

# Watershed Volume Reduction Rules: Ten Years Later

BCWMC TAC Meeting  
May 5, 2016

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Watershed District



# Presentation Outline

- Introduction to RWMWD
- History of Rules Process
- 2015 Rule Revisions
- Compliance with New Rules
- City of Maplewood Projects





## Leifnigton



# District Objectives & Process for New Rules

- Coordinate with CRWD and Joint TAC- establish commonality between shared entities
- Work with other local governments to improve water quality
- Provide for an effective and well run permitting program
- Reduce impact of runoff on our water resources





# Rules and Standards (Adopted 2006)

- Stormwater Management
  - Rate Control
  - Volume Control
  - Water Quality
  - Lifetime Maintenance Agreements
- Erosion and Sediment Control
- Wetland Management
- Flood Protection



# What was the Standard?

Developments must reduce runoff volumes in the amount equivalent to 0.9 inches from the impervious areas of the site.

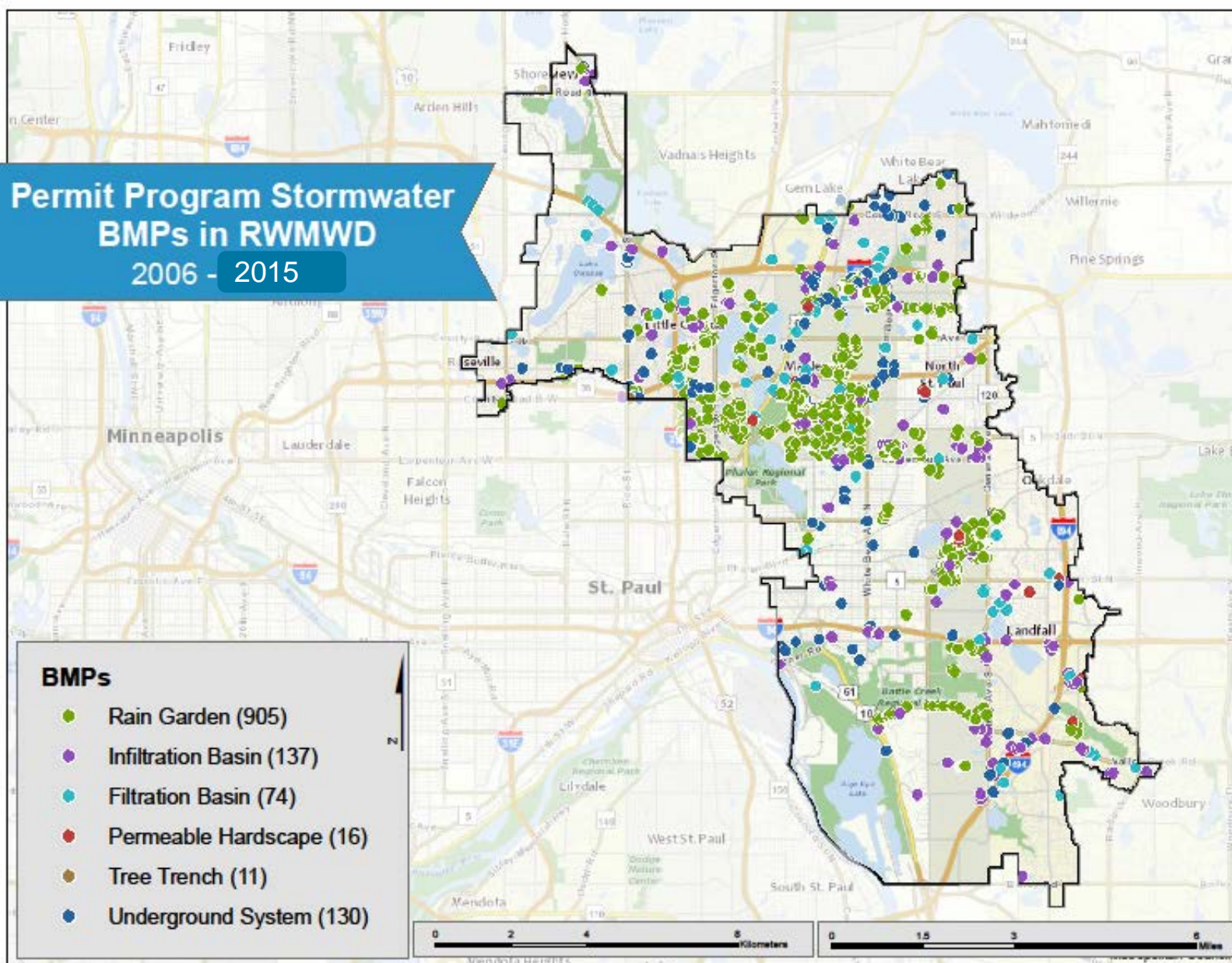
## Alternative Compliance Sequencing

- Partially Meet Onsite
- Offsite or Banked Credits
- Stormwater Impact Fee
- Cost Cap for Linear Projects





## Permit Program Stormwater BMPs in RWMWD 2006 - 2015



# 2014 TAC Discussions: Are the Rules Still Accurate?

- 0.9" standard- less than MIDS
