

2018 Stormwater Pollution Prevention Plan Annual Report

Ramsey County Municipal Separate Storm Sewer System Permit

June 1, 2019

Ramsey County Public Works

2018 Stormwater Pollution Prevention Program Annual Report

Minimum Control Measure 1: **PUBLIC EDUCATION AND OUTREACH**

1a-1: Distribute Educational Materials

i. Brochures, Newsletters, Posters, and Utility Bill Inserts related to Stormwater, Household Hazardous Waste Collection, Used Oil and Used oil recycling, Master Gardener, Yard Waste disposal, Construction Project updates, and Rain garden construction. Material distributed by Ramsey County Public Works, Ramsey County Public Health Dept., and Ramsey Conservation District = >1,251,812

ii. Other media

| Media Type | Number of Impressions* | | |
|---------------------------------|------------------------|--------------------|------------|
| | 2016 | 2017 | 2018 |
| Billboards (static and digital) | 54,000,000 | 54,000,000 | 44,087,230 |
| Bus Sides | 40,000,000 | 40,000,000 | 33,417,913 |
| Bus/Train Interiors | 7,500,000 | 7,500,000 | 6,383,686 |
| Bus Shelters | 7,500,000 | 7,500,000 | N/A |
| Online Banner & Mobile Ads | 20,320,000 | 20,320,000 | 3,686,694 |
| Cable Television | 1,700,000 | 1,700,000 | N/A |
| Public Radio/Television | 250,000 | 250,000 | N/A |
| Skyway Ads | 5,000,000 | 5,000,000 | 12,379,000 |
| Bars, Restaurants, & CHS Field | 900,000 | 900,000 | 5,352,000 |
| Total | 137,170,000 | 137,170,000 | |

*estimated number instances people see the ads

iii. Ramsey County Website Statistics

a) Ramsey County Stormwater Website hits:

| Page Title | 2013 hits | 2014 hits | 2015 hits | 2016 hits | 2017 hits | 2018 hits |
|---|-------------|-------------|-----------|-----------|-----------|-----------|
| Stormwater Main Page | 248 | 226 | 356 | 160 | 662 | 691 |
| Illicit Discharge | 128 | 68 | 60 | 77 | 70 | 128 |
| Report Illicit Discharge | N/A | N/A | N/A | N/A | 108 | 111 |
| RCPW Construction Page | 6,624 | 10,474 | 8,442 | 24,888 | 14,879 | 14,944 |
| RC Public Health Household Hazardous Waste Page | 26,735 | 37,187 | 39,749 | 12,834 | >10,000 | >10,000 |
| RC Public Health Yard Waste Page | 110,633 | 134,541 | 170,676 | 51,523 | >50,000 | >50,000 |
| RC Public Health – Source Separated Organic Waste | Not tracked | Not tracked | 9,638 | 4,558 | >4,000 | >4,000 |
| RC Public Health A to Z Waste Disposal Guide <i>*Only tracked for partial year due to system upgrade</i> | 22,757 | 79,216 | 201,213 | 20,695 | >20,000 | >20,000 |

b) Ramsey County Website Construction Page Update Subscribers (Updates often include environmental permit details and erosion control/stabilization updates)

| 2014 Subscribers | 2015 Subscribers | 2016 Subscribers | 2017 Subscribers | 2018 Subscribers |
|------------------|------------------|------------------|------------------|------------------|
| 3,797 | 7,224 | 17,655 | N/A | 17,282 |

c) Comments/Reports received on stormwater/IDDE website = 3

1b-1: Implement an Educational Program

i. Tamarack Nature Center - Water Quality Exhibits, Brochures & Educational Programs:

a. Annual visitors:

| 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--------|--------|--------|---------|---------|---------|---------|---------|
| 40,000 | 80,193 | 99,352 | 116,932 | 117,588 | 132,695 | 137,000 | 133,775 |

b. Water Quality Education & Interpretive Programs participants:

| 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|------|--------|--------|--------|-------|-------|--------------------|-------|
| 750 | 12,447 | 12,709 | 12,572 | 1,276 | 3,015 | 1,795 ¹ | 1,824 |

¹Participation numbers reduced due to a wetland drawdown

- ii. Master Gardener Program/Event Attendees: Master Gardeners interacted at County Yard Waste Site >3,000 residents
- iii. Public presentations about shorelines / rain gardens conducted by RCD:

| Year | # Presentations | Total Attendance |
|-------------------|-----------------|------------------|
| 2012 | 25 | 560 |
| 2013 | 6 | N/A |
| 2014 | 7 | 136 |
| 2015 | 6 | 240 |
| 2016 | Not Reported | 565 |
| 2017 | 5 | N/A |
| 2018 ¹ | 0 | 0 |

