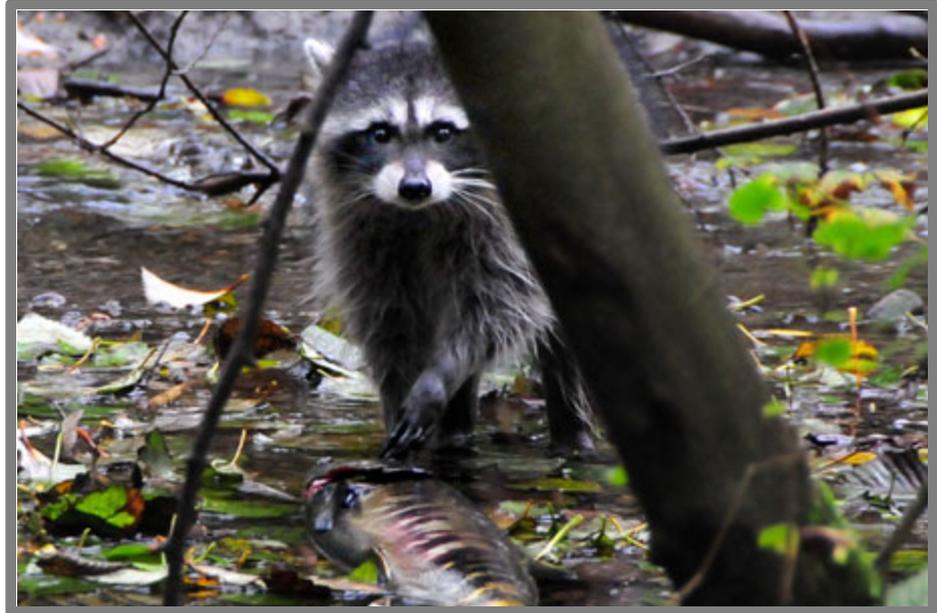


Protecting Seattle's Waterways



2016 Stormwater Code Update

Urban Forestry Commission

Wednesday, June 3, 2015

Seattle Municipal Tower

Presented by:

Sherell Ehlers, P.E.

Seattle
 Public
Utilities



Purpose

- Provide Background on Project
- Identify Major Changes
- Identify Next Steps



Background

- Why do we have a Stormwater Code?
 - Protect life, property, surface waters from harm
 - Meet requirements of state and federal law
 - Required under the federal Clean Water Act/NPDES permit
- What is in our current Stormwater Code?
 - Source control for on-going practices
 - Construction site pollution prevention
 - Green stormwater infrastructure to maximum extent feasible, flow control & water quality treatment for projects



Strategic Direction

- Achieve equivalency with Ecology Manual (2014) & 2013 – 2018 Stormwater NPDES Permit
- Revisit some thresholds
- Use the revision process as an opportunity to:
 - Address shortcomings
 - Streamline requirements
 - Reorganize Stormwater Manual based on feedback
 - Simplify and limit text in Stormwater Manual



Draft Major Code Revisions

- Overview of changes:
 - Exemptions
 - Vested Rights
 - Definitions
 - Prohibited and Permissible Discharges
 - Minimum Requirements for All Discharges and All Real Property
 - Minimum Requirements for Projects
 - On-site Stormwater Requirements



Draft Major Code Revisions

- Exemptions (Ch. 22.800)
 - Revised that stand-alone utility projects not subject to On-site Stormwater Management
 - Revised “Road maintenance practices” to “Pavement maintenance practices” (matches Ecology language)



Draft Major Code Revisions

- Transition to 2016 Stormwater Code - Vested Rights (Ch. 22.800)
 - Added new language regarding effective date of Stormwater Code
 - Effective date dependent upon start of construction
 - For projects with “complete applications” submitted under previous Stormwater Code, start of construction shall be prior to June 30, 2020, otherwise 2016 Stormwater Code applies
 - Affects building and master use permits (including short plats)



Draft Major Code Revisions

- Definitions – Deleted (Ch. 22.801)
 - ~~Agency with jurisdiction~~
 - ~~Basin plan~~
 - ~~Cause or contribute to a violation~~
 - ~~Flow-critical receiving water~~
 - ~~Joint project~~



Draft Major Code Revisions

■ Definitions – Revised (Ch. 22.801)

- *Capacity-constrained system*
- *Drainage system*
- *Geotechnical engineer*
- *Green stormwater infrastructure*
- ***Impervious surface***
- *Land disturbing activity*
- *Large project*
- *Nutrient-critical receiving water*
- *Parcel-based project*
- *Pollution-generating impervious surface*
- *Pollution-generating pervious surface*
- *Receiving water*
- ***Replace impervious surface***
- *Roadway project*
- *Sidewalk project*
- *Single-family residential project*
- *Site*
- *Stormwater*
- *Trail project*
- *Watercourse*



Draft Major Code Revisions

■ Definitions - New (Ch. 22.801)

- Aquatic life use
- Arterial
- Combined sewer basin
- Drainage basin plan
- Erodible or leachable materials
- Groundwater
- **Hard surface**
- Illicit Connection
- Industrial activities
- On-site BMPs
- Pollution-generating hard surface
- Private drainage system
- Project Site
- Replaced hard surface
- Small lakes



