</p>	<p>Continue to provide and update materials on stormwater and pollution prevention at Town Hall .</p> <p>Continue to announce Town Meeting's on the Town's website and also post minutes of each meeting on the website.</p> <p>Continue to update and post information regarding the two transfer stations on the Town 's website.</p>

1a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PP-I Revised	Storm Drain Stenciling	DPW	All storm drains by end of Year 3	Measurable goal met in prior permit year. All storm drains in the Town of Carver were stenciled in the original five-year permit term. The Town continues to monitor the condition of the stenciling regularly. The DPW is aware of the need to inspect stencils and repaint as necessary.	BMP support activities are ongoing: The DPW inspects and re-stencils storm drains as necessary.
PP-2 Revised	Hazardous Waste Day	DPW	Annually	Recycling opportunities are offered at the transfer station including use oil, tire and household goods. Information about recycling is posted on the Town’s website.	<p>Continue with organized cleanup days.</p> <p>Hazardous Waste and Electronic Recycling Day will be held Fall 2018 for Permit Year 16.</p> <p>CMWRRDD will continue to sponsor the programs at the Wareham Municipal Maintenance Department.</p> <p>Continue to inform the public with information regarding household hazardous wastes.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PP-3	Volunteer Monitoring Efforts	DPW	Annually	All residents are encouraged to report problems with the storm drain system. Local cranberry farmers have a special interest in proper functioning of the storm drain system and are quick to report problems. It is a priority of the DPW to quickly respond to reports.	Continue to encourage residents to report problems with the storm drain system.
Revised					
PP-4	Stormwater Monitoring Program (SWMP) Volunteer Review	DPW	Annually	The Town of Carver continues to present current Stormwater management activities to relevant department heads and employees on an annual basis, including regular public and private meetings.	Update and continue training.
Revised					

2a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
ID-1	Visual Inspection	DPW Board of Health	All outfalls quarterly	Measurable goal met in prior permit years. In prior permit years, outfalls were visually inspected by DPW staff on a regular basis. Outfalls in problem areas were visually more frequently.	Carver is in the process of evaluating its stormwater management program and planning for the new MS4 general permit, including the IDDE program.
Revised			Visit all MS4 outfalls at least once during permit term.	Carver's Board of Health has a pond testing program. Four area ponds (Sampson's, Cooper's, John's and Crystal) are monitored weekly for E. Coli from May through September each year. Bacteria forced the closure of Crystal Lake for one day during the summer of 2017 due to heavy rains. During spring 2017, Town staff were trained on IDDE protocol.	As needed, DPW and Board of Health staff will address identified or report illicit discharges to prevent pollution of local waterbodies. BOH will continue its pond testing program.
ID-2	Laboratory Analysis	DPW	When pollution is evident	No new problem outfalls were identified in Permit Year 15 and therefore laboratory analysis was not applicable.	DPW will continue to monitor the remediation activity at the gas station (RTN 4-17825).
Revised				In Permit Year 1, a problem at local gas station identified resulted in the site being assigned a MassDEP tracking number, RTN 4-17825. Long term monitoring of the cleanup operations is ongoing at this site. Tests are available at the Board of Health. No impacts from the site were found at the stormwater outfall nearby.	Other IDDE activities, including sampling and laboratory analysis, will be conducted as needed if potential sources of pollution are identified.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
ID-3	Identify and Map all outfalls	DPW	Map and ID all outfalls in the UA	Measurable goal has been met. Carver has developed a storm sewer system map that shows the locations of outfalls in the Urbanized Area and has the name of receiving water bodies that receive discharges from these outfalls.	Carver is in the process of reevaluating its GIS needs including stormwater outfall mapping.
Revised				Carver has also begun to include additional elements on the map including locations of catch basins and manholes. During spring 2017, Carver staff and the Town’s consultant visited locations in the drainage system to verify mapping. Numerous locations were found that did not meet the EPA definition of an outfall,	
ID-4	Remove source of contaminant	DPW	When pollution is evident	No new sources of contaminants have been identified in the Town in Permit Year 15.	The DPW will remove or require removal of sources when pollution is conformed in an outfall consistent with the Town’s IDDE bylaw.
Revised				In prior permit years, the Town inspected outfalls to identify illicit sources.	Other IDDE activities will be conducted as needed if potential sources of pollution are identified.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
ID-5	Develop and enact by-law	DPW	By end of year 2	The Town of Carver effectively prohibits non-stormwater discharges into the MS4 through the Illicit Connections and Discharges to Municipal Storm Drain System Bylaw adopted in June 2012. This Bylaw prohibits illegal discharges, illicit connections, obstruction of the MS4, and defines exemptions consistent with EPA's allowable non-stormwater discharges, and gives the DPW authority to implement enforcement procedures and actions. This measurable goal has been met.	Continue to enforce bylaw as needed.
Revised					

3a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
CS-I	Review Current By-law Develop New By-law if necessary	DPW	By the end of Year 2 have by-law in place Review annually, make amendments as needed	Measurable goal has been met. Carver adopted the Stormwater Management & Land Disturbance By-Law in May 2007 that applies to all activities that result in disturbance of one or more acres of land that drains to the municipal separate storm sewer system. The By-law gives the Planning Board authority to administer, implement, and enforce the by-law and issue Land Disturbance Permits.	The Town will continue to implement and enforce by-law and also continue previous permit year activities.
Revised			Adopt required by-law if deemed necessary	In addition, the Board of Health passed storm water regulations in October 2003 that provide uniform design standards for BMPs.	

