

**Municipality/Organization:** Town of Berkley, MA

---

**EPA NPDES Permit Number:** MAR041092

---

**MassDEP Transmittal Number:** W-41005650

---

**Annual Report Number** **Year 10**  
**& Reporting Period:** **April 1, 2012 to March 31, 2013**

---

## **NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)**

### **Part I. General Information**

Contact Person: Scott A. Fournier

Title: Highway Surveyor

---

Telephone #: 508-824-8380

Email: Berhig@comcast.net

---

Mailing Address: 3R North Main Street, Berkley, MA 02779

---

#### 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: Scott A. Fournier

---

Title: Highway Surveyor

---

Date:

---

## **Part II. Self-Assessment**

**The town of Berkley has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:**

**Due to major budget cuts in Town, the Town was unable to implement all the elements of the Storm Water Management Program by the expiration date of the first permit term, including Year 10 of the program. Specifically, the Town failed to implement water quality monitoring per BMP No. 2-2; failed to map all town-owned outfalls per BMP No 3-2; failed to develop an illicit discharge identification program per BMP No. 3-3.**

**The Town was able to complete mapping of a portion of the town-owned outfalls and structures. During June 2012 approximately 60 outfalls were located using GPS and another 450 manholes and catchbasins were mapped. This represents about 40% of the Town. The outfalls were assessed for dry weather flows and no visual evidence of illicit discharges was noted in any of the outfalls during the mapping period.**

**At the Town Meeting held in June of 2012 the Highway Department obtained \$6,500.00 for stormwater management which will be used to continue outfall and catchbasin inventory and mapping. This will be conducted in CY 2013. A subsequent article for stormwater funding is being requested for Annual Town Meeting in June 2013 to obtain additional funding for IDDE efforts and outfall mapping.**

**The Highway Surveyor participated in an educational program with the local 4-H club during July of 2012. The program centered around the environment, with a particular focus on stormwater and the damage it can cause the environment. Concepts discussed included IDDE sources such as septic systems, erosion controls, and LID practices including rain gardens.**

### 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 10<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities   |
|----------|---|---|--|--|--|
| 1-1      | Create Stormwater Program and target groups likely to impact Stormwater | Board of Selectmen and Highway Surveyor | Prepare and send a mailing to residents. Post educational materials on stormwater on public kiosks         | Stormwater information has been posted on public kiosks at Town Hall and at the Highway Department   | Continue to post stormwater educational materials on public kiosks in Town Hall and at the Highway Department.   |
| Revised  |   |   |  |  |  |
| 1-2      | Target Student Audiences with stormwater information                    | Board of Selectmen and Highway Surveyor | Obtained a copy of “After the Storm” video.  | Video was provided to the school for incorporation into programs. Educational discussion with the local 4-H club during Year 10.   | Continue to provide multi-media information as it becomes available through regulators or other NGO’s from whom the Town can obtain the material at no cost. |
| Revised  |   |   |  |  |  |
| 1-3      | Utilize Public Access Channel   | Board of Selectmen and Highway Surveyor | Obtained copy of “After the Storm” video to show on Public Access Channel                                  | Video was shown and was provided to school system thereafter. The Town will continue to utilize public access channels for dissemination of information regarding stormwater | No further activities are planned at this time. Further consideration for use of public access will be given as new material becomes available.              |
| Revised  |   |   |  |  |  |
| 1-4      | Promote household hazardous waste recycling                             | Recycling and Solid Waste Department    | The Town’s Recycling and Solid Waste Department accepts Hazardous Wastes during their usual business hours | The Town’s Recycling and Solid Waste Department accepts Hazardous Wastes during their usual business hours for proper disposal.  | Continue to encourage the citizens of the Town of Berkley to dispose of their hazardous wastes properly in the containers provided.                          |
| Revised  |   |   |  |  |  |