- 70% Filtration Credit- is it enough or too much?





# April 2015 Rule Revisions

- Volume reduction standard increased to capture 1.1 inch of runoff from the impervious surfaces
- Volume reduction credit standard for filtration BMPs (55%) and enhanced filtration (80%) added to rules



Photo: Fred Rozumalski

Ramsey-Washington Metro



District

# TAC Concerns with Proposed Revisions

- Not fully adopting MIDS
  - Concern with linear projects not having a lower standard
- Added project cost for constructing larger filtration or IES systems



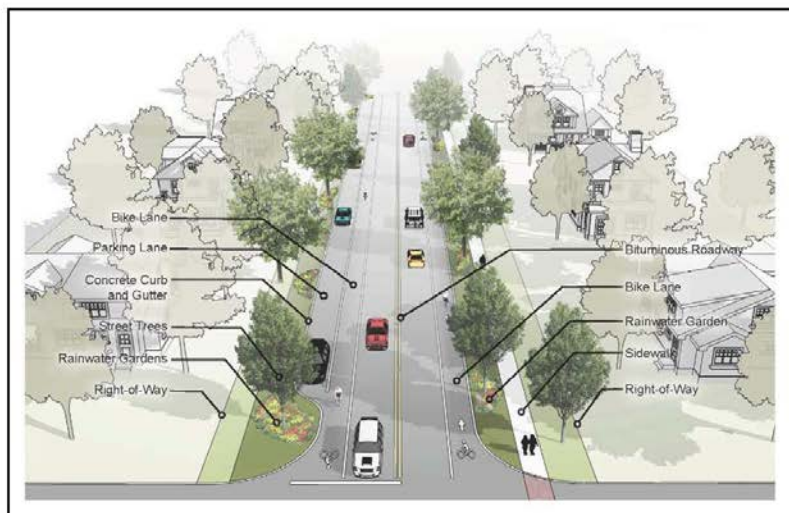
RWMWD Iron Enhanced Sand Filter, Maplewood



# Compliance Thus Far with 2015 Revisions

- 34 Stormwater Management Permits Approved
  - 7 linear projects
  - 4 applied cost cap- all provide 0.6-0.8" volume reduction onsite through filtration
  - 1 payment to stormwater impact fund
  - 1 used banked credits
  - 1 provided excess credits for future project





## City of Maplewood, Minnesota Living Streets Policy

By: Michael Thompson, P.E.  
Director of Public Works / City Engineer

Adopted by the City Council on January 28, 2013



City of Maplewood, MN  
Living Streets Policy  
**Complete + Green = Living!**

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# Maplewood Living Streets & Stormwater Treatment

