

Municipality/Organization: Worcester State University

EPA NPDES Permit Number: MAR042022

MassDEP Transmittal Number: W-040406

Annual Report Number Year 12

& Reporting Period: April 1, 2014 – March 31, 2015

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

**Part I. General Information**

Contact Person: Robert Daniels

Title:

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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:

Kathleen M. Eichelroth

Printed Name: Kathleen M. Eichelroth

Title: V.P.-Administration and Finance

Date:

4/17/2015

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

Worcester State University (WSU) has completed a Self Assessment of the Storm Water Management Plan. WSU will update the SWMP in April 2015, provided updated training in January 2015 and continues to meet the requirements of the permit.

### Part III. Summary of Minimum Control Measures

#### 1. Public Education and Outreach

| BMP ID #        | BMP Description                       | Responsible Dept./Person Name | Measurable Goal(s)                                                                                                                              | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 13                                                                                                      |
|-----------------|---------------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 100.1<br>(2005) | Distribution of Educational Materials | Robert Daniels                | Design a SW Management information page on campus web-site that will be accessible by all students, faculty, administrators and general public. | Kept web-page updated-on-going as required                                                     | Redesigning web-page. Add latest version SWMP link to the web-page and web-page design improvements                                      |
| Revised         |                                       |                               |                                                                                                                                                 |                                                                                                |                                                                                                                                          |
| 100.2<br>2006   | Distribution of Educational Materials | Robert Daniels                | Designed a pamphlet for contractors to explain the expectations WSU has for contractors working on-site                                         | Continued to distribute pamphlet to contractors.                                               | Continue to distribute pamphlet to contractors, will update as necessary to reflect with new MS4 permit information when it's finalized. |

##### 1a. Additions

|               |                                       |                |                                                                                                         |                                                           |           |
|---------------|---------------------------------------|----------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------|
| 100.3<br>2007 | Distribution of Educational Materials | Robert Daniels | Download EPA's "After the Storm" pamphlet.                                                              | Pamphlet reoriented on the web-site.                      | No change |
| 100.4<br>2008 | Distribution of Educational Materials | Robert Daniels | "Focus the Nation" Presentation-nationally recognized teaching program-January 2008                     | Included SW as topic in WSU's annual sustainability fair. | No change |
| 100.5<br>2009 | Distribution of Educational Materials | Robert Daniels | "National Teach-In on Global Warming" Presentation-nationally recognized teaching program-February 2009 | Included SW as topic in WSU's annual sustainability fair. | No change |

|                        |                                          |                |                                                                                                               |                                                              |           |
|------------------------|------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------|
| 100.6<br>2011          | Distribution of<br>Educational Materials | Robert Daniels | Sustainability Fair –<br>Planned for Fall 2011<br>organized by WSU<br>Student Affairs and<br>Career Services  | Included SW as topic in WSU's annual<br>sustainability fair. | No change |
| 100.7<br>2012-<br>2015 | Distribution of<br>Educational Materials | Robert Daniels | Annual Sustainability<br>Fair –Planned for Fall<br>organized by WSU<br>Student Affairs and<br>Career Services | Included SW as topic in WSU's annual<br>sustainability fair. | No change |

## 2. Public Involvement and Participation

| BMP ID #           | BMP Description           | Responsible Dept./Person Name            | Measurable Goal(s)                   | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any)                        | Planned Activities – Permit Year 13                                                                                                                                                                              |
|--------------------|---------------------------|------------------------------------------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 200                | Storm Drain Stenciling    | Robert Daniels                           | Re-stencil drains annually as needed | Re-stenciled drains by August 2014, included new storm drains near Admin Building,. Also paint drains after cleanouts | Will re-stencil drains where necessary by Fall 2015                                                                                                                                                              |
| Revised            |                           |                                          |                                      |                                                                                                                       |                                                                                                                                                                                                                  |
| 200.1              | Campus Clean-up Day       | Steve Bandarra                           | Annually in April-May                | Biology and Facilities Departments cleaned campus on or around Earth Day 2014                                         | Faculty, Student Government Association, Regional Environmental Council plan to clean neighborhood on or around Earth Day 2015. WSU EHS Department will also include electronics collection and paper shredding. |
| Revised            |                           |                                          |                                      |                                                                                                                       |                                                                                                                                                                                                                  |
| Revised 200.2 2006 | Lake Ellie Beautification | Peter Fenuccio/Robert Daniels            | Dredge Lake Ellie by summer of 2007  | Annually clean outlet pipe between Lake Ellie and Moore Brook, dispose of sediment                                    | On-going as needed                                                                                                                                                                                               |
| Revised            |                           |                                          |                                      |                                                                                                                       |                                                                                                                                                                                                                  |
| 200.3 2007         | Clean up of Moore Brook   | WSU Grounds Crew and work study students | Clean brook annually as needed       | Re-inspected and cleaned in Fall 2014                                                                                 | Re-inspect and clean by Fall 2015                                                                                                                                                                                |
| Revised            |                           |                                          |                                      |                                                                                                                       |                                                                                                                                                                                                                  |