¹No presentations in 2018 due to agency transition

- iv. Shoreline vegetation & Rain garden projects by RCD:

| | 2014 | | | 2015 | | | 2016 | | | 2017 | | | 2018 | | | |
|--------------|----------|---------------|---------------------------|----------|---------------|---------------------------|----------|---------------|---------------------------|----------|---------------|---------------------------|----------|-----------------|---------------|---------------------------|
| | Consults | Installations | TP removed (est. lbs/yr.) | Consults | Installations | TP removed (est. lbs/yr.) | Consults | Installations | TP removed (est. lbs/yr.) | Consults | Installations | TP removed (est. lbs/yr.) | Consults | Project Designs | Installations | TP removed (est. lbs/yr.) |
| Rain Gardens | 264 | 37 | 11 | 254 | 23 | 11.5 | 263 | 60 | 11.5 | 263 | 60 | 20.0 | 375 | 132 | 57 | 29.56 |
| Shoreline | 61 | | | 24 | | | | | | | | | | | | |
| WCA/ DNR | 65 | | | 61 | | | 86 | | | 86 | | | 60 | | | |

- v. 633-EASY Hotline calls (*Detailed in MCM 3c-1.vi*)

| Year | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|------------|--------|--------|--------|--------|--------|---------|---------|
| Call Total | 18,355 | 16,736 | 15,976 | 15,788 | 24,156 | >20,000 | >20,000 |

1c-1: Education Program – Public Education and Outreach

i. Ramsey County Dept. of Health (Haz Waste, HHW, Chemical Safety, Yard Waste Mgmt)

| Activity/Training | Year | Sessions | Attendance |
|---------------------------|------|----------|------------|
| Hazardous Waste Generator | 2011 | 7 | 253 |
| | 2012 | 20 | 588 |
| | 2013 | 27 | 690 |
| | 2014 | 20 | 403 |
| | 2015 | 25 | 870 |
| | 2016 | 19 | 558 |
| | 2017 | 19 | 554 |
| | 2018 | 24 | 684 |

ii. Ramsey County Soil and Water Conservation Division

a. Conservation Forums (attendance per forum)

- i. Aquatic Invasive Species - AIS (39)
- ii. Severe Weather Preparation (47)
- iii. Healthy Soil, Plants, and People (44)
- iv. AIS Early Detection (13)

b. Rain Garden / Shoreline Projects:

| Activity | | Total |
|--------------------------------|--------------|-----------|
| Consults/Design Projects | Rain Gardens | 375 / 132 |
| | Shorelines | |
| Completed / Installed Projects | Rain Gardens | 57 |
| | Shorelines | |

iii. Ramsey County Public Works

- a. Provided financial and staff support for 2018 RWMWD Waterfest
- b. Hosted 2018 Utility Meeting

iv. Ramsey-Washington Watershed District Public Works Forum

- a. Hosted public education exhibits at 2018 RWMWD Waterfest

v. Rice Creek Watershed District Public Works Forum - No activity

1c-2: Education Program – Public Participation

- i. Annual SWPPP Public Meeting Attendance –*Covered in Section #2*
- ii. Visits to RCPW Storm water Website = 691

1c-3: Education Program – Illicit Discharge Detection and Elimination

- i. IDDE training presentation at annual Public Works Maintenance Dept. Spring Safety Meeting
- ii. Parks and Rec Staff receiving annual training in IDDE identification = 17
- iii. Household Hazardous Waste Collection Flyers = 868,560
- iv. Cities working w/ Ramsey County Public Health for City cleanup activities = not tracked in 2018
- v. IDDE Public Reports = 6

1c-4: Education Program – Construction Site Run-off Control

i. RCPW Pre-Construction Meetings in 2018

| Project | Attendance |
|---------------------------------|-------------------|
| 2018 Bituminous Overlay | 18 |
| 2018 Bridges | 13 |
| 2018 Crack Sealing | 10 |
| 2018 Guard Rail | 9 |
| 2018 Ped Ramps | 24 |
| Beam & Hazelwood | 15 |
| County F – Hamline to Lexington | 29 |
| Hwy 96 – Snelling to Hwy 61 | 23 |
| Warner Bridge | 13 |

ii. RCPW Active projects in 2018 requiring weekly meetings

| Project | # Meetings | Avg. Attendance |
|---------------------------------|-------------------|------------------------|
| 2018 Bituminous Overlay | 15 | 4-6 |
| 2018 Bridges | 10 | 4-6 |
| 2018 Guard Rail | 10 | 3-9 |
| County F – Hamline to Lexington | 18 | 6-14 |
| Hwy 96 – Snelling to Hwy 61 | 12 | 5-10 |
| Warner Bridge | 12 | 4-6 |

