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City of Rochester

2018 Municipal Separate Storm Sewer System (MS4) Program Highlights and Annual Input Meeting

Presented by Troy Erickson, PE
Water Resources Manager

Council – Board Chambers
June 17, 2019



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MS₄ Permit Background

- The MS₄ permit is mandated by the Environmental Protection Agency (EPA) and administered by the Minnesota Pollution Control Agency (MPCA).
- The MS₄ permit establishes conditions for discharging stormwater and specific other related discharges to waters of the state for urbanized areas.
- Cities that own or operate MS₄s play a key role in preventing, reducing, or mitigating the negative impacts of stormwater runoff.



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Objectives

Objective 1: Highlight program activities for 2018 with respect to six MS₄ permit required areas of focus:

1. Public Outreach and Education
2. Public Participation/Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Stormwater Runoff Control
5. Post-Construction Stormwater Management
6. Pollution Prevention/Good Housekeeping for Municipal Operations

Objective 2: Fulfill MS₄ permit requirement by providing opportunity for public to provide comment on City's Storm Water Pollution Prevention Program (SWPPP)



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Public Education and Outreach

- Presentation Attendees and Activity Participants: 13,665
- Stormwater Related Events: 49
- Total Contacts: 11,201,500



Contractor Trainings



Street Sweeper Displays



"Stormwater Presents" Speaker Series



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Public Participation/Involvement

- Annual Meeting
- A Litter Bit Better!: 4,385 volunteers picked up over 15,000 pounds of litter at 307 sites
- Realize Rain Gardens Grant Program: 2 residential rain gardens were constructed
- Storm Drain Marking Program: 280 storm drains marked





Illicit Discharge Detection & Elimination

- 7 illicit discharges reported
- All illicit discharge reports are investigated, responsible party contacted, and enforcement actions taken, as necessary
- Illicit discharges included:
 - Wash water containing soap
 - Drilling fluid used for soil borings
 - Sanitary sewer overflow
 - Chemical spill
 - Concrete washout
- Most reported incidents do not enter storm sewer or conveyance
- All staff have been trained to identify and report illicit discharges



Soapy Wash Water in Zumbro River



Chemical Spill Downtown



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Construction Site Stormwater Runoff Control

1,192 residential erosion and sediment control (ESC) inspections

- 673 passed inspection
- 519 failed inspection
- 451 enforcement actions

679 ESC inspections of commercial sites, subdivisions, and City projects

- 135 active construction sites \geq one acre
- 488 passed inspection
- 191 failed inspection
- 20 enforcement actions