### 2a. Additions

|            |                                  |                |                                   |                                                      |    |
|------------|----------------------------------|----------------|-----------------------------------|------------------------------------------------------|----|
| 200.4 2008 | "In Business for the Blackstone" | Robert Daniels | Become member of the organization | Decided not to join "In Business for the Blackstone" | NA |
|------------|----------------------------------|----------------|-----------------------------------|------------------------------------------------------|----|

|               |                                                                |                                         |                                                                |                                                                                                                                                         |                                                                                                                                       |
|---------------|----------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 200.5<br>2012 | Formed Neighborhood Advisory Council (NAC)                     | President's Office and Public Relations | Public involvement and information sharing                     | Formed Neighborhood Advisory Council to share information with local community (Civic Engagement Group), get involved in community and campus clean ups | On-going                                                                                                                              |
| 200.6<br>2012 | American College and University President's Climate Commitment | Steve Bandarra                          | Submitted Climate Action Plan                                  | The Climate Action Plan referred to WSU's stormwater management plan                                                                                    | Will update as necessary                                                                                                              |
| 200.7<br>2012 | National Arbor Day Foundation Tree Campus USA Initiative       | Steve Bandarra                          | Join foundation                                                | Planted trees in October 2014                                                                                                                           | Committed and in the process of becoming members.                                                                                     |
| 200.8<br>2014 | Princeton Review Guide to Green Colleges                       | Steve Bandarra                          | Be listed as Green Campus                                      | Applied to get listed as Green Campus and was notified that WSU made the list                                                                           | Will be published as a Green Campus in Spring 2015                                                                                    |
| 2015          | Live Learn Cohort-EcoHouse                                     | Steve Bandarra                          | Students become more active in sustainability issues on campus | Students who want to live with common interest in sustainability and environmental issues                                                               | Group of students living together in Sheehan Hall-will be required to take sustainability seminar (e.g., solid waste, energy, toxics) |

### 3. Illicit Discharge Detection and Elimination

| BMP ID # | BMP Description         | Responsible Dept./Person Name | Measurable Goal(s)     | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 13                                         |
|----------|-------------------------|-------------------------------|------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 300.2    | Dry Weather Inspections | Robert Daniels                | Semiannual Inspections | Performed dry weather inspection in March 2014                                                 | On-going inspections- WSU will plan on spring and fall inspections in 2015. |
| Revised  |                         |                               |                        |                                                                                                |                                                                             |

#### 3a. Additions

|       |                                                     |              |                  |                                               |                                                                                                                                            |
|-------|-----------------------------------------------------|--------------|------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| 300.4 | New SW Site Plans-as part of Campus Utilities Plans | Sandra Olson | New SW Site Plan | Update BSI –Subsurface utility plans annually | On-going The BSI –Subsurface Utility Engineering plan will be updated to include any changes to the storm water system as the campus grows |
|-------|-----------------------------------------------------|--------------|------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|

