

Municipality/Organization: **Town of Townsend**

EPA NPDES Permit Number: MAR041228

MassDEP Transmittal Number: W-036204

Annual Report Number **Year 9**
& Reporting Period: **April 1, 2011 – March 31, 2012**

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2012)

Part I. General Information

Contact Person: Karen Chapman

Title: Co-Land Use Coordinator

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Mailing Address: 272 Main Street, Townsend, MA 01469

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: *Karen Chapman*

Printed Name: Karen Chapman

Title: Co-Land Use Coordinator

Date: April 30, 2012

Part II. Self-Assessment

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

Part II.B.3(a) The Town has not yet developed a complete storm sewer map. There are several subdivision maps which contain partial information, but there is not one map containing the entire Town. A portion of Route 119 bisects the entire Town and is a significant portion of the MS4 Regulated Area. The State Highway Department, District III office has provided GIS mapping information regarding outfalls along Route 119. A GPS unit is being purchased and will be used to complete the mapping. Lack of funding and personnel hours have limited our ability to complete this project.

Part II.B.3(c) The Town has successfully passed an Illicit Discharges to the Municipal Storm Drain System Bylaw, but has yet to adopt a plan to detect and address non-stormwater discharges into the system. The adopted Bylaw does contain some elements of the required plan within it.

Part II.C Although protection of our drinking water supply is addressed under a local Aquifer Protection District Bylaw and Groundwater Protection District Bylaw, a significant portion of the MS4 Regulated Area contains Route 119 which is under State control.

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 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|-----------------|---|--------------------------------------|---|--|--|
| 1a Revised | Distribute/post nonpoint Source Pollution posters | Land Use Coordinator | Completed year 1 | | |
| 1b Revised | Stormwater message on Local cable access channel | Land Use Coordinator | Completed. | | New messages will be developed to be broadcast on a continuous schedule. |
| 1c Revised | Obtain/Distribute Auto Shop brochures | Land Use Coordinator | Distribute brochures in tax bill annually | No progress | Tax bills are no longer distributed from Town Hall so brochures will be mailed directly to the appropriate businesses. |
| 1d Revised | Add Stormwater information to Town’s Website | Land Use Coordinator | Update Stormwater info on website to ensure it is current | New town website has been developed and will be available to the public by June 30, 2012. | Place all brochures and information on new website. |
| 1e Revised | Distribute brochures in water bills | Land Use/Water Department, | Insert in biannual water bill | Brochure on lawn watering and water conservation inserted in to water bills. | Insert brochure on an annual basis and update if applicable. |
| 1f Revised | Host Lawn Care Seminar | Conservation Commission | Hold Seminar | Completed. Water department developed water conservation bylaw. | Water conservation bylaw will be presented at Fall 2012 Special Town Meeting. |
| 1g Revised | Develop dog waste bylaw | Land Use | Have bylaw passed at Town Meeting | Completed. | |

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|---------|--|-------------------------|---|------------|---|
| 1h | Distribute Stormwater Pollution Prevention brochure to residents | Conservation Commission | Distribute brochure in property tax bills | Completed. | Will post information on town website rather than future direct mailing which is very costly. |
| Revised | | | | | |

1a. Additions

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2. Public Involvement and Participation

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|-----------------|---|---|-------------------------------------|---|--|
| 2a Revised | Advisory Committee | Land Use Coordinator | Formed year one. | No progress. Land Use Coordinator works with Highway Dept and Conservation Commission on issues. | Consider developing Stormwater Implementation Committee with oversight of town wide stormwater issues. |
| 2b Revised | Adopt-a-Highway Program | Land Use Coordinator, Recycling Committee, Highway Dept | Target at least one street per year | Recycling Committee held a street clean-up on 4/30/2011 in association with Earth Day. Friends of Willard Brook held street clean ups in May and November, 2011 on the streets around Pearl Hill State Park and Willard Brook State Park. Highway Dept has “Operation Neat Streets” where several organizations clean up specific streets every year. | Continue on an annual basis. . |
| 2c Revised | Hazardous Waste Day Collection | Fire Department Board of Health | Hold twice per year | A new regional hazardous waste collection site has being constructed at Devens. It opened in 2011 with two days a week open for participating communities, of which Townsend is one. | Continue participation in regional facility. |
| 2d Revised | Continue Waste Oil Collection & Recycling | Highway Department | Hold first Saturday Monthly | Held monthly. Highly successful. Town-wide participation | Continue. Monthly participation continued. |
| 2e Revised | Volunteer annual stream clean-up day | Land Use Coordinator, Conservation Commission | One clean-up day every spring | Friends of Willard Brook have initiated stream clean-up days with volunteers. | Continue effort to establish Town organization despite liability issues. |

