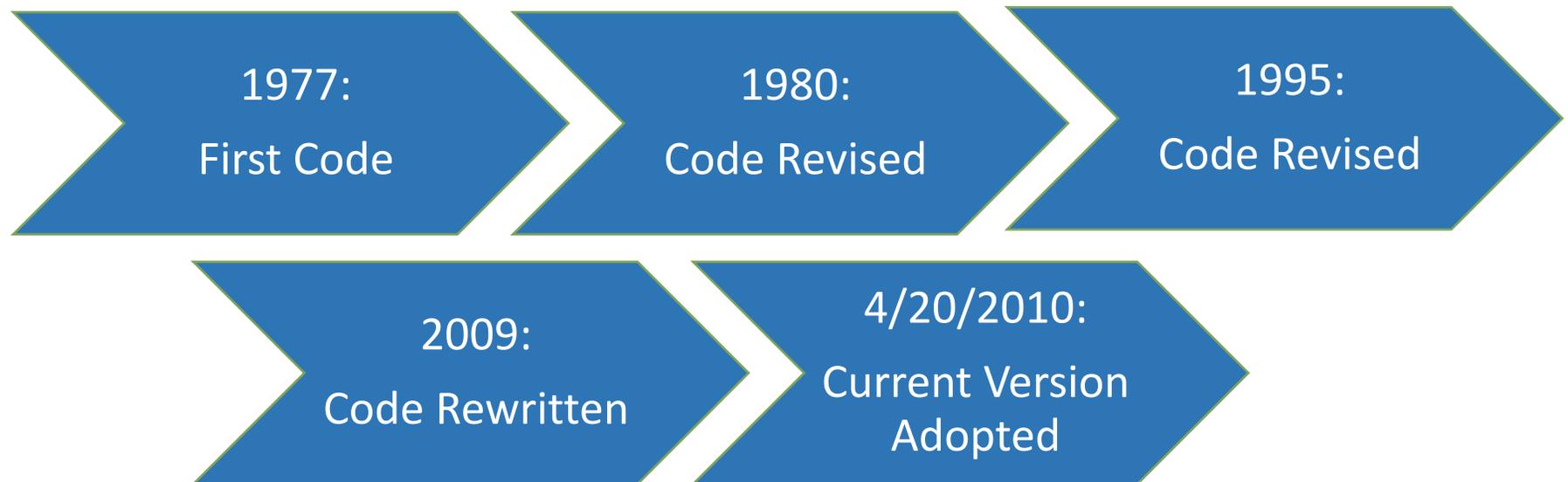


City of Edmonds

Stormwater Code Public Meetings

July 20, 2016

History of the City's Stormwater Code



Why is the Code being updated?

- Mandated by Department of Ecology
- Compliance with 2013-2018 Western Washington Phase II Municipal Stormwater Permit (NPDES Permit) required
- Compliance with 2014 Stormwater Management Manual for Western Washington (Ecology's Manual) required

(Edmonds is essentially implementing identical requirements as 87 "NPDES Phase II" municipalities across western Washington)

What changes can be expected?

- Most substantial change has to do with new Low Impact Development requirements (“Minimum Requirement (MR) #5” in the Permit)
 - Affects small projects ($\geq 2,000$ sq. ft. of impervious)
 - More complex site assessment requirements
 - Additional City review requirements

What changes can be expected?

Stormwater Management (SWM) - MR #5: Implementation



Category 1
Small Sites
(Trigger MR #1-#5)

**List #1 or
Modeling**
(LID Performance Standard)



Category 2
Small Sites
(Trigger MR #1-#9)

**List #2 or
Modeling**
(LID Performance Standard)

“List 1” and “List 2”

List 1 and List 2 provide options, established by Department of Ecology, for managing stormwater runoff on a project site.

Lawn and Landscaped Areas



Roofs



Other Hard Surfaces



Separate lists must be followed for each type of surface.

