

**Municipality/Organization:** Town of Carver  
**EPA NPDES Permit Number:** MAR041099  
**MassDEP Transmittal Number:** W- 039543  
**Annual Report Number & Reporting Period:** Year 12  
April 1, 2014 – March 31, 2015

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

### 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: Ronald E. Clarke

Title: Board of Selectmen, Chair

Date: December 30, 2016

## Part II. Self-Assessment

The Town of Caver has 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. Due to an unusually high turnover in municipal staff in recent years, the annual reports for permit years 11 through 13 were not submitted to EPA and MassDEP by the due dates. The Town has chosen to develop one report to cover this time period, with separate certification cover sheets for permit years 11, 12, and 13 for filing purposes.

Highlights of Carver's Stormwater Management Program for permit years 11 through 13 include:

- Ongoing public education, outreach, and participation
- 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 Years 11 through 13 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 continue 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**

| <b>BMP ID #</b> | <b>BMP Description</b> | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>   | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)   | <b>Planned Activities Permit Year 14</b>   |
|-----------------|------------------------|--------------------------------------|-----------------------------|--|--|
| PE-1            | Flyer Distribution     | DPW                                  | Regularly at Town Buildings | Flyers are distributed annually to advertise the household hazardous waste day. 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 &amp; CMWRRDD</i>             |                             | Annual mailings are sent to all members of the Carver/Marion/Wareham Regional Refuse Disposal District (CMWRRDD) announcing the schedule for Household Hazardous Waste Collection Days, held the first weekend in May each year. |  |

| <b>BMP ID #</b> | <b>BMP Description</b>       | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>   | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)  | <b>Planned Activities Permit Year 14</b>   |
|-----------------|------------------------------|--------------------------------------|-----------------------------|---|--|
| 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.   | Continue to announce and have Board of Health and Conservation Commissions open to the public. |
| Revised         |                              |                                      |                             |   |  |
| PE-4            | Public Service Announcements | DPW                                  | Cable Access Ads for Events | Carver's Community Access Television (CCAT) program continued on 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:<br><a href="http://www.ccat.cc">www.ccat.cc</a> | 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 11-13<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities Permit Year 14   |
|----------|--------------------------|-------------------------------|--|--|---|
| 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:<br><a href="http://www.carverma.org">http://www.carverma.org</a>  | Continue to post information regarding stormwater and environmental issues on the Town's website  |
| Revised  |                          |                               |  | 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.<br><br>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. | Continue to announce Town Meeting's on the Town's website and also post minutes of each meeting on the website.<br><br>Continue to update and post information regarding the two transfer stations on the Town's website. |

**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 11-13<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities Permit Year 14  |
|-----------------|------------------------|-------------------------------|-----------------------------------|---|--|
| PP-I<br>Revised | Storm Drain Stenciling | DPW                           | All storm drains by end of Year 3 | All storm drains in the Town of Carver were stenciled in the original 5 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.   | The DPW inspects and re-stencils storm drains as necessary   |
| PP-2<br>Revised | Hazardous Waste Day    | DPW                           | Annually                          | Household hazardous waste collection, including electronics recycling was held on the first Saturday in May every year during Permit Year 11-13 at the Wareham Municipal Maintenance Department in Wareham.<br><br>This programs were sponsored through the Carver/ Marion/ Wareham Regional Refuse Disposal District (CMWRRDD). CMWRRDD continues to inform residents of opportunities to dispose of household hazardous wastes. | Continue with organized cleanup days.<br><br>Hazardous Waste and Electronic Recycling Day will be held May 4, 2017 for Permit Year 14.<br>CMWRRDD will continue to sponsor the programs at the Wareham Municipal Maintenance Department.<br><br>Continue to inform the public with information regarding household hazardous wastes. |

| <b>BMP ID #</b> | <b>BMP Description</b>                                | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b> | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)  | <b>Planned Activities Permit Year 14</b>  |
|-----------------|---|--------------------------------------|---------------------------|---|---|
| PP-3            | Volunteer Monitoring Efforts                          | DPW                                  | Annually                  | All residents are encouraged to report problems in 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 11-13<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities Permit Year 14   |
|---------------------|---------------------|-------------------------------|---------------------------|---|---|
| ID-1<br><br>Revised | Visual Inspection   | DPW<br>Board of Health        | All outfalls quarterly    | <p>In prior permit years, outfalls were visually inspected by DPW staff on a regular basis. Outfalls in problem areas were visually more frequently.</p> <p>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 during the summer of 2016 due to heavy rains.</p>                           | <p>Carver is in the process of evaluating its stormwater management program and planning for the new MS4 general permit, including the IDDE program.</p> <p>As needed, DPW and Board of Health staff will address identified or report illicit discharges to prevent pollution of local waterbodies.</p> <p>BOH will continue its pond testing program.</p> |
| ID-2<br><br>Revised | Laboratory Analysis | DPW                           | When pollution is evident | <p>No new problem outfalls were identified in Permit Year 11-13 and therefore laboratory analysis was not applicable.</p> <p>In Permit Year I, a problem at local gas station identified resulted in the site being assigned a MassDEP tracking number, RTN 4-17825.</p> <p>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.</p> | <p>DPW will continue to monitor the remediation activity at the gas station (RTN 4-17825).</p> <p>Other IDDE activities, including sampling and laboratory analysis, will be conducted as needed if potential sources of pollution are identified.</p>  |