- iii. Public comment of Construction Project SWPPPs = 0
- iv. County staff attending Erosion Control Training = 18 people totaling 144 hours
- v. See item 1a-1-ii-b): Ramsey County Website - Construction Update Subscriptions
- vi. Total new permitted construction projects in 2018 = 3
Total active permitted construction projects = 5

1c-5: Education Program – Post-Construction Stormwater Management in New Development and Redevelopment

- i. Stormwater structure maintenance flyers: No new structure flyers distributed in 2018
- ii. 2018 New Stormwater Structures / BMPs = 3 (Detailed list under MCM 5a-1)
- iii. Public comments on new stormwater structures = 0

1c-6: Education Program – Pollution Prevention/Good Housekeeping for Municipal Operations

- i. Number of electronic comments received on Annual Report = # 0
- ii. Comments at annual meeting = # 0

1d-1: Coordination of Education Program

- i. Outside agency programs that Ramsey County participates in = 14
 - RWMWD Watershed Management Plan TAC,
 - Rice Creek Watershed District TAC,
 - Como Lake TMDL, MPCA Chloride TMDL TAC,
 - Turtle and White Bear Lake augmentation TAC,
 - USGS WBL/TCMA Surface/Groundwater Modeling TAC,
 - Salt Tolerant Roadside Grasses TAP,
 - North and East Metro GWMA Advisory Team,
 - RWMWD Water Fest,
 - Bald Eagle TMDL TAC,
 - Silver West Carp Removal/Lake Improvement TAC,
 - Ramsey County Aquatic Invasive Species TAC,
 - MN Bighead Carp TAC
 - MnDOT Infiltration BMP Design TAC
 - Road Salt Symposium
- ii. Public Works Forum attendance numbers and seminar/workshop information posted under 1c-1

1e-1: Annual Public Meeting

Details contained in MCM-2

Minimum Control Measure 2: **PUBLIC PARTICIPATION/INVOLVEMENT**

2a-1: Comply with Public Notice Requirements

- i. St. Paul Pioneer Press: Notification posted on May 2, May 19, & June 1
- ii. Lillie Suburban Newspaper: May 16, May 23, & May 30
- iii. Ramsey County Website & Social Media: Posted on Ramsey County website on May 2, promoted on Ramsey County's Twitter Feed.

2b-1: Solicit Public Input and Opinion on the Adequacy of the SWPPP

#35 visits to the Ramsey County MS4 Booth at Phalen Park WaterFest on June 2
No official comments were made

2c-1: Consider Public Input

0 comments or changes to the SWPPP following public comments in 2017.

Minimum Control Measure 3: **ILLICIT DISCHARGE DETECTION AND ELIMINATION**

3a-1: Storm Sewer System Map

- i. GIS Mapping Updates to System in 2018:
 - a. Updated GPS coordinates on structures
 - b. Updated inspection records
 - c. Added new structures
 - d. Updated MS4 data from cities and merged all non-St Paul data into one file
 - e. Mapped reported illicit discharges from 2018

3b-1: Regulatory Control Program

i. Ramsey County Right-of Way Permit

| Year | Excavation/ROW Permits Issued | # of Inspections (est.) | Verbal Violation Notices | Revocation of Permits |
|------|-------------------------------|-------------------------|--------------------------|-----------------------|
| 2011 | 293 | ~300 | 15-20 | 0 |
| 2012 | 370 | ~400 | 20-30 | 0 |
| 2013 | 397 | ~450 | 10-20 | 0 |
| 2014 | 459 | ~500 | 12 | 0 |
| 2015 | 678 | 700+ | 5 | 0 |
| 2016 | 640 | 423 | 26 | 0 |
| 2017 | 701 | 654 | 36 | 0 |
| 2018 | 713 | 500 | 11 | 0 |

- ii. The County Right-of-Way Ordinance was revised to include more stringent erosion control provisions in 2009 and adopted by the Ramsey County Board on January 19, 2010. A copy of the ordinance is available at:

<https://www.ramseycounty.us/sites/default/files/Right%20of%20Way%20Ordinance.pdf>

3c-1: Illicit Discharge Detection and Elimination Plan

- i. Outfalls identified in the Ramsey County's MS4 = 2665
- ii. Outfalls inspected in 2018 = 727
- iii. Outfalls requiring removal of illicit discharges = 0
- iv. Outfalls requiring maintenance = N/A
- v. The Ramsey County Household Hazardous Waste Collection Program served to prevent illegal dumping by providing a location for the public to dispose of waste that may have otherwise made its way into Ramsey County's MS4.

