

## Seattle 2015 Stormwater Code & Manual Update

### OPEN HOUSE

Tuesday, June 3, 2014

4:00 – 6:00 pm

Seattle Municipal Tower – Room 4050/60  
700 Fifth Ave  
Seattle, WA

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## Seattle Stormwater Code & Manual Update Purpose

- Provide Background on Project
- Update on Direction & Status
- Solicit Targeted Input
- Identify Next Steps

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## Seattle Stormwater Code & Manual Update Agenda

- Welcome & Introductions (4:00 – 4:15)
- Project Status & Overview (4:15 – 5:00)
  - Background
  - Summary of Draft Changes and Improvements
    - Draft Major Code Changes
    - Draft Major Manual Changes (as time allows)
  - Timeline
- Q & A (5:00 - 5:15)
- Breakout Session (5:15 – 5:45)
- Wrap Up (5:45 – 6:00)

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## Seattle Stormwater Code & Manual Update Introductions

- Project Team
  - Sherell Ehlers, Seattle Public Utilities
  - Cris Horbelt, Seattle Public Utilities
  - Ellen Stewart, Seattle Public Utilities
  - Michelle Macias, Department of Planning & Development
  - Maureen Meehan, Seattle Department of Transportation
  - Rebecca Dugopolski, Herrera Environmental Consultants
  - Nhi Irwin, Veda Environmental

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## Seattle Stormwater Code & Manual Update 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

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## Seattle Stormwater Code & Manual Update Strategic Direction

- Achieve equivalency with Ecology Manual (2012) & 2013 – 2018 Stormwater NPDES Permit
- Revisit some thresholds
- Use the revision process as an opportunity to:
  - Address shortcomings
  - Streamline requirements
  - Reorganize manual based on feedback
  - Simplify and limit text

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Overview of changes:
  - Exemptions
  - Exceptions
  - Vested Rights
  - Minimum Requirements for All Projects
  - Thresholds
  - Minimum Requirement Standards
  - Discharges
  - Source Control

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Exemptions
  - Revised that stand-alone utility projects not subject to On-site Stormwater Management
  - Revised that SPU Capital Improvement Utility Projects' are exempt from Flow Control, Water Quality Treatment & On-site Stormwater Management (*exemption under review*)
  - Revised "Road maintenance practices" to "Pavement maintenance practices" (matches Ecology language)

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Exceptions
  - Added an exception for Roadway Projects pertaining to construction feasibility hardship\* associated with:
    - Existing Infrastructure Limitations
    - Hydraulic limitations

\*based upon WSDOT 2014 Highway Runoff Manual

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Transition to 2015 Stormwater Code - Vested Rights
  - 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 2015 Stormwater Code applies
  - Affects building and master use permits (including short plats)

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Minimum Requirements for All Projects
  - GSI to MEF is now "On-site Stormwater Management"
  - On-site Stormwater Management thresholds are based upon Project Type (e.g. Parcel-based, Roadway)
  - "Protect GSI BMPs" added to Construction Site Stormwater Pollution Prevention (Equivalency)

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## Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Thresholds: On-site Stormwater Management
  - All Projects:
    - 2,000 sf of new or replace impervious surface, or
    - 7,000 sf of land disturbing activity
  - Change for Single-family Residential Projects
    - Some SFRs will be below 2,000 sf threshold
    - 1,500 sf credit no longer applicable
  - Status quo for other project types

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- **Thresholds: Flow Control**
  - Trail/Sidewalk & SFR Projects:
    - Status quo - not required
  - Parcel & Roadway Projects:
    - Thresholds status quo, but
    - Some combined sewer basins may not require flow control (*under review*)

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- **Thresholds: Water Quality Treatment**
  - Trail/Sidewalk & SFR Projects:
    - Status quo - not required
  - Parcel Projects:
    - Thresholds status quo
  - Roadway Projects
    - Threshold aligns with Ecology  
(i.e. 5,000 sf of new impervious surface & 50% or more expansion of the existing impervious surfaces for projects with >35% existing impervious surface)