Education



Residential Subdivision ESC Inspection



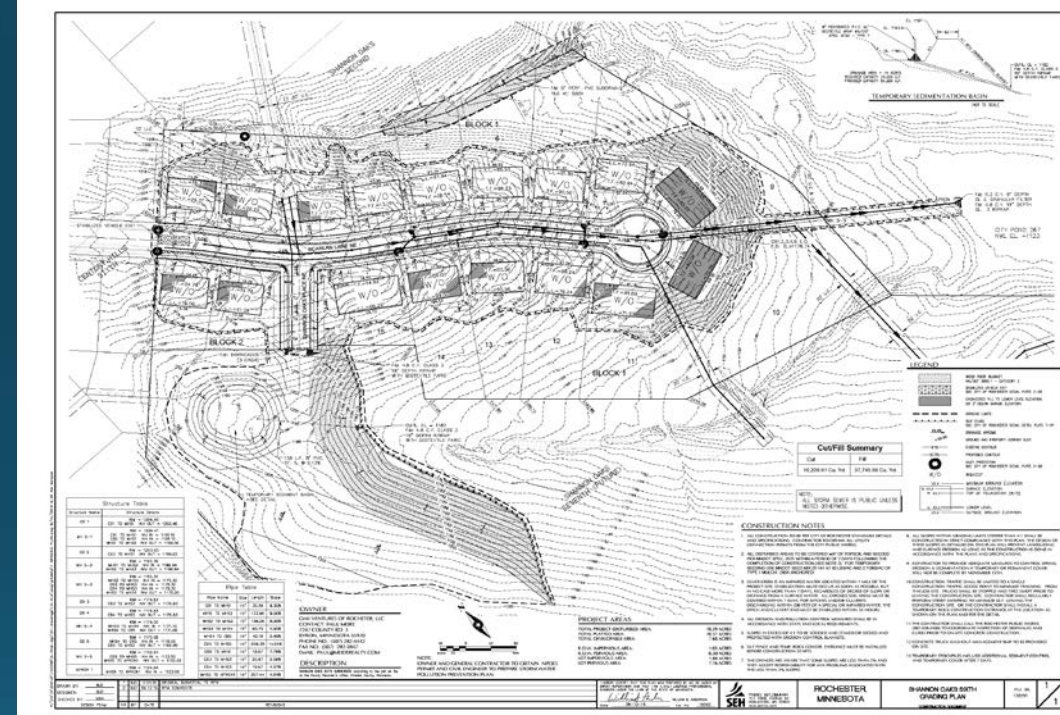
Multi-Family ESC Inspection





Post-Construction Stormwater Management

- Reviewed site development projects for compliance with City standards, policies, and ordinances
- Received 97 unique commercial and residential subdivision grading and stormwater management plans (SWMPs)
- Performed over 246 plan reviews
- Approved 65 grading and SWMPs
- Approved 30+ residential (single lot) grading plans



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Good Housekeeping for Municipal Operations

- Maintained inventory of all City-owned facilities
- Inspected all 60 City-owned structural best management practices (BMPs), i.e. infiltration basins, rain gardens, grit chambers, etc.
- Inspected 121 of 163 City-owned wet sedimentation basins
- Maintained stormwater treatment and conveyance systems including vegetation control, sediment control, outlet modifications, etc.
- Swept 8,030 lane miles of roadway throughout City
- Responded to hundreds of complaints, comments, and inquiries
- Staff training on IDD&E, ESC, and BMPs
- Achieved year over year reductions of total suspended solids and fecal coliform for Total Maximum Daily Load (TMDL) waste load allocations



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Changing regulatory environment related to the MS₄ Permit

- New MS₄ Phase II Permit will be released this summer for comment and issued later this fall
- Major changes related to the new permit include:
 - Lower threshold for required BMP implementation, i.e. smaller developments will require water quality BMPs
 - Education emphasis on salt application, i.e. chlorides, for businesses
 - Emphasis on measurable goals
- Rochester will be issued an MS₄ Phase I (individual) Permit in 2025 based on population that is similar to that of Minneapolis and St. Paul



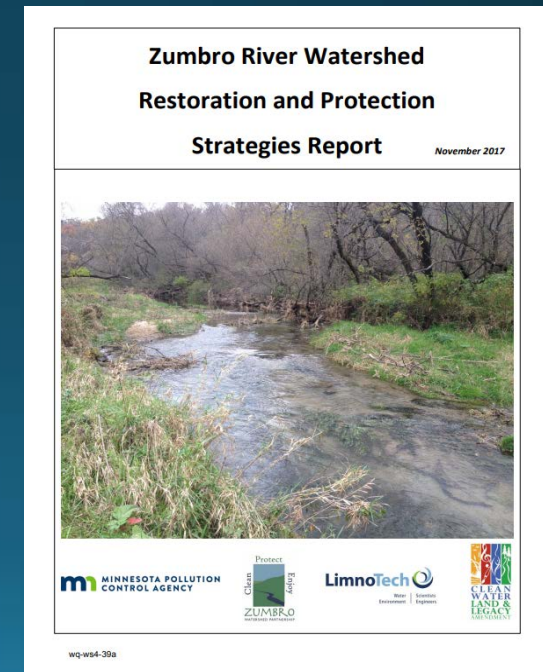
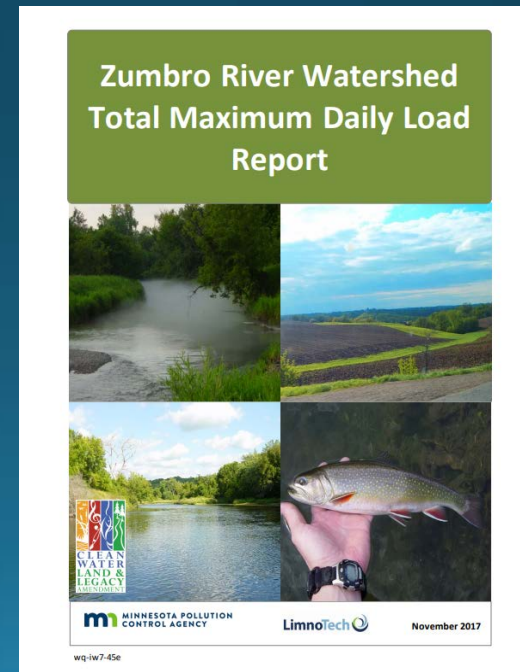
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- Comprehensive surface water management planning efforts emphasizing water quality – *One Watershed, One Plan (1W1P)*
- Approved 1W1P expected within two years – kickoff June 13, 2019
- Local planning efforts to begin in 2019
 - Downtown focus and City-wide
 - Water quality and conveyance
 - Ordinances