2018 HHW Collection results:

- a. Total HHW sites (year-round, satellite, and stand-alone collections): 15
- b. Total HHW site operating hours & household participation:

| Year | Operating Hours | Total Households |
|-------------|------------------------|-------------------------|
| 2009 | 1,507 | 27,007 |
| 2010 | 1,777 | 26,716 |
| 2011 | 2,360 | 26,963 |
| 2012 | 1,871 | 25,540 |
| 2013 | 1,871 | 25,851 |
| 2014 | N/A | 27,264 |
| 2015 | 1,871 | 28,987 |
| 2016 | 1,920 | 27,902 |
| 2017 | 1,927 | 27,963 |
| 2018 | 1,974 | 28,642 |

- c. Pharmaceutical collection at the Ramsey County Sheriff's Patrol Station

| Year | Residents # | Amount Collected (lbs) |
|-------------|--------------------|-------------------------------|
| 2013 | 2,843 | 5,228 |
| 2014 | 3,538 | 5,987 |
| 2015 | 4,238 | 8,402 |
| 2016 | 4,951 | 9,394 |
| 2017 | 6,158 | 11,700 |
| 2018 | 5,337 | 10,140 |

d. Volumes by major category of HHW:
Permanent & Satellite HHW Facilities (2017- 2018 Totals include re-use)

| Waste Item | 2012 (lbs) | 2013 (lbs) | 2014 (lbs) | 2015 (lbs) | 2016 (lbs) | 2017 (lbs) | 2018 (lbs) |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Aerosols | 43,575 | 34,908 | 38,285 | 39,100 | 45,289 | 45,284 | 45,396 |
| Antifreeze | 27,635 | 23,080 | 19,625 | 21,360 | 21,594 | 26,225 | 30,508 |
| Batteries | Lead-acid | 41,880 | 36,392 | 41,880 | 30,174 | 43,740 | 46,911 |
| | Non-Rechargeable | 8,607 | 5,026 | 8,607 | 4,436 | 4,436 | 2,118 |
| | Rechargeable | 2,005 | 5,886 | 2,005 | 11,083 | 5,857 | 14,173 |
| Compressed gas cylinders | 26,548 | 26,593 | 24,384 | 15,164 | 27,741 | 32,750 | 17,180 |
| Corrosive (acids & bases) | 7,620 | 6,519 | 7,923 | 8,651 | 14,663 | 17,569 | 7,689 |
| Flammable solvents | 110,550 | 82,337 | 90,863 | 93,038 | 107,734 | 106,267 | 107,612 |
| Flammables (liquid & solid) | 43,180 | 36,942 | 44,897 | 49,020 | 83,089 | 99,555 | 102,896 |
| Fluorescent & HID lamps | 50,363 | 51,431 | 49,259 | 94,045 | 69,186 | 91,687 | 133,022 |
| Latex driveway sealer | 12,760 | 11,600 | 9,835 | 10,140 | 10,440 | 12,015 | 11,020 |
| Latex paint | 651,248 | 608,468 | 649,615 | 526,603 | 620,355 | 643,744 | 641,450 |
| Lead paint chips | 2,048 | 2,493 | 1,460 | 2,070 | 299 | 571 | 1,901 |
| Mercury | 125 | 34 | 232 | 307 | 409 | 651 | 421 |
| Oil paint | 222,274 | 199,306 | 228,881 | 170,214 | 185,047 | 167,265 | 159,551 |
| Other | 4,715 | 18,788 | 4,805 | 6,939 | 5,172 | 9,535 | 31,701 |
| Pesticides | 38,838 | 34,038 | 49,208 | 45,300 | 53,619 | 52,062 | 55,517 |
| Used motor oil | 162,237 | 144,881 | 135,232 | 133,525 | 130,138 | 136,271 | 136,593 |
| Used motor oil filters | 7,438 | 6,375 | 5,396 | 5,349 | 4,563 | 5,222 | 5,249 |
| Total HHW | 1,363,233 | 1,273,084 | 1,363,233 | 1,425,028 | 1,498,993 | 1,425,028 | 1,550,908 |