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
CS-2	Provide Pre-Construction Information	Conservation Commission and Planning Department	Letters from developer to both Conservation Commission and Planning Department outlining conditions of construction activities.	The Conservation Commission and Planning Department are involved in all construction activities (new housing developments, road work, cranberry bogs, etc.) Orders of Conditions are issued by the Conservation Commission of the Town for any construction project within 100 feet of a wetland. 30 Orders of Conditions were issued in 2017.	Continue to enforce by-laws and regulations.
Revised				Orders of Construction Conditions are issued by Planning Department to the contractor. The Town requires that developers to submit a letter to the Conservation Commission and Planning Board outlining all construction activities. The town includes stormwater regulations as appropriate as part of the Planning Department approval process.	
CS-3	Site Inspections	Conservation Commission or Planning Dept	Minimum 1 site visit per construction activity	Conservation Commission Town 's Engineer conducted site visits to inspect construction activities to ensure construction conditions are being met. The Town enforces that there be a minimum of one site visit by the Conservation Commission per each construction activity.	Continue site inspections per by-law requirements
Revised					

4a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
PC-I	Visual Monitoring	Conservation Commission and Planning Department as necessary	1 visit following completion of project	Conservation Commission, DPW and Planning Department conduct post construction inspections. A certificate of compliance is issued by the Conservation Commission upon completion of construction in accordance with the Order of Conditions on projects they are involved in.	Implement and enforce by-law.
Revised					
PC-2	Post-construction by-law	DPW	By end of Year 2 have by-law in place	Measurable goal was met. Carver adopted the Stormwater Management & Land Disturbance By-Law in May 2007 that applies to all activities that result in disturbance of one or more acres of land that drains to the municipal separate storm sewer system. The By-law gives the Planning Board authority to administer, implement, and enforce the by-law and issue Land Disturbance Permits.	Implement and enforce by-law.
Revised					

5a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

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 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
GH-1 Revised	Employee Training	DPW	Annually As needed and for new employees	Carver has trained its employees on worker safety including hazardous materials management. Carver continues to identify opportunities for employee education and training relating to protection of water quality. Records of attendance are kept at the DPW office. In 2017, six DPW employees attended training events.	Continue training for all employees relating to protection of water quality.
GH-2 Revised	Operations and Maintenance Schedule	DPW	Complete by end of Year 1	Operations and maintenance schedule completed in Permit Year 1. The Town maintains a 35-vehicle fleet, and 80 pieces of equipment on a regular basis.	No further activities are planned. Measurable goals met.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
GH-3	Operations and Maintenance Implementation	DPW	Follow schedule Years 2 through 10	<p>The Town conducts catch basin cleaning and outfall inspection on a yearly schedule and more frequently in problem areas. DPW keeps up to date records of cleanings and inspections.</p> <p>The Town has approximately 1,000 catch basins; and the DPW cleans between 300-400 catch basins annually. Street sweepings and catch basin cleanings are disposed of at the Rochester Waste Facility.</p> <p>DPW cleaned about half the number of drainage easement areas of approved developments in Town (there are about 75 such drainage easements in total).</p> <p>The DPW swept all Town-owned roads in Permit Year 15 (over 80 miles).</p> <p>The DPW follows winter deicing best practices using a 2:1 sand salt ratio and calibrating spreaders to minimize use. The amount of sand and salt used is recorded annually. In winter 2018, the DPW used 1,000 tons of salt and approximately 2,300 tons of road sand.</p>	<p>Continue catch basin cleaning and maintenance. Keep records of all catch basin cleaned at the DPW office</p> <p>Continue cleaning and maintenance of drainage easement areas in Town. Keep records of all drainage easements maintenance at the DPW office.</p>
Revised					
GH-4	Record keeping	DPW	Keep records for each BMP employed	Town maintains paper and electronic records of good housekeeping activities.	Continue to maintain records.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 15 (Reliance on non-municipal partners indicated, if any)	Planned Activities Permit Year 16
GH-5	Proper Storage of Materials	DPW	All materials labeled and in suitable containers	The DPW continued to store materials in a manner that reduces or eliminates threats to water quality from stormwater, including storing hazardous materials indoors/under cover, covered as applicable, and as needed in secondary containment. Carver also has a covered winter deicing salt storage shed. Approximately 275 gallons of waste oil were recycled by a certified hazardous waste hauler.	Continue to store materials in a manner that reduces or eliminates threats to water quality.
Revised					
GH-6	Catch Basin Cleanout	DPW	Regular maintenance and cleanout of catch basins	Carver's DPW has an annual catch basin clean out program using town-owned equipment. In addition, catch basins are cleaned on an as-needed basis. Cleanout logs are maintained. Problems are noted and addressed.	Continue annual catch basin cleanout program.
Revised					
GH-7	Storm Sewer Maintenance and Improvements	DPW	Improvements to storm sewer infrastructure	The DPW continued replacement of aprons on outfalls and resetting of catch basins and drain manhole covers as part of work on Route 58; also continued clearing of vegetation and brush surrounding outfalls and in drainage easements.	There were no infrastructure problems during Permit Year 14. The DPW will continue the replacement of aprons on outfalls and resetting or rebuilding of drainage structures on Route 58. DPW will continue to monitor the storm water system for any problems

6a. Additions

No new BMPs are being added at this time. The Town of Carver will reevaluate its Stormwater Management Program for consistency with the new general permit requirements and add or modify BMPs as needed as part of developing the NOI and SWMP for the new permit.

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

There are no final TMDLs that apply to waterbodies within the Town of Carver, and therefore no BMPs are needed to address TMDLs.

7a. Additions

No additions at this time.

7b. WLA Assessment

Not applicable.