“List 1” and “List 2”

In design, all SWM options must be considered in the order listed.
The first option that is considered feasible is to be used.

Lawn and Landscaped Areas



1. Soil Quality and Depth

Roofs



1. Full Dispersion or Downspout Full Infiltration
2. Rain Gardens [or Bioretention]
3. Downspout Dispersion Systems
4. Perforated Stub-out Connections
5. Detention pipes or vaults (City-specific standard)

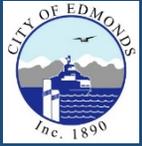
Other Hard Surfaces



1. Full Dispersion
2. Permeable Pavement [or Rain Gardens or Bioretention]
3. Sheet Flow Dispersion, or Concentrated Flow Dispersion
4. Detention pipes or vaults (City-specific standard)

What changes can be expected?

- City will not require historical tracking of impervious surface area on individual properties.
- Stormwater management of 25% of existing unmanaged impervious surfaces will be required (retrofitting).



QUESTIONS?

Project examples next ...

Minimum Requirement No. 5

SCENARIO #1 – Existing Unmanaged Surfaces - Retrofit

The project includes an existing “unmanaged” parking lot, and an existing structure. The project will tear down and rebuild the structure, but will not alter the parking area. The project discharges to the City’s storm system.

Triggers Minimum Req. No. 1-5 Plus Retrofit Requirement

Project site contains existing hard surfaces that do not drain to an approved stormwater management facility, and will not be modified as part of the proposed project.

List No. 1

Existing hard surfaces: Use any BMPs from List No. 1 to manage at least 25% of existing unmanaged surface area. BMPs are not required to be evaluated in priority order or document infeasibility.

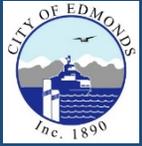
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Minimum Req. 5 Applies for Replaced Structure

New/Replaced surfaces: See details on requirements for Project Scenarios 2-5.

List No. 1 (Select any listed BMPs to manage at least 25% of existing hard surfaces)

Lawn and Landscaped Areas	Roofs	Other Hard Surfaces
<ul style="list-style-type: none"> • Soil Quality and Depth 	<ul style="list-style-type: none"> • Full Dispersion or Downspout Full Infiltration • Rain Gardens or Bioretention • > 5% of drainage area • Downspout Dispersion Systems • Perforated Stub-out Connections • Detention pipes or vaults (City-specific standard) 	<ul style="list-style-type: none"> • Full Dispersion • Permeable Pavement, Rain Gardens, or Bioretention • Rain Garden or Bioretention area > 5% of drainage area • Sheet Flow Dispersion, or Concentrated Flow Dispersion • Detention pipes or vaults (City-specific standard)



Minimum Requirement No. 5

SCENARIO #2 – **Category 1** Project



The project results in 3,000 square feet of new plus replaced hard surface area and discharges to the City's storm system.

Triggers Minimum Req. No. 1-5

- Result in **2,000 square feet or greater of new plus replaced hard surface area, or**
- Has land disturbing activity of 7,000 square feet or greater

List No. 1 or Modeling
(LID Performance Standard)

List No. 1 (Select the first feasible BMP per surface)

LID Performance Standard

Lawn and Landscaped Areas



1. Soil Quality and Depth

Roofs

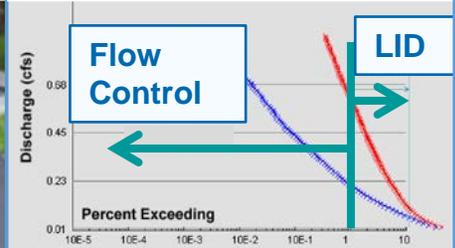


1. Full Dispersion or Downspout Full Infiltration
2. Rain Gardens or Bioretention
 - > 5% of drainage area
3. Downspout Dispersion Systems
4. Perforated Stub-out Connections
5. **Detention pipes or vaults (City-specific standard)**