Ramsey County Public Works oil collection facility

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|--------|--------|--------|--------|--------|--------|--------|--------|
| Used Oil Volume (gallons) ¹ | 36,310 | 33,000 | 26,102 | 24,085 | 26,710 | 38,671 | 43,520 | 36,419 |
| Used Oil Filters (lbs.) | 21,225 | 28,500 | 23,500 | 17,125 | 19,870 | 19,250 | 19,175 | 18,750 |
| Antifreeze (gallons) | 690 | 1,725 | 1,565 | 1,480 | 845 | 1,865 | 1,200 | 1,390 |

¹Used oil volume total is combination of public collection and PW Vehicle Maintenance Dept

Compost/Yard Waste Collected

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|--|---------|----------|---------|---------|---------|---------|---------|---------|
| Volume Yard Waste / Brush (yd ³) | 307,173 | 148,811* | 283,984 | 295,646 | 281,532 | 270,431 | 267,927 | 243,219 |
| Total Operating Hours/Site | 1,390 | 1,354 | 1,230 | -- | 1,508 | 1,495 | >1,428 | >1,428 |
| Volume Compost Produced (yd ³) | -- | 3,690 | 4,106 | 5,509 | 5,414 | 3,700 | 4,400 | 3,950 |
| Source Separated Organics Participation | -- | -- | -- | -- | 45,636 | 51,813 | 59,114 | 70,333 |
| Source Separated Organics Collected (lbs) | -- | -- | -- | -- | 474,910 | 609,590 | 724,588 | 697,000 |

*Leaves/Grass data only. Brush was not included in the final volume

- vi. Ramsey County Department of Public Health operates a solid waste disposal hotline providing advice on all aspects of waste disposal.

2018 Call Results:

| Topic | 2012 Calls | 2013 Calls | 2014 Calls | 2015 Calls | 2016 Calls | 2017 Calls | 2018 Calls |
|----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|
| Recycling | 2,461 | 1,786 | 1,461 | 1,895 | 1,816 | 6,566 | 7,004 |
| Appliances | 466 | 401 | 266 | 485 | 665 | | |
| City Clean Up | 190 | 173 | 219 | 125 | 177 | | |
| Compact Fluorescent Bulbs | | | | 122 | 193 | | |
| Food Waste/Organics | 19 | 7 | 65 | 180 | 292 | 322 | 334 |
| Electronic waste | 737 | 472 | 397 | 588 | 1,036 | | |
| Medicine Collection | 370 | 444 | 451 | 526 | 462 | 339 | 204 |
| Solid Waste | 300 | 213 | 126 | 1,590 | 1,505 | | |
| Other waste | 94 | 59 | 0 | | | | |
| HHW | 3,615 | 3,493 | 3,257 | 3,604 | 4,358 | 3,065 | 2,295 |
| Compost Sites / Yard Waste | 8,509 | 6,726 | 5,261 | 5,255 | 6,787 | 5,294 | 3,620 |
| Other Topics | | 3,447 | 4,467 | 4,180 | 2,368 | 4,069 | 4,840 |
| Total Calls | 16,761 | 17,221 | 15,976 | 15,788 | 19,673 | 12,428 | >20,000 |

3d-1: Public and Employee Illicit Discharge Information Program
Details covered in 1c-3

3e-1: Identification of Non-Storm Water Discharges and Flows

- i. Non-storm water discharge reporting 18
 - a. Through the IDDE program = 5
 - b. Identified by County staff = 10
 - c. Notification from municipality = 3
- ii. Ramsey County shares or refers reported illicit discharges to local MS4s if they have jurisdiction
 - a. Notifications forwarded to cities = 4
 - b. Notifications received from cities = 3
 - c. Notifications forwarded to Watershed Districts = 4

Minimum Control Measure 4: **CONSTRUCTION SITE STORMWATER RUNOFF CONTROL**

4a-1: Ordinance or other Regulatory Mechanism

- i. Right-of-way permits issued (Excavation or Driveway) = 713
- ii. Percent of right-of-way permits requiring drainage evaluation and/or connection to Ramsey County's MS4: $515/713 = 72\%$

4b-1: Construction Site Implementation of Erosion and Sediment Control BMPs

- i. RCPW staff attending Erosion Control Training = 18 people totaling 144 hours
- ii. Permits obtained for Ramsey County Construction/Maintenance Projects:

| Project | NPDES | Watershed District |
|-------------------------------|-------|--------------------|
| County F Reconstruction | Y | RCWD |
| Lexington Ave Sediment Deltas | N | RCWD |
| Old Snelling N Delta | N | RCWD |
| Rice St @ I694 Reconstruction | Y | RWMWD |
| Lake Owasso County Park | Y | RWMWD |

4c-1: Waste Controls for Construction Site Operators

- i. Waste control is required for all Ramsey County construction projects under each individual project's SWPPP
- ii. Ramsey County Ordinance #2001-287 was amended in 2009 and adopted on January 19, 2010. It now includes waste control for right-of-way projects.