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

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

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- **On-site Stormwater Management**
  - On-Site List by project type:
    - Single-family Residential
    - Trail and Sidewalk
    - Parcel-based
    - Roadway
  - Competing needs based on Ecology criteria

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**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 <sup>a</sup>	R, S <sup>a</sup>
	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
	Perforated Stub-out Connections	R
4	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.  
<sup>a</sup> Installation only allowed for projects with less than 5,000 sf of impervious surface infiltrating on site.

### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- **On-site Stormwater Management**
  - On-Site Performance Standard:

Existing impervious surface coverage	Pre-developed Condition	Range
<35%	Forested	8% of 2-year thru 50% of 2-year recurrence interval flow
≥35%	Pasture	1% thru 10% exceedance values

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Flow Control Standards
  - Revised Wetland Protection Standard to match Ecology changes
  - Revised Pre-Developed Forested Standard & Pre-Developed Pasture Standard phrasing for consistency with On-Site Performance Standard
  - No revision to Peak Control Standard (*under review*)

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Water Quality Treatment Standards
  - Will revise to clarify mass-loading sizing (*in progress*)
  - Revised Enhanced Treatment to match Ecology changes
  - Status quo for other treatment requirements

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

- Discharges
  - Prohibited discharges to the Combined System
  - Conditionally permissible discharges (e.g. swimming pools, sidewalk wash water, dust control)
  - Dye testing - 24 hour notice

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### Seattle Stormwater Code & Manual Update Draft Major Code Revisions

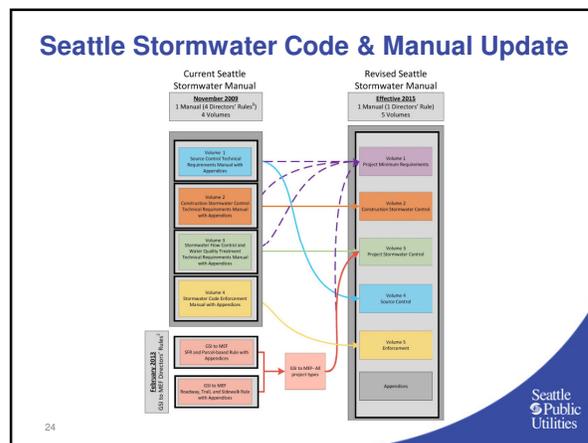
- Source Control
  - Mapping property drainage/plumbing
  - Site Maintenance

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### Seattle Stormwater Code & Manual Update 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

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### Seattle Stormwater Code & Manual Update 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




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### Seattle Stormwater Code & Manual Update 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



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### Seattle Stormwater Code & Manual Update 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



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### Seattle Stormwater Code & Manual Update 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




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### Seattle Stormwater Code & Manual Update 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




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### Seattle Stormwater Code & Manual Update Draft Manual Changes

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




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### Seattle Stormwater Code & Manual Update Draft Manual Changes

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



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### Seattle Stormwater Code & Manual Update 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 ✓
- Winter 2015: Formal Public Outreach
- June 2015  
Stormwater Code and related Directors' Rules are scheduled to take effect

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### Seattle Stormwater Code & Manual Update Stay Connected

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

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### Seattle Stormwater Code & Manual Update Q & A



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### Seattle Stormwater Code & Manual Update Breakout Session (30 minutes)

- Stormwater Code (except Source Control) → Sherell
- Volume 1 - Minimum Requirements → Rebecca
- Volume 3 - Project Stormwater Controls → Michelle
- Volume 2 - Construction Stormwater Controls → Maureen
- Stormwater Code (except Source Control) → Ellen
- Volume 4 - Source Control → Ellen
- Volume 5 - Enforcement → Ellen

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**Seattle Stormwater Code & Manual Update  
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