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| 2f | Hold Earth Day Celebration | Recycling Committee, Recreation Commission | Hold Earth Day Celebration | Completed. Earth Day Celebration held on April 30, 2011. Theme was "Going Organic". Activities included outdoor/indoor plant swap, recycling booth, Organic Lawn Care presentation, and booths representing the Hannaford Supermarkets, Townsend Recycling Committee, Friends of Willard Brook, Townsend Conservation Land Trust, North Central Regional Solid Waste Cooperative and many others. Newspaper articles regarding organic practices were published in conjunction with Earth Day. | Continue annual celebration. 2012 celebration scheduled for April 28, 2012 with a theme of "New England Animals". |
| Revised | | | | | |

2a. Additions

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3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|----------|--|--|--|---|---|
| 3a | Map Outfalls and Receiving Waters | Land Use Coordinator | Map 25% of outfalls that drain urbanized areas each year | Some progress. | Continue project. Use GPS unit to locate and map remaining outfalls. Contact local engineering firms for survey locations of stormwater structures to assist in mapping |
| Revised | | | | | |
| 3b | Review existing bylaws and regulations | Land Use Coordinator, Bylaw Review Committee | Determine if existing bylaws & regs fulfill EPA requirements | Complete. | |
| Revised | | | | | |
| 3c | Develop Illicit Discharge Detection & elimination plan | Land use Coordinator, Highway Department | Make recommendations for inclusion into proposed plan | No progress, personnel issues | Investigate cost of consultant completing plan or find other towns with similar plans. |
| Revised | | | | | |
| 3d | Develop/Modify General illicit Discharge bylaw | Land Use Coordinator, Highway Department | Propose recommendation for modifying/developing bylaw | Complete. | |
| Revised | | | | | |
| 3e | Present Bylaw for Town Meeting Action | Land Use Coordinator, Highway Department | Make Presentation for Town Meeting Action | Complete. | |
| Revised | | | | | |

3a. Additions

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4. Construction Site Stormwater Runoff Control

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|-----------------|---|--|---|--|---|
| 4a | Review Existing Site Inspection Practices | Land Use Coordinator, Conservation Commission, Building Dept | Review current practices and change if inadequate or include in new bylaw | New state stormwater regulations within the Wetlands Protection Act afford more oversight to stormwater controls than previously. | Finalize draft inspection forms as part of Stormwater Regulations under the Planning Board. |
| Revised | | | | | |
| 4b | Develop/Modify Site Inspection Program | Land Use Coordinator, Conservation Commission, Building Dept | Make recommendations for modifying existing program | Stormwater Rules & regulations which contain a section on inspections is in final draft form and is being reviewed by Town Counsel. Also contains inspection forms for municipality and permittee. | Have Planning Board hold hearing to incorporate stormwater rules & regulations into the planning board regulations. |
| Revised | | | | | |
| 4c | Review Existing Bylaws and regulations | Land Use Coordinator | Determine if existing bylaws and regs fulfill EPA requirements | Completed in 2005. | |
| Revised | | | | | |
| 4d | Develop/Modify Bylaw for Construction Site Runoff | Land Use Coordinator, Stormwater Bylaw Committee | Propose recommendations for modifying/developing bylaw | Completed in 2007. | |
| Revised | | | | | |
| 4e | Present Bylaw for Town Meeting Action | Land Use Coordinator, Stormwater Bylaw Committee | Make Presentation for Town Meeting Action | Completed in 2007. | |
| Revised | | | | | |