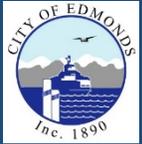
Other Hard Surfaces



1. Full Dispersion
2. **Permeable Pavement, Rain Gardens, or Bioretention**
 - Rain Garden or Bioretention area > 5% of drainage area
3. Sheet Flow Dispersion, or Concentrated Flow Dispersion
4. **Detention pipes or vaults (City-specific standard)**



Performance standard to meet Min. Req. No. 5 using any stormwater BMP instead of List No. 1



Minimum Requirement No. 5

SCENARIO #3 – Category 2 Project



The project removes and replaces structures and pavement totaling 12,000 square feet of area and discharges to the City's storm system.

Triggers Min. Req. No. 1-9

- Result in 5,000 square feet or greater of new plus replaced hard surface area, or
- Convert 0.75 acres, or more, of vegetation to lawn or landscaped areas, or
- Convert 2.5 acres, or more, of native vegetation to pasture

List No. 2 or Modeling
(LID Performance Standard)

List No. 2 (Select the first feasible BMP per surface)

LID Performance Standard

Lawn and Landscaped Areas



1. Soil Quality and Depth

Roofs

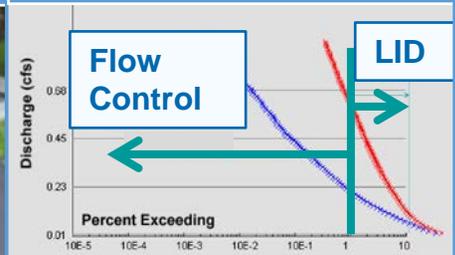


1. Full Dispersion or Downspout Full Infiltration
2. Bioretention
 - > 5% of drainage area
3. Downspout Dispersion Systems
4. Perforated Stub-out Connections
5. Detention pipes or vaults (City-specific standard)

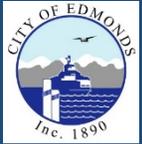
Other Hard Surfaces



1. Full Dispersion
2. Permeable Pavement
3. Bioretention
 - > 5% of drainage area
4. Sheet Flow Dispersion, or Concentrated Flow Dispersion
5. Detention pipes or vaults (City-specific standard)



Performance standard to meet Min. Req. No. 5 using any stormwater BMP instead of List No. 2



Minimum Requirement No. 5

SCENARIO #4 – Direct Discharge to Puget Sound (and located in Edmonds Way Basin)



The project is located in a direct discharge basin and includes specific requirements for the Edmonds Way basin. The project results in 3,000 square feet of new plus replaced hard surface area.

Triggers MRs No. 1-5
(Category 1 Project)

Direct Discharge to Puget Sound

CATEGORY 1 OR 2 PROJECTS
Only a subset of List No. 1 applies

If project is also located in the Edmonds Way basin

Provide peak flow control for all remaining project site runoff

Subset of List No. 1 (Select any listed BMPs per surface)

Edmonds Way

Lawn and Landscaped Areas



- Soil Quality and Depth

Roofs



- Downspout Full Infiltration,
- Downspout Dispersion Systems,
- or**
- Perforated Stub-out Connections

Other Hard Surfaces

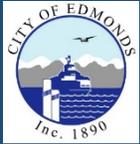


- Sheet Flow Dispersion **or**
- Concentrated Flow Dispersion

Flow Control Requirement



Provide peak flow control for all remaining project site runoff not managed by the BMPs implemented from List No. 1