Draft Major Code Revisions

- Prohibited and Permissible Discharges (Ch. 22.802)
 - Discharges to public combined sewer shall meet Side Sewer Code (Ch. 21.16)
 - Revised Permissible Discharges – includes modifications and conditions
 - Dye testing - notice to SPU prior to test



Draft Major Code Revisions

- Minimum Requirements for All Discharges and All Real Property (Ch. 22.803)
 - Added requirement to map drainage/plumbing infrastructure
 - Added requirement for Site Maintenance
 - Revised Minimum Requirements for Source Control for specific discharge locations



Draft Major Code Revisions

- Minimum Requirements for All Projects (Ch. 22.805)
 - GSI to MEF is now “On-site Stormwater Management”
 - On-site Stormwater Management thresholds are based upon Project Type (e.g. Parcel-based, Roadway)
 - Amending soils is required based upon Project Type
 - Added requirement to protect stormwater BMPs during construction



Draft Major Code Revisions

- Minimum Requirements for Single-family Residential Projects (22.805.030)
 - Threshold for On-site Stormwater Management changed to 750 sf or 1,500 sf (formerly required for all SFR projects)
 - 750 sf threshold applies to projects platted January 1, 2016 or later
 - 1,500 sf credit for SFR no longer applicable



Draft Major Code Revisions

- Minimum Requirements for Parcel-based Projects (22.805.050)
 - Threshold for On-site Stormwater Management changed to 750 sf or 1,500 sf (formerly 2,000 sf for parcel-based projects)
 - 750 sf threshold applies to projects platted January 1, 2016 or later
 - Added flow control requirement for projects permanently discharging groundwater
 - Treatment applies to both pollution-generating hard and pervious surfaces



Draft Major Code Revisions

- Minimum Requirements for Roadway Projects (22.805.060)
 - Added flow control requirement for projects permanently discharging groundwater
 - Treatment applies to both pollution-generating hard and pervious surfaces
 - Added infeasibility criteria for Roadway Projects pertaining to:
 - Existing Infrastructure & Utility Limitations
 - Hydraulic limitations



Draft Major Code Revisions

- Minimum Requirement Standards:
On-site Stormwater Management
 - Choose either:
 1. On-Site List (by project type), or
 2. On-Site Performance Standard

On-site List for Single-family Residential Projects

Category	GSI BMPs	All Basins
1	Full Dispersion	R, S
	Infiltration trenches	R, S
	Dry wells	R, S
2	Rain Gardens ^a	R, S ^a
	Infiltrating Bioretention	R, S
	Rainwater Harvesting	X
	Permeable Pavement Facilities	R, S
	Permeable Pavement Surfaces	S
3	Sheet flow Dispersion	S
	Concentrated Dispersion	S
	Splashblock Downspout Dispersion	R
	Trench Downspout Dispersion	R
	Non-infiltrating Bioretention	R, S
	Vegetated Roofs	X
	Single-Family Residential Cisterns	R
4	Perforated Stub-out Connections	R
	Newly Planted Trees	S

R Evaluation required for all roof runoff from Single-family residential projects.

S Evaluation required for all surfaces of Single-family residential projects.

X Evaluation not required.

^a Installation only allowed for projects with less than 5,000 sf of impervious surface infiltrating on site.



Draft Major Code Revisions

- On-site Stormwater Management
 - On-Site Performance Standard:
 - Size for small storm events (less than 2-year storm)
 - Meet pasture condition if the existing impervious surface is greater than or equal to 35%
 - Meet forested condition for all other projects.



Timeline

- ✓ • **Spring 2013:** Outreach to Frequent Users
- ✓ • **Summer 2013:** Initial Outreach
- ✓ • **Fall 2013 / Winter 2014:** Public Outreach
- ✓ • **Spring 2014:** Initial drafts available for public comment
- • **Spring/Summer 2015:** Legislative process and formal public review for 2016 Stormwater Code Update
- **Summer/Fall 2015:** Directors' Rule process and formal public review for 2016 Stormwater Manual Update
- **January 2016:** Code and related Stormwater Manual (Directors' Rule) are scheduled to take effect

Stay Connected

- Join the Stormwater Code Listserv
- Visit the Stormwater Code Update Website
<http://www.seattle.gov/dpd/codesrules/changestocode/stormwatercode/getinvolved/default.htm>