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Current and Future Initiatives

1. Planning/Policy Documents:
 - A. Stormwater Management Plans for Downtown and City-Wide
 - B. Water Quality Treatment and Pollutant Generation Assessment
2. Engineering Standards for Low-Impact Design and Green Infrastructure
3. Best Management Practice Assessment Procedure
4. Update Ordinances – Consolidation and Enforcement:
 - A. Post-Construction Stormwater Management
 - B. Erosion and Sediment Control
5. Update Stormwater Related Standards, Specifications and Checklists
6. Renew Municipal Separate Storm Sewer System Phase II Permit in 2019



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Current and Future Initiatives

Capital Improvement Projects:

1. Cascade Township Section 7 Flood Control/Stormwater Management Facilities for King's Run (Flood Control and Stormwater)
2. Spring Brook Valley Master Planning – Environmental Corridor (Stormwater and Sanitary)
3. 37th Street Infiltration Basin near Foster Arend Park (Stormwater)
4. 3rd Street Parking Ramp Stormwater Demonstration Project (Stormwater)
5. 7th Avenue SW, 13th Avenue SW and 10th Street SW Storm Sewer Improvements (Stormwater, Sanitary, Streets)





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Current and Future Initiatives

Continued development and implementation of software applications to efficiently inventory assets, track activities, and educate citizens using: (1) MS4Front, (2) ArcGIS Online (AGOL), and (3) ElementsXS

The image displays two overlapping software interfaces. The left interface is MS4Front, a web-based dashboard for the City of Rochester. It features a 'Dashboard Alerts' section with a table listing permits that need re-inspection. The right interface is ArcGIS Online, showing a map of a residential area with a green highlighted parcel (602) and a 'Site Details' pop-up window.

MS4Front Dashboard Alerts

Outfall Inspection Needed by Deadline
NWS Quantitative Precipitation Forecasts
C/P/C Enforcement Follow Ups

The following C5Ws will need to be re-inspected soon:

Permit Number	Issuance Date	Name	Last Inspection Date	Last Inspection Status	Inspection Count	Follow Up Type	Sc
R18-1437RB	2018-10-18	HART FARM SOUTH 8TH SUBD (2363 STARBURST DR SW)	5/30/19	Fail	1	Re-Inspection After Initial Warning	6/10
R18-1553RB	2018-11-29	HART FARM SOUTH 8TH SUBD (2371 STARBURST DR SW)	5/30/19	Fail	3	Re-Inspection After Initial Warning	6/10
R18-1412RB	2018-10-19	HART FARM SOUTH 8TH SUBD (2396 STARBURST DR SW)	5/30/19	Fail	1	Re-Inspection After Initial Warning	6/10
R18-1507RB	2018-11-08	FIELDSTONE 5TH SUBD (2447 FIELDSSTONE RD SW)	6/5/19	Fail	2	Re-Inspection After Verbal Warning	6/11
R18-1049RB	2018-08-10	FIELDSTONE 5TH SUBD (2487 FIELDSSTONE RD SW)	6/5/19	Fail	2	Re-Inspection After Verbal Warning	6/11

1 - 5 of 12 items | 5 | 10 | 20 | 50

ArcGIS Online: A Litter Bit Better!

City of Rochester RNeighbors: Rochester's Neighborhood Resource Center

Search by Address

Site Details:

- Site No. 602
- Adopted? No
- Quadrant SE
- Site Description Parkside and Oak Terrace Mobile Home Park - E of Marion RD SE
- Registration [More info](#)

Zoom to

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Teammate Recognition

- Stephanie Hatzenbihler – Environmental Education Specialist
- Aaron Cunningham – Inspector/Engineering Technician
- Mike Kraszewski – Stormwater Utility and Flood Control Project Specialist
- Ryan Thesing – Stormwater Utility and Flood Control Project Specialist
- Lindsey Bartolomei, PE – Water Resources/Grading Engineer
- Christy Shostal – GIS Coordinator



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Opportunity for Public Comments

This presentation, the SWPPP, and the Annual MS₄ Permit Report to the MPCA, along with other stormwater management information, is available online at: www.rochestermn.gov

Please direct all written questions/comments to:
Troy Erickson, PE - Water Resources Manager
(terickson@rochestermn.gov)