**1a. Additions**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 2. Public Involvement and Participation

| BMP ID # | BMP Description                             | Responsible Dept./Person Name | Measurable Goal(s)   | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities   |
|----------|---|-------------------------------|--|--|--|
| 2-1      | Host Public Meetings on Stormwater          | Board of Selectmen            | Host joint meeting with local watershed groups.                        | No activities were conducted in Permit Year 10.  | No activities are proposed for Year 11 due to budget cuts.   |
| Revised  |   |                               |  |  |  |
| 2-2      | Organize volunteer water quality monitoring | Board of Selectmen            | Form stream teams and conduct water quality monitoring.                | No progress has been made on this BMP.   | Due to limited availability of staff, no activities are anticipated for Year 11. Further consideration will be given when the new permit is issued and conditions of the permit are clarified. |
| Revised  |   |                               |  |  |  |
| 2-3      | Townwide Clean Ups                          | Board of Selectmen            | Work with local community groups to conduct annual townwide clean ups. | At this time a townwide clean up is not scheduled due to budget cuts and also busy schedules.  | Try to reinstate the Town Wide spring cleanups.  |
| Revised  |   |                               |  |  |  |
| Revised  |   |                               |  |  |  |
| Revised  |   |                               |  |  |  |

### 2a. Additions

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description                         | Responsible Dept./Person Name         | Measurable Goal(s)  | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any)   | Planned Activities   |
|----------|---|---------------------------------------|---|--|--|
| 3-1      | Review Existing Bylaws                  | Board of Selectmen and Planning Board | Update Bylaws to address non-stormwater discharges to MS4.                            | At the Annual Town Meeting held on June 22, 2009 new additions to the bylaws were approved in regards to stormwater discharges.  | Town Staff will continue to oversee needed changes in the Town Bylaws to regulate non stormwater discharges to the MS4.  |
| Revised  |   |                                       |   |  |  |
| 3-2      | Map Outfalls                            | Highway Surveyor                      | Locate all outfalls and map all locations and identify receiving waters by the end of | 40% of Town infrastructure - outfalls, catchbasins and manholes were mapped using GPS mapping technology in Year 10. Mapping was prioritized on areas of the Town immediately adjacent to the Taunton River. | Additional areas of the Town will receive GPS mapping in Year 11. It is planned that the Town will complete most of the mapping of structures in CY 2013.  |
| Revised  |   |                                       |   |  |  |
| 3-3      | Procedure for non-stormwater discharges | Highway Surveyor                      | Development of program to detect illicit discharges.                                  | An initial assessment of GPS outfalls from BMP 3-2 was completed in Year 10. No illicit discharges were noted using visual assessment techniques.  | Further visual assessments will be conducted with continued GPS structure mapping. Upon completion of the mapping efforts to prioritize and formalize an IDDE program will be started in Year 11 budgets permitting. |
| Revised  |   |                                       |   |  |  |
| 3-4      | Establish Hotline                       | Selectmen                             | Provide contact information to public to report illegal dumping .                     | The hotline was established during Year 5.   | Continue to staff and monitor information provided via the hotline.  |
| Revised  |   |                                       |   |  |  |

#### 3a. Additions

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#### 4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description  | Responsible Dept./Person Name | Measurable Goal(s)  | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any)         | Planned Activities   |
|----------|--|-------------------------------|---|--|--|
| 4-1      | Review Site Plan<br>Review section of<br>Zoning Bylaw                    | Planning Board                | Review and identify<br>need to draft changes<br>to the bylaw.   | Changes were brought to the Town<br>Meeting Floor on June 22, 2009 and<br>accepted by the Townspeople. | Town Staff, with the assistance of a<br>consultant, will continue to review<br>local bylaws and as needed continue<br>to update the Town Bylaws. |
| Revised  |  |                               |   |  |  |
| 4-2      | Revise Site Inspection<br>and Enforcement<br>Control Measures<br>Program | Planning Board                | This program will be<br>evaluated and if<br>necessary modified. | Changes were brought to the Town<br>Meeting Floor on June 22, 2009 and<br>accepted by the Townspeople. | Town Staff, with the assistance of a<br>consultant, will continue to review<br>local Town bylaws and as needed<br>continue to update them.       |
| Revised  |  |                               |   |  |  |
| Revised  |  |                               |   |  |  |
| Revised  |  |                               |   |  |  |
| Revised  |  |                               |   |  |  |
| Revised  |  |                               |   |  |  |