4a. Additions

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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 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|---------------|---|-------------------------------|--|--|---|
| 5a Revised | Review Existing Site Inspection Practices | Highway Department | Determine if existing practices fulfill EPA requirements | complete | |
| 5b Revised | Develop/modify inspection & Maintenance Practices | Highway Department | Make recommendations for modifying existing practices | Stormwater Rules & regulations to support the Stormwater Bylaw contain a section on inspections and is in final draft form and is being reviewed by Town Counsel. Also contains inspection forms for municipality and permittee. | Have Planning Board hold hearing to incorporate stormwater rules & regulations into the planning board regulations. Distribute new inspection forms to Building, Highway and Planning |
| 5c Revised | Review Existing Bylaws and Regulations | Land Use Coordinator | Determine if existing bylaws and regs fulfill EPA requirements | Planning Board rules & regulations revisions in draft form to prevent conflict with new Stormwater Bylaws and comply with EPA requirements. | Have Planning Board hold hearing to incorporate stormwater rules & regulations into the planning board regulations |
| 5d Revised | Develop/modify Bylaws for Post Construction Site Runoff | Land Use Coordinator | Propose recommendations for modifying/developing bylaw | Completed in 2007 | |
| 5e Revised | Present Bylaw for Town Meeting Action | Land Use Coordinator | Make presentations for Town Meeting Action | Completed in 2007. | |

5a. Additions

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6. Pollution Prevention and Good Housekeeping in Municipal Operations

| BMP ID # | BMP Description | Responsible Dept./Person Name | Measurable Goal(s) | Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|---------------|---|-------------------------------|--|---|--|
| 6a Revised | Street Sweeping Program | Highway Department | Sweep all streets once per year | Completed | Continue Annually |
| 6b Revised | Catch Basin Cleaning Program | Highway Department | Clean catch basins once very two years | Cleaned annually. 78 basins cleaned for this reporting period. | Continue annually as budget allows. Investigate purchasing new clamshell unit as current equipment is over 30 years old. |
| 6c Revised | Perform site visits to examine existing practices | Land Use Coordinator | Target all applicable municipal facilities | Complete. | Monitor for any changes |
| 6d Revised | Train municipal employees at each town facility | Land Use Coordinator | Target all applicable municipal facilities | Complete | |
| 6e Revised | Perform follow-ups to ensure required practices are met | Land Use Coordinator | Target all municipal facilities | Ongoing | |
| Revised | | | | | |

6a. Additions

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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 9 (Reliance on non-municipal partners indicated, if any) | Planned Activities – |
|-----------------|------------------------|--------------------------------------|---------------------------|--|-----------------------------|
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |
| Revised | | | | | |

7a. Additions

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7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

During Permit Year 9, the Town is still struggling with financial shortfalls and has not yet completed mapping the outfalls in the entire Town. Most of the Regulated Area falls within the States Highway Department control of Route 119 and a map of these outfalls has been obtained from the State Highway Department. Information was also obtained from the Building Department, Highway Department, Conservation Commission, Friends of Willard Brook, Nashua River Watershed Association, Townsend Recycling Committee, and the Devens Regional Household Hazardous Products Collection Center.

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, 2011 through March 31, 2012)

Programmatic

| | (Preferred Units) | Response |
|---|-------------------|--|
| Stormwater management position created/staffed | (y/n) | no |
| Annual program budget/expenditures ** | (\$) | 0.00 |
| Total program expenditures since beginning of permit coverage | (\$) | 0.00 |
| Funding mechanism(s) (General Fund, Enterprise, Utility, etc) | | General Fund from new permit fees. None collected as of this report. |

Education, Involvement, and Training

| | | |
|--|--------------|------------------------|
| Estimated number of property owners reached by education program(s) | (# or %) | 80-100% |
| Stormwater management committee established | (y/n) | yes |
| Stream teams established or supported | (# or y/n) | yes |
| Shoreline clean-up participation or quantity of shoreline miles cleaned ** | (y/n or mi.) | yes |
| Shoreline cleaned since beginning of permit coverage | (mi.) | |
| Household Hazardous Waste Collection Days | | |
| ▪ days sponsored ** | (#) | 20 HHW 12 Waste Oil |
| ▪ community participation ** | (# or %) | 20 res. HHW |

| | | |
|------------------------------|---------------|--|
| ▪ material collected ** | (tons or gal) | 1.98 tons HHW 709 gal waste oil |
| School curricula implemented | (y/n) | |

Legal/Regulatory

| | In Place Prior to Phase II | Reviewing Existing Authorities | Drafted | Draft in Review | Adopted |
|--|----------------------------------|--------------------------------------|---------|-----------------------|---------|
| Regulatory Mechanism Status (indicate with “X”) | | | | | |
| ▪ Illicit Discharge Detection & Elimination | | | | | X |
| ▪ Erosion & Sediment Control | | | | | X |
| ▪ Post-Development Stormwater Management | | | | | X |
| Accompanying Regulation Status (indicate with “X”) | | | | | |
| ▪ Illicit Discharge Detection & Elimination | | | | X | |
| ▪ Erosion & Sediment Control | | | | X | |
| ▪ Post-Development Stormwater Management | | | | X | |