4d-1: Procedure for Site Plan Review

- i. Construction project plans prepared/reviewed = 4
- ii. Construction permits obtained: See 4b-1
- iii. Stormwater modeling projects completed/reviewed = 5
- iv. Applicable reviews for each project are required as part of the NPDES permitting process
- v. Impaired waters/stream reaches in Ramsey County in 2018 = 42 with 68 total impairments.
New waters listed in 2018: Zero
Waters delisted in 2018: 1 = Gem Lake (Aquatic Recreation)
TMDL implementation plans approved in 2018 = 0

See *Appendix A - Ramsey County 2018 Impaired-TMDL Waters List* for details

4e-1: Establishment of Procedures for the Receipt and Consideration of Reports of Stormwater Noncompliance

- i. The public may report illicit discharges using an email form on the Ramsey County website: <https://www.ramseycounty.us/residents/environment/stormwater-management/illicit-discharge/report-illicit-discharge>
The report is automatically forwarded to the Environmental Services Division
- ii. 2018 Complaints = 4

4f-1: Establishment of Procedures for Site Inspections and Enforcement

- i. Ramsey County Public Works: Total permitted construction sites = 15
 - a. Active Sites = 3
 - b. Site monitored for vegetation/completion & closed = 1
 - c. Total construction site inspections performed by RCPW staff & contractors in 2018 = 72
 - d. Ramsey County Parks active NPDES permitted sites = 5 (3 eligible for closure)
Total inspections = 7
 - e. Other Ramsey County facility permitted sites = 1
- ii. Ramsey County Soil and Water Conservation Division Performing Contracted Inspections on the behalf of municipalities:
 - a. Inspections performed = 946
 - b. Total inspections requiring corrective action = 241
- iii. Ramsey County Right-of -Way Permit Inspections
 - a. Total Permits = 713
 - b. Inspections = 500
 - c. Total inspections requiring correction = 11

4g-1: Erosion Control for Maintenance Activities

Maintenance project erosion control inspections = 129 inspections of 31 sites

Minimum Control Measure 5: **POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT**

5a-1: Development and Implementation of Structural and/or Non-structural BMPs

New Ramsey County Public Works Structural BMPs

| Project | BMP Description | Maintenance Responsibility |
|---------------------------------|--------------------------------|----------------------------|
| County F – Hamline to Lexington | Land O’Lakes Filtration Trench | RC Public Works |
| Lake Owasso County Park | Pervious Pavement Area 1 | RC Parks |
| | Pervious Pavement Area 2 | RC Parks |

5b-1: Regulatory Mechanism to Address Post Construction Runoff from New Development and Redevelopment

- i. Ramsey County Right-of-Way permits requiring review for post-construction BMPs = N/A

5c-1: Long-term Operation and Maintenance of BMPs

- i. Maintenance Operations by BMP type:
 - a. Ponds / Sediment Basins: 8

| Name | Maintenance Description |
|-------------------------------------|----------------------------|
| Tamarack Wetland Bank Site | Herbicide Treatment |
| Farm Pond Mitigation Wetland | Herbicide Treatment |
| Tamarack Mitigation Wetland | Buckthorn Removal |
| White Bear Township Mitigation Wtld | Herbicide Treatment |
| Woodview Marsh | Sediment Delta Removal |
| Dale @ Hwy 96 Pond | Vegetation Treatment |
| Silver Lake Rd @ Rice Creek Pond | Buckthorn Removal |
| Centerville Mitigation Wetland | Debris Removal from outlet |

- b. Pollution Control Structures/Infiltration BMPs: 19

| BMP Name | Maintenance Description |
|---|-------------------------|
| Bald Eagle Ave @ 10 th St IB | Supplemental Seeding |
| Bald Eagle Ave @ Soo Line IB | Herbicide Treatment |
| Beisswenger’s Pond Infiltration Bench | Herbicide Treatment |
| Coral Sea IB | Thistle Removal |
| Maryland @ Arkwright IB | Herbicide Treatment |
| Oxford @ County C Filtration Basin | Underdrain Adjustment |
| Park Ave IB | Supplemental Seeding |