### 4. Construction Site Storm Water Runoff Control

| BMP ID # | BMP Description                        | Responsible Dept./Person Name | Measurable Goal(s)                  | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any) | Planned Activities – Permit Year 13                     |
|----------|----------------------------------------|-------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 400.1    | Develop Construction Site Run Off Plan | Robert Daniels                | Update Construction Run-off Program | Construction Run-off Program reviewed in Fall 2014, no changes necessary.                      | Update as necessary as result of renewal of MS4 permit. |
| Revised  |                                        |                               |                                     |                                                                                                |                                                         |
| 400.2    | Construction Run-Off Plan Training     | Robert Daniels                | Implementation of periodic training | WSU provided training in January 2015                                                          | WSU will provide retraining in January 2016             |
| Revised  |                                        |                               |                                     |                                                                                                |                                                         |

|               |                                                                                                  |                                          |                                                   |                                        |                                                |
|---------------|--------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------|----------------------------------------|------------------------------------------------|
| 400.3<br>2006 | Develop an enforcement strategy when construction inspections and BMPs are not being implemented | Robert Daniels and Facilities Department | Document all Stop Work notices that are generated | There were no Stop Work orders issued. | If necessary, Stop Work orders will be issued. |
| Revised       |                                                                                                  |                                          |                                                   |                                        |                                                |

#### 4a. Additions

|               |                                                            |                |                                                                                  |                                                                                                                   |                                                                                                                         |
|---------------|------------------------------------------------------------|----------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 400.4<br>2007 | SW Review with Construction Site Personnel and MSCBA/DCAMM | Robert Daniels | Meet with construction company and MSCBA before and during construction projects | Continued to interact with construction companies and DCAMM/MSCB for utility relocation for construction project. | Will continue to interact with construction companies and DCAMM/MSCB for all DCAMM/MSCB future projects that affect SW. |
| 400.5<br>2007 | Construction Site Inspections                              | Robert Daniels | Periodic construction site inspections                                           | Weekly construction site inspections                                                                              | Construction site inspections will be conducted for any new future projects that will impact SW                         |



## 5. Post-Construction Stormwater Management in New Development and Redevelopment

| BMP ID #      | BMP Description                                                                                       | Responsible Dept./Person Name | Measurable Goal(s)                        | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any)                        | Planned Activities – Permit Year 13                                                 |
|---------------|-------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 500           | Develop a Post Construction Storm Water Management Plan as an appendix to Storm Water Management Plan | Robert Daniels                | Update Post Construction SWM Plan         | Updated SWMP in Fall of 2013                                                                                          | Will update SWMP as necessary in Spring 2015                                        |
| Revised       |                                                                                                       |                               |                                           |                                                                                                                       |                                                                                     |
| 500.1         | Implement training for Post Construction SWM                                                          | Robert Daniels                | Implementation of periodic training       | WSU provided retraining in January 2015<br>-----                                                                      | WSU will provide retraining in January 2016-----                                    |
| Revised       |                                                                                                       |                               |                                           |                                                                                                                       |                                                                                     |
| 500.2<br>2006 | Research alternatives to sand/road salt for road and walkway deicing.                                 | Robert Daniels                | Get prices and do a cost benefit analysis | Discontinued of Sand/ Salt and Magic salt use in Winter 2013-2014 used environmentally friendly salt product instead. | Will continue the use of environmentally friendly salt product in Winter 2015-2016. |
| Revised       |                                                                                                       |                               |                                           |                                                                                                                       |                                                                                     |

### 5a. Additions

|               |                                                         |                       |                                            |                                                                                                                                                          |                                                                                          |
|---------------|---------------------------------------------------------|-----------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 500.3<br>2007 | Catch basin clean out                                   | Robert Daniels        | Clean catch basins                         | Cleaned out catch basins at base of construction project in summer of 2014 Vortechnic Units were inspected and those accessible were cleaned out in 2014 | Will clean out catch basins and Vortechnic units by summer 2015.                         |
| 500.4<br>2007 | Soil stabilization for Parking Garage construction site | Consigli Construction | Stabilized soil in project area            | Completed                                                                                                                                                | Completed                                                                                |
| 500.5<br>2013 | Upgraded Sand/Salt Shed                                 | Robert Daniels        | Improved shelter to result in less run-off | Completed the upgrade in November 2013                                                                                                                   | Maintain the structure –ongoing, also cover pile with tarp because consists only of salt |

## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

| BMP ID #      | BMP Description                                   | Responsible Dept./Person Name | Measurable Goal(s)                  | Progress on Goal(s) – Permit Year 12<br>(Reliance on non-municipal partners indicated, if any)                             | Planned Activities – Permit Year 13              |
|---------------|---------------------------------------------------|-------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 600<br>2007   | Develop a training program for Facility Personnel | Robert Daniels                | Implementation of periodic training | WSU provided retraining in January 2015                                                                                    | WSU will provide retraining in January 2016----- |
| Revised       |                                                   |                               |                                     |                                                                                                                            |                                                  |
| 600.1<br>2009 | Snow Management                                   | Robert Daniels                | Less snow melt into Lake Ellie      | WSU continues to work at improving snow removal management by relocating to less environmentally sensitive areas on campus | Continue the best management practices.          |
| Revised       |                                                   |                               |                                     |                                                                                                                            |                                                  |

### 6a. Additions

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

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

| <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 12<br/>(Reliance on non-municipal partners indicated, if any)</b> | <b>Planned Activities – Permit Year 13</b> |
|-----------------|------------------------|--------------------------------------|---------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------|
|                 | NA                     |                                      |                           | NA                                                                                                     | NA                                         |
| Revised         |                        |                                      |                           |                                                                                                        |                                            |

**7a. Additions**

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

**7b. WLA Assessment**

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

#### 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, 2014 through March 31, 2015)

##### Programmatic

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

##### Education, Involvement, and Training

|                                                                            |               |  |
|----------------------------------------------------------------------------|---------------|--|
| Estimated number of property owners reached by education program(s)        | (# or %)      |  |
| Stormwater management committee established                                | (y/n)         |  |
| Stream teams established or supported                                      | (# or y/n)    |  |
| Shoreline clean-up participation or quantity of shoreline miles cleaned ** | (y/n or mi.)  |  |
| 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)         |  |
|                                                                            |               |  |

##### Legal/Regulatory

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

### Mapping and Illicit Discharges

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

## 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)     |  |
| Average frequency of catch basin cleaning (commercial/arterial or other critical streets) ** | (times/yr)     |  |
| Qty of structures cleaned **                                                                 | (#)            |  |
| 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                | (#)                     |  |
| • Vacuum truck(s) owned/leased                    | (#)                     |  |
| • Vacuum trucks specified in contracts            | (y/n)                   |  |
| • % Structures cleaned with clam shells **        | (%)                     |  |
| • % Structures cleaned with vector **             | (%)                     |  |

|                                                                                         | (Preferred Units)  | Response |
|-----------------------------------------------------------------------------------------|--------------------|----------|
| Average frequency of street sweeping (non-commercial/non-arterial streets) **           | (times/yr)         |          |
| Average frequency of street sweeping (commercial/arterial or other critical streets) ** | (times/yr)         |          |
| Qty. of sand/debris collected by sweeping **                                            | (lbs. or tons)     |          |
| Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **                | (location)         |          |
| Annual Sweeping Costs                                                                   |                    |          |
| • Annual budget/expenditure (labor & equipment)**                                       | (\$)               |          |
| • Hourly or lane mile contract rate **                                                  | (\$/hr. or in mi.) |          |
| • Disposal cost**                                                                       | (\$)               |          |
| Sweeping Equipment                                                                      |                    |          |
| • Rotary brush street sweepers owned/leased                                             | (#)                |          |
| • Vacuum street sweepers owned/leased                                                   | (#)                |          |
| • Vacuum street sweepers specified in contracts                                         | (y/n)              |          |
| • % Roads swept with rotary brush sweepers **                                           | %                  |          |
| • % Roads swept with vacuum sweepers **                                                 | %                  |          |

|                                                                                                                                |             |  |
|--------------------------------------------------------------------------------------------------------------------------------|-------------|--|
| Reduction (since beginning of permit coverage) in application on public land of:<br>("N/A" = never used; "100%" = elimination) |             |  |
| ▪ Fertilizers                                                                                                                  | (lbs. or %) |  |

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

|                                                                                                                                                          | (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 %)                                                                                |          |
| 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/ln mi.<br>or %)                                                                     |          |
| Estimated net reduction or increase in typical year sand application rate **                                                                             | (±lbs/ln 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 |  |
| • Treatment units induce infiltration within 500-feet of a wellhead protection area               | # or y/n |  |