Mapping and Illicit Discharges

| | (Preferred Units) | Response |
|--|-------------------|----------|
| Outfall mapping complete | (%) | 25 |
| Estimated or actual number of outfalls | (#) | 35 |
| System-Wide mapping complete (complete storm sewer infrastructure) | (%) | 25 |
| Mapping method(s) | | |
| ▪ Paper/Mylar | (%) | 75 |
| ▪ CADD | (%) | |
| ▪ GIS | (%) | 25 |
| Outfalls inspected/screened ** | (# or %) | 2 |
| Outfalls inspected/screened (Since beginning of permit coverage) | (# or %) | 20 |
| Illicit discharges identified ** | (#) | 0 |
| Illicit discharges identified (Since beginning of permit coverage) | (#) | 0 |

| | | |
|--|------------------------|-----|
| Illicit connections removed ** | (#); and (est. gpd) | |
| Illicit connections removed (Since beginning of permit coverage) | (#); and (est. gpd) | |
| % of population on sewer | (%) | 0 |
| % of population on septic systems | (%) | 100 |

Construction

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

Post-Development Stormwater Management

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

Operations and Maintenance

| | | |
|--|-------------------|---------|
| Average frequency of catch basin cleaning (non-commercial/non-arterial streets) ** | (times/yr) | 1 |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) ** | (times/yr) | |
| Qty of structures cleaned ** | (#) | 78 |
| Qty. of storm drain cleaned ** | (%, LF or mi.) | |
| Qty. of screenings/debris removed from storm sewer infrastructure ** | (lbs. or tons) | ~2 tons |
| Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) ** | (location) | compost |

| | | |
|--|-------------------------|----------|
| Basin Cleaning Costs | | |
| • Annual budget/expenditure (labor & equipment)** | (\$) | \$4,000 |
| • Hourly or per basin contract rate ** | (\$/hr or \$ per basin) | |
| • Disposal cost** | (\$) | |
| Cleaning Equipment | | |
| • Clam shell truck(s) owned/leased | (#) | 1 owned |
| • Vacuum truck(s) owned/leased | (#) | |
| • Vacuum trucks specified in contracts | (y/n) | |
| • % Structures cleaned with clam shells ** | (%) | 100 |
| • % Structures cleaned with vactor ** | (%) | |
| | (Preferred Units) | Response |
| Average frequency of street sweeping (non-commercial/non-arterial streets) ** | (times/yr) | 1 |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr) | |
| Qty. of sand/debris collected by sweeping ** | (lbs. or tons) | ~690 yds |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) ** | (location) | compost |
| Annual Sweeping Costs | | |
| • Annual budget/expenditure (labor & equipment)** | (\$) | \$22,000 |
| • Hourly or lane mile contract rate ** | (\$/hr. or ln mi.) | |
| • Disposal cost** | (\$) | |
| Sweeping Equipment | | |
| • Rotary brush street sweepers owned/leased | (#) | 1 owned |
| • Vacuum street sweepers owned/leased | (#) | |
| • Vacuum street sweepers specified in contracts | (y/n) | |
| • % Roads swept with rotary brush sweepers ** | % | 100 |
| • % Roads swept with vacuum sweepers ** | % | |
| Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination) | | |
| ▪ Fertilizers | (lbs. or %) | |
| ▪ Herbicides | (lbs. or %) | |

| | | |
|--|-------------|---|
| ▪ Pesticides | (lbs. or %) | |
| Integrated Pest Management (IPM) Practices Implemented | (y/n) | y |
| | | |

| | (Preferred Units) | Response |
|--|---|-----------------------------------|
| Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas) | % NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand | 25 0 0 0 0 0 75 |
| Pre-wetting techniques utilized ** | (y/n or %) | no |
| Manual control spreaders used ** | (y/n or %) | yes |
| Zero-velocity spreaders used ** | (y/n or %) | no |
| Estimated net reduction or increase in typical year salt/chemical application rate | (±lbs/l _n mi. or %) | -12% |
| Estimated net reduction or increase in typical year sand application rate ** | (±lbs/l _n mi. or %) | -1% |
| % of salt/chemical pile(s) covered in storage shed(s) | (%) | 100 |
| 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) | yes |
| | | |
| | | |

Water Supply Protection

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