BCWMC  
May 5, 2016



# Guiding Documents

- 2030 Comprehensive Plan
- Living Streets Policy
  - Compliments and builds upon the Comprehensive Plan
  - High level goals
    - Encourage people to travel by walking or bicycling
    - Enhance the safety and security of streets
    - Create livable neighborhoods
    - Maximize the infiltration of stormwater
    - Improve the quality of stormwater runoff
    - Enhance the urban forest
    - Improve the aesthetics of streets within the community
    - Reduce life cycle costs







# Girl Scout street safety

Luke Reiter "after reading through our exchange" ward



Leverage  
Local  
Partners and  
Supporters!!



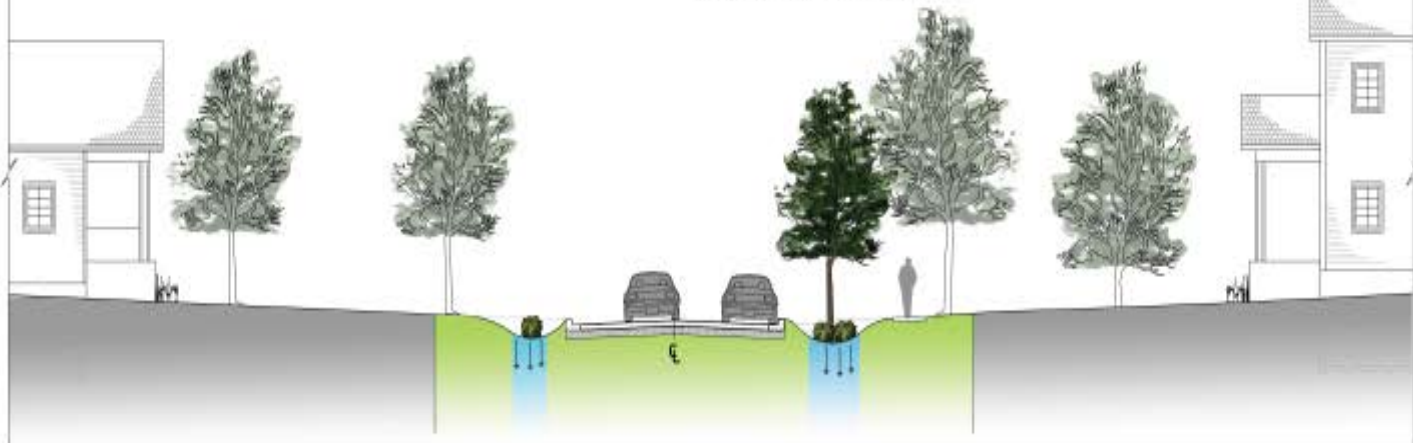




# Lessons Learned



Typical Proposed Cross Section  
City of Maplewood, MN



## Legend

- Existing Tree
- Existing Curb Face
- Proposed Boulevard Landscaping
- Proposed Tree







- City street  
sidewalk

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# Pavement Rehabilitation Projects

- General characteristics of a pavement rehabilitation project
  - Water mains and sanitary main in good condition
  - Concrete curb and gutter and storm sewer infrastructure in good condition
  - Pavement condition in bad shape
- Common rehabilitation methods
  - Mill and overlay
  - Full depth reclaim



# Current Street Conditions

## Lakewood-Sterling Area



Lakewood Drive



Mamie Avenue

- Full Depth Reclaim – No water quality requirements



# Current Street Conditions

## Beebe Road



Near Track Field



At Southwind Road

- Full depth reclaim – No water quality requirements
- New trail – Needs to meet water quality requirements
  - Utilize banked credits or pay into watershed fund



# Resident Rain Gardens

(Design 2011-Current)

- Simplified Design
- Fewer Species
- Larger Clumping





# Incentive programs

- Resident Rainwater garden – EUF credit of 30% per month





# Questions?

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