| BMP Name | Maintenance Description |
|--------------------------------------|--|
| Ford Parkway Tree Trenches (3) | Underdrain Adjustment |
| Randolph Ave Tree Trenches (3) | Underdrain Adjustment |
| Centerville @ County F Sediment Sump | Access pad installation |
| County F Rain Gardens (5) | Inlet cleanouts / vegetation maintenance |

c. Infiltration BMP Vegetation Maintenance Performed by the MN Conservation Corps / RWMWD / Contractor

| Year | Agency | Amount |
|------|--------------------|-------------|
| 2012 | MCC | \$2,925.00 |
| 2013 | MCC | \$6,581.25 |
| 2014 | MCC | \$6,093.75 |
| 2015 | MCC | \$4,840.47 |
| 2016 | RWMWD | \$1,126.25 |
| 2017 | RWMWD | \$1,428.00 |
| 2018 | RWMWD / Contractor | \$10,073.00 |

ii. Maintenance Agreements for 2018:

| BMP | Agency |
|--|--------|
| Land O'Lakes Filtration Trench | RCWD |
| Lake Owasso Park Pervious Pavement Areas (2) | RWMWD |

Minimum Control Measure 6: POLLUTION PREVENTION/GOOD HOUSEKEEPING

6a-1: Municipal Operations and Maintenance Program

- i. Ramsey County staff trained in Spill Prevention = 85
- ii. Erosion Control Installers trained in 2018 = 4

6a-2: Road Surface Sanding, Salting, and Sweeping

- i. Ramsey County MS4 miles swept:
 - a. Ramsey County has 295 miles of roadway and 935 lane miles.
 - b. Two sweeping events = 1,870 total lane miles swept.
- ii. RCPW employees trained in salt application = 15

iii. Sections and miles of road targeted for additional sweeping

| Road Section | Lane Miles |
|--|-------------------|
| Como Ave – Raymond to Lexington | 4.06 |
| County E – Centerville to TH61 | 6.60 |
| County J – TH61 to Portland | 1.28 |
| Koehler Rd – Edgerton to Centerville | 0.88 |
| Lexington Pkwy – Randolph to University | 5.96 |
| Long Lake Rd – Cnty H to Airport Rd | 4.82 |
| McKnight Rd – TH5 to TH36 | 12.75 |
| Old Hwy 8- I694 to Cnty H | 8.05 |
| Prosperity Ave – Arlington to Larpenteur | 2.18 |

- iv. Sand applied in 2018 = 0 tons (Ramsey County is a salt-only applicator)
- v. Material recovered during sweeping events:

| Year | Amount Recovered (tons) |
|-------------|--------------------------------|
| 2010 | 1,443 |
| 2011 | 1,107 |
| 2012 | 406.5 |
| 2013 | 1,060 |
| 2014 | 1,384 |
| 2015 | 1,425 |
| 2016 | 1,185 |
| 2017 | 1,368 |
| 2018 | 1,286 |

vi. Ramsey County Salt Usage per Event

| Winter | Season Usage (Tons) | Lbs / lane mile per event | # of Events | Total Snowfall |
|-----------|---------------------|---------------------------|-------------|----------------|
| 2008-2009 | 7,370 | 821 | 27 | 45.0 |
| 2009-2010 | 4,775 | 718 | 20 | 40.7 |
| 2010-2011 | 6,000 | 703 | 24 | 86.6 |
| 2011-2012 | 3,505 | 536 | 14 | 23.0 |
| 2012-2013 | 8,656 | 561 | 33 | 71.0 |
| 2013-2014 | 10,491 | 607 | 37 | 67.7 |
| 2014-2015 | 6,209 | 428 | 31 | 32.0 |
| 2015-2016 | 2,867 | 321 | 18 | 30.1 |
| 2016-2017 | 4,697 | 419 | 24 | 32.0 |
| 2017-2018 | 13,683 | 770 | 38 | 77.4 |
| 2018-2019 | 5,899 | 422 | 30 | 68.8 |

6b-2: Annual Inspection of All Structural Pollution Control Devices

- i. Structural Pollution Control Device Inspections: 28/33 = 70%
- ii. Devices requiring maintenance: 8
- iii. New devices added: 0

6b-3: Inspection of a Minimum of 20 percent of the MS4 Outfalls, Sediment Basins and Ponds Each Year on a Rotating Basis

- i. Outfalls: 727/2665 = 27.3%
 Sediment Basins: 5/10 = 50%
 Ponds – 29/29 = 100%
- ii. Percentage targeted on a five-year basis
 Outfalls = 100.0%
 Ponds / Sediment Basins – 39/39 = 100%

6b-4: Annual Inspection of All Exposed Stockpile, Storage, and Material Handling Areas