##### 4a. Additions

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## 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 10<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities  |
|----------|--|-------------------------------|---|---|---|
| 5-1      | Review and modify Bylaws to meet requirements for post development runoff control. | Planning Board                | Review existing bylaws and draft modifications. Bylaw revisions will be submitted to Town meeting.  | By-law was passed on June 2, 2008 at Town Meeting and also revisions to update the bylaw was passed on June 22, 2009  | Continue to develop regulations to support the by-law (both implementation and enforcement)   |
| Revised  |  |                               |   |   |   |
| 5-2      | Revise subdivision Rules and Regulations   | Planning Board                | Review the Subdivision Rules and Regulations. Modifications, as necessary will be drafted and a public meeting held. The final modifications will be presented to Board for a vote. | Changes to the by-laws were voted on at the Annual Town Meeting on June 22, 2009 to regulate any increased amount of stormwater runoff or pollutants flowing from a parcel of land, or any activity that will alter the drainage characteristics of a parcel of land. All new development and redevelopment under the jurisdiction of this bylaw as prescribed in this bylaw shall be required to obtain a Storm Water Management Permit. | Town Staff, with the assistance of a consultant will continue to review local regulations and continue to develop regulations as warranted. |
| Revised  |  |                               |   |   |   |
| Revised  |  |                               |   |   |   |
| Revised  |  |                               |   |   |   |

### 5a. Additions

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |



## 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 10<br>(Reliance on non-municipal partners indicated, if any)  | Planned Activities  |
|----------|---|-------------------------------|--|---|---|
| 6-1      | Employee Training   | Highway Surveyor              | A plan to train employees will be established.   | The Highway Department conducts continual training of all employees, including initial training of new employees.                       | The Highway Department will continue to implement employee training program.  |
| Revised  |   |                               |  |   |   |
| 6-2      | Develop & Implement a plan to prevent and reduce pollutant runoff from municipal operations | Highway Surveyor              | Develop a plan to log and schedule, repair, install and maintain drainage system.  | No further progress was achieved on this BMP.   | Town will continue to work toward finalizing and adopting a plan for municipal operations.                                  |
| Revised  |   |                               |  |   |   |
| 6-3      | Pollution Prevention Plan   | Highway Surveyor              | Highway Department will review all department facilities for stormwater contamination potential and prepare a pollution prevention plan. | Due to limited staff availability no progress was made on this BMP.   | Highway Department will endeavor to prepare a pollution prevention plan for their facilities in the future.                 |
| Revised  |   |                               |  |   |   |
| 6-3      | Catch Basin Cleaning  | Highway Surveyor              | Clean and inspect all catch basins annually and periodically when needed   | Utilizing a clam shell, the Town cleaned all catch basins on an annual basis. Emergency cleaning of catch basins also done when needed. | Continue to implement annual cleaning of all catch basins and emergency cleanings when needed due to inclement weather etc. |
| Revised  |   |                               |  |   |   |
|          | Street Sweeping   | Highway Surveyor              | Perform street sweeping of all Town roads annually   | The Town performed annual street sweeping of all Town roadways.   | Continue to implement annual sweeping of town roadways.   |
| Revised  |   |                               |  |   |   |

**6a. Additions**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 10<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities |
|----------|-----------------|-------------------------------|--------------------|--|--------------------|
| Revised  |                 |                               |                    |  |                    |
| Revised  |                 |                               |                    |  |                    |
| Revised  |                 |                               |                    |  |                    |
| Revised  |                 |                               |                    |  |                    |

**7a. Additions**

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**7b. WLA Assessment**

#### Part IV. Summary of Information Collected and Analyzed

No additional data was collected other than that provided herein.

#### Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2012 through March 31, 2013)

##### Programmatic

|   | (Preferred Units) | Response |
|---|-------------------|----------|
| Stormwater management position created/staffed                | (y/n)             | N        |
| Annual program budget/expenditures **                         | (\$)              | \$6500   |
| Total program expenditures since beginning of permit coverage | (\$)              |          |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) |                   | General  |
|   |                   |          |