| <b>BMP ID #</b> | <b>BMP Description</b>        | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>         | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)   | <b>Planned Activities Permit Year 14</b>   |
|-----------------|-------------------------------|--------------------------------------|-----------------------------------|--|--|
| ID-3<br>Revised | Identify and Map all outfalls | DPW                                  | Map and ID all outfalls in the UA | <p>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.</p> <p>Carver has also begun to include additional elements on the map including locations of catch basins and manholes.</p> | Carver is in the process of reevaluating its GIS needs including stormwater outfall mapping.   |
| ID-4<br>Revised | Remove source of contaminant  | DPW                                  | When pollution is evident         | <p>No new sources of contaminants have been identified in the Town in Permit Years 11, 12, or 13.</p> <p>In prior permit years, the Town inspected outfalls to identify illicit sources.</p>   | <p>The DPW will remove or require removal of sources when pollution is conformed in an outfall consistent with the Town’s IDDE bylaw.</p> <p>Other IDDE activities will be conducted as needed if potential sources of pollution are identified.</p> |

| BMP ID #        | BMP Description          | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 11-13<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities Permit Year 14    |
|-----------------|--------------------------|-------------------------------|--------------------|---|--------------------------------------|
| ID-5<br>Revised | Develop and enact by-law | DPW                           | By end of year 2   | The Town of Carver effectively prohibits non-storm water discharges into the MS4 through the <i>Illicit Connections and Discharges to Municipal Storm Drain System Bylaw</i> 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. | Continue to enforce bylaw as needed. |

**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 11-13<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities Permit Year 14   |
|----------|--|-------------------------------|---|---|---|
| CS-I     | Review Current By-law<br>Develop New By-law if necessary | DPW                           | By the end of Year 2 have by-law in place<br><br>Review annually, make amendments as needed | <p>Carver adopted the <i>Stormwater Management &amp; Land Disturbance By-Law</i> 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.</p> <p>In addition, the Board of Health passed storm water regulations in October 2003 that provide uniform design standards for BMPs.</p> | The Town will continue to implement and enforce by-law and also continue previous permit year activities. |
| Revised  |  |                               |   |   |   |

| <b>BMP ID #</b> | <b>BMP Description</b>               | <b>Responsible Dept./Person Name</b>            | <b>Measurable Goal(s)</b>   | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)  | <b>Planned Activities Permit Year 14</b>          |
|-----------------|--------------------------------------|---|---|---|---|
| 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.)   | Continue to enforce by-laws and regulations.      |
| Revised         |                                      |   |   | Orders of Conditions are issued by the Conservation Commission of the Town for any construction project within 100 feet of a wetland. 102 Orders of Conditions were issued in 2013-2015.<br><br>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 11-13<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities Permit Year 14 |
|----------|--------------------------|--|---|--|-----------------------------------|
| PC-1     | 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   | 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 11-13<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities Permit Year 14   |
|-----------------|---|-------------------------------|------------------------------------|---|---|
| GH-1<br>Revised | Employee Training                         | DPW                           | Annually                           | 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.   | Continue training for all employees relating to protection of water quality.  |
| GH-2<br>Revised | Operations and Maintenance Schedule       | DPW                           | Complete by end of Year I          | Operations and maintenance schedule completed in Permit Year I.   | No further activities are planned. Measurable goals met.  |
| GH-3<br>Revised | 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</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>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> |

| <b>BMP ID #</b> | <b>BMP Description</b>                   | <b>Responsible Dept./Person Name</b> | <b>Measurable Goal(s)</b>                        | <b>Progress on Goal(s) – Permit Year 11-13</b><br>(Reliance on non-municipal partners indicated, if any)  | <b>Planned Activities Permit Year 14</b>  |
|-----------------|--|--------------------------------------|--|---|---|
| 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         |  |                                      |  |   |   |
| 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. | 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.<br><br>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 within Permit Years 11-13. 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.