Q & A



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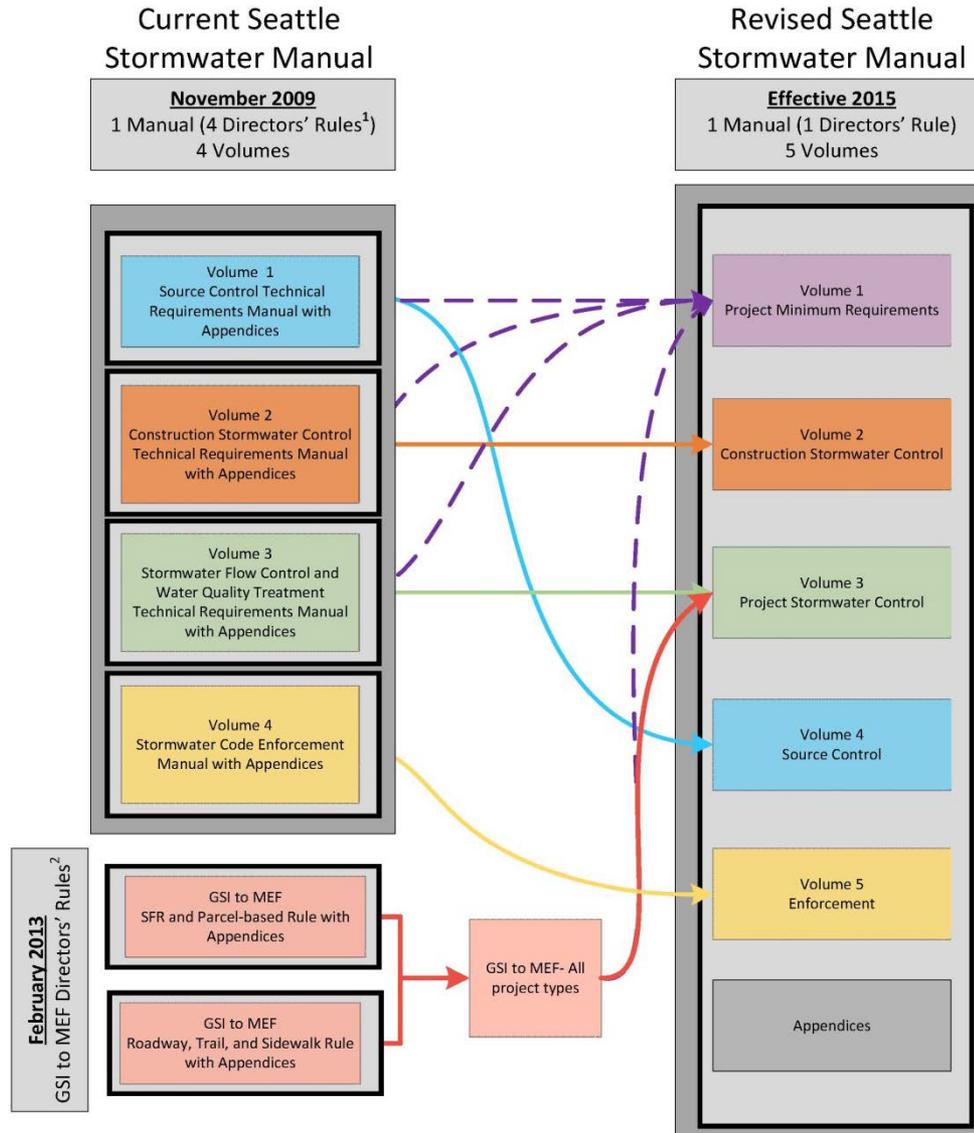
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Draft Manual Changes

- Overview of changes:
 - Manual Layout
 - Volume 1 – Project Minimum Requirements
 - Volume 2 – Construction Stormwater Control
 - Volume 3 – Project Stormwater Control
 - Volume 4 – Source Control
 - Volume 5 – Enforcement
 - Appendices

Draft Manual Changes





Draft Manual Changes

- Volume 1 – Project Minimum Requirements
 - New volume
 - Guide to other volumes for additional information
 - Chapters:
 - Minimum Requirements for All Projects
 - Minimum Requirements for Project Types
 - Site Assessment, Planning & Documentation
 - Drainage Control Review & Application Requirements



Draft Manual Changes

- Volume 1 – Project Minimum Requirements
 - Ch. 7 – Site Assessment & Planning
 - Revised to reflect Ecology’s changes
 - Added site design considerations:
 - Manage stormwater runoff
 - Preserve vegetation & soil
 - Minimize impervious surfaces & land disturbance
 - Minimize pollution-generating surfaces



Draft Manual Changes

- Volume 1 – Project Minimum Requirements
 - Ch. 8 – Drainage Control Review & Application Requirements
 - Revised to reflect Ecology’s changes
 - Added additional Standard Drainage Review Documentation
 - Revised to require additional documentation depending upon project location and size, including:
 - Soil analysis
 - Native vegetation survey



Draft Manual Changes

- Volume 2 – Construction Stormwater Control
 - Renamed volume
 - Condensed text
 - Added “Protect Green Stormwater Infrastructure BMPs” for equivalency
 - Updated, deleted, and added BMPs
 - Updated figures



Draft Manual Changes

- Volume 3 – Project Stormwater Control
 - Renamed volume
 - Condensed text
 - BMP selection combined into a single chapter
 - Design criteria combined into a single chapter
 - Non BMP information moved to appendices



Draft Manual Changes

- Volume 4 – Source Control
 - Condensed text
 - Updated, deleted, and added BMPs
 - Updated figures
- Volume 5 – Enforcement
 - Minor changes



Draft Manual Changes

- Appendices
 - Combined and centralized
 - Edited for equivalency
 - Several subjects moved from main text to appendices