##### Education, Involvement, and Training

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

## Legal/Regulatory

|  | In Place<br>Prior to<br>Phase II | Reviewing<br>Existing<br>Authorities                                    | Draft<br>in<br>Review | Adopted |
|--|----------------------------------|---|-----------------------|---------|
| Regulatory Mechanism Status (indicate with “X”)    |                                  |   |                       |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  | Planning Board,<br>Highway Surveyor,<br>Board of Health<br>Zoning Board |                       | 6/22/09 |
| ▪ Erosion & Sediment Control                       |                                  | Planning Board<br>Highway Surveyor<br>Board of Health<br>Zoning Board   |                       | 6/22/09 |
| ▪ Post-Development Stormwater Management           |                                  | Planning Board<br>Highway Surveyor<br>Board of Health<br>Zoning Board   |                       | 6/22/09 |
| Accompanying Regulation Status (indicate with “X”) |                                  |   |                       |         |
| ▪ Illicit Discharge Detection & Elimination        |                                  | Planning Board<br>Highway Surveyor<br>Board of Health<br>Zoning Board   |                       | 6/22/09 |
| ▪ Erosion & Sediment Control                       |                                  | Planning Board<br>Highway Surveyor<br>Board of Health<br>Zoning Board   |                       | 6/22/09 |
| ▪ Post-Development Stormwater Management           |                                  | Planning Board<br>Highway Surveyor<br>Board of Health<br>Zoning Board   |                       | 6/22/09 |

## Mapping and Illicit Discharges

|  | (Preferred Units)       | Response |
|--|-------------------------|----------|
| Outfall mapping complete   | (%)                     | 40%      |
| Estimated or actual number of outfalls                             | (#)                     | E 160    |
| System-Wide mapping complete (complete storm sewer infrastructure) | (%)                     | 20%      |
| Mapping method(s)  |                         |          |
| ▪ Paper/Mylar  | (%)                     |          |
| ▪ CADD   | (%)                     |          |
| ▪ GIS  | (%)                     | 100%     |
| Outfalls inspected/screened **                                     | (# or %)                | 40%      |
| Outfalls inspected/screened (Since beginning of permit coverage)   | (# or %)                | 40%      |
| Illicit discharges identified **                                   | (#)                     | 0        |
| Illicit discharges identified (Since beginning of permit coverage) | (#)                     | 0        |
| Illicit connections removed **                                     | (# ); and<br>(est. gpd) | 0        |
| Illicit connections removed (Since beginning of permit coverage)   | (#); and<br>(est. gpd)  | 0        |
| % of population on sewer   | (%)                     | 0        |
| % of population on septic systems                                  | (%)                     | 100      |

## Construction

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

## Post-Development Stormwater Management

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

## Operations and Maintenance

|  |                |       |
|--|----------------|-------|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **           | (times/yr)     | 1/yr  |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) ** | (times/yr)     | 1/yr  |
| Qty of structures cleaned **   | (#)            | E 400 |
| Qty. of storm drain cleaned **   | (%, LF or mi.) |       |
| Qty. of screenings/debris removed from storm sewer infrastructure **                         | (lbs. or tons) |       |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **             | (location)     |       |

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

|   | (Preferred Units)     | Response   |
|---|-----------------------|------------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)            | 1/yr       |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)            | 1/yr       |
| Qty. of sand/debris collected by sweeping **  | (lbs. or tons)        |            |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)            | 3 No. Main |
| Annual Sweeping Costs   |                       |            |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)                  |            |
| • Hourly or lane mile contract rate **  | (\$/hr. or<br>ln mi.) |            |
| • Disposal cost**   | (\$)                  |            |
| Sweeping Equipment  |                       |            |
| • Rotary brush street sweepers owned/leased   | (#)                   | 1          |
| • Vacuum street sweepers owned/leased   | (#)                   | N/A        |
| • Vacuum street sweepers specified in contracts   | (y/n)                 |            |
| • % Roads swept with rotary brush sweepers **   | %                     | 100%       |
| • % Roads swept with vacuum sweepers **   | %                     | N/A        |

Reduction (since beginning of permit coverage) in application on public land of:  
 (“N/A” = never used; “100%” = elimination)



|  |             |     |
|--|-------------|-----|
| ▪ Fertilizers  | (lbs. or %) | 0%  |
| ▪ Herbicides   | (lbs. or %) | 0%  |
| ▪ Pesticides   | (lbs. or %) | 0%  |
| Integrated Pest Management (IPM) Practices Implemented | (y/n)       | N/A |

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

### Water Supply Protection

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