- i. RCPW Garage Facility - 4 inspections
- ii. Kent St Storage Site - 4 inspections
- iii. TCAAP Stockpiles – 1 inspection (Site added late in year to inspection program)
- iv. NPDES Industrial Stormwater Permit was reissued in 2010. All Ramsey County Facilities were determined to be exempt or were certified as No-Exposure

6b-5: Inspection Follow-up Including the Determination of Whether Repair, Replacement, or Maintenance Measures are Necessary and the Implementation of the Corrective Measures

- i. Corrective actions determined based on inspection in 2018 = 128
- ii. Repairs not completed in 2018:

| Structure | Problem | Scheduled Completion of Repair |
|---|--|--|
| Arlington Filter Pond | Sediment dredging needed | Completed Jan 2019 |
| Bald Eagle Ave @ Soo Line IB | Entry swale is clogged with vegetation preventing directed water flow. Replace top 3 feet with millings swale. | Pending |
| Bald Eagle Blvd @ Cnty H2 Spillway | Run-off has eroded the road embankment. | Summer 2019 – Added to road mill & overlay project |
| Battle Creek Mitigation Wetland outlet culverts | Pipe separation has created a sinkhole in wetland outlet. | Pending (Parks and Rec) |
| Battle Creek Lower Pond | Sediment delta & damaged outlet culvert | Pending (Parks and Rec) |
| Battle Creek South Infiltration Basin | Underdrain is not functioning properly | Pending (City of Maplewood) |
| Battle Creek Yard Waste Site | Sediment basin has been filled in by sediment, banks have been breached | Summer 2019 |
| Cnty C east of Victoria | Culvert apron has separated from pipe. | Summer 2019 – Design plan being completed |
| Como Primary and Secondary Ponds | Sediment dredging is needed (Primary pond has Tier 2 Arsenic levels) | Pending – Could not be completed in winter due to weather conditions |
| Dale & Hwy 96 Pond | Southwest bank has heavy sinkhole damage (possibly from burrowing animals) | Summer 2019 |
| Eagle Ave @ County Ditch 11 | Culvert extension to prevent eroding of the roadside and for public safety. | Pending – may be added to RCWD Project |
| Lambros Ditch | Inlet structures are partly blocked by vegetation. Channel walls are slumping. | Pending |
| Larpenteur / Gottfried Pond | Northern outfall to pond has erosion & displaced riprap | Fall 2019 |
| Lexington @ RC Trail Mitigation Wetland | Outlet needs a trash rack installed to prevent clogging | Pending |
| Lexington Ave @ Spring Haven Ct outfall | Storm sewer outfall into wetland is mostly blocked by accumulated sediment. | Completed Spring 2019 |
| Lower Afton @ Londin Lane culvert inlet | Slope is degrading and filling inlet | Summer 2019 |
| Old Snelling Pond Inlet | Large sediment delta below outfall | Fall 2019 |
| Outfalls from MS4 at multiple (105) locations | Various needs including debris removal, culvert repair, etc. | Summer/Fall 2019 |
| Southshore Blvd Drainage | Multiple Locations with degrading culverts and structures | Pending - Work plan still in development |

| Structure | Problem | Scheduled Completion of Repair |
|----------------------------------|---|--------------------------------|
| Silverwood Ponds Sediment Deltas | Accumulated sediment beyond multiple culvert outfalls. One completed in January 2019. | Fall 2019 |
| Wakefield Inlet Sediment Delta | Accumulated sediment below outfall | Fall 2019 |
| Wheelock Filter Pond | Sediment dredging needed | Fall 2019 |
| Whitaker Pond Forebay | Sediment dredging needed | Fall 2019 |
| Woodview Marsh Outfall #4878h | Large sediment delta removal needed, minor erosion repairs | TBD |

6b-6: Record Reporting and Retention of all Inspections and Responses to the Inspections
 All required inspection reports are kept on file for required time durations

6b-7: Evaluation of Inspection Frequency

- i. County facilities under the NPDES Industrial Stormwater Permit were required to be inspected 5 times per year between April & October.
 - a. As of June 2010, these facilities are no longer required to have NPDES Permits.
 - b. Inspection schedule alterations:
 - Inspection frequency was reduced to quarterly inspections (4) beginning in 2014

6b-8: Lake Water Quality Monitoring

30 lakes are monitored 6-8 times per year for nutrients, suspended solids, clarity, chlorophyll, wet chemistry, pH, and beach E-coli testing (weekly in summer).
 See *Appendix B - Ramsey County 2018 Lake Water Quality Score* for details.