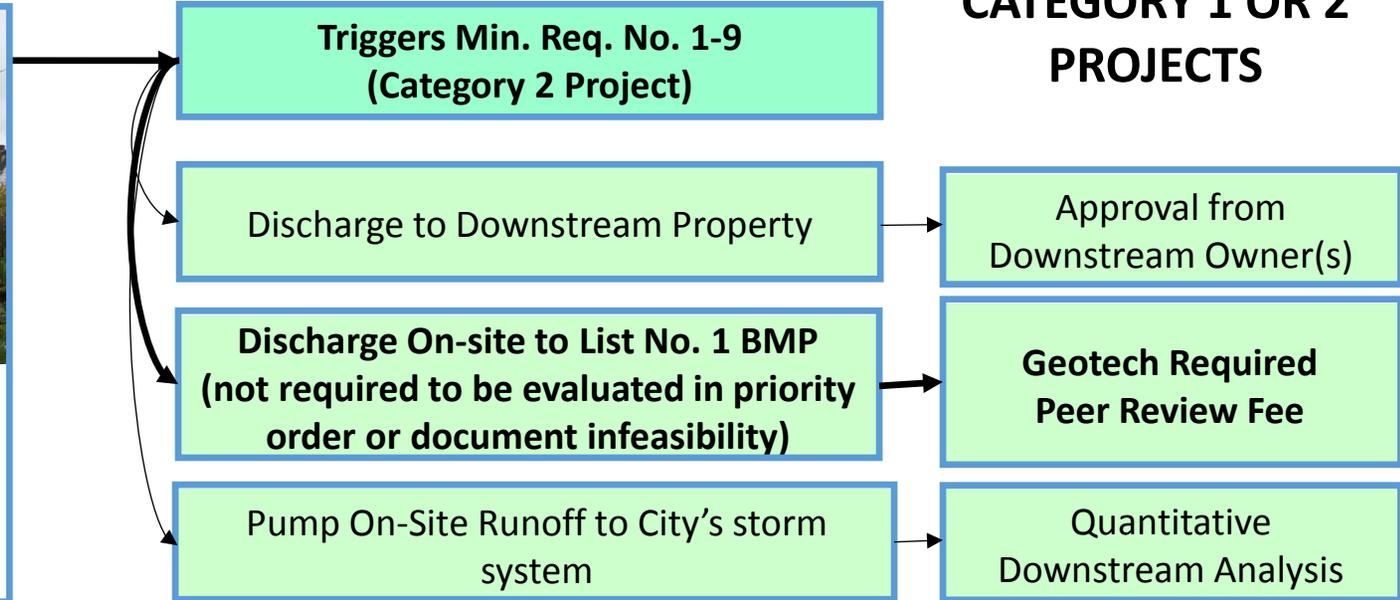


Minimum Requirement No. 5

SCENARIO #5 – Does NOT Discharge to the City’s Storm System



The project removes and replaces structures and pavement totaling 6,000 square feet and does NOT discharge to the City’s storm system.



CATEGORY 1 OR 2 PROJECTS

List No. 1 (Select any listed BMPs per surface with geotechnical design and analysis)

Lawn and Landscaped Areas



- Soil Quality and Depth

Roofs



- Full Dispersion or Downspout Full Infiltration
- Rain Gardens or Bioretention
- > 5% of drainage area
- Downspout Dispersion Systems
- Perforated Stub-out Connections
- **Detention pipes or vaults (may be required with discharge via pump)**

Other Hard Surfaces



- Full Dispersion
- Permeable Pavement, Rain Gardens, or Bioretention
- Rain Garden or Bioretention area > 5% of drainage area
- Sheet Flow Dispersion, or Concentrated Flow Dispersion
- **Detention pipes or vaults (may be required with discharge via pump)**

Schedule / Status

- August 2, 2016 – City Council Public Hearing
- August 16, 2016 – City Council Action Item (Seeking approval of code with an effective date of Jan 1, 2017)
- Fall 2016 – Completion of Stormwater Addendum. Development of implementation tools (e.g., review checklists)

Resources

- **Department of Ecology Western Washington Stormwater Manual**
- **Edmonds Stormwater Code** (draft to be published 7/22/2016)
- **Edmonds Handouts** (currently on website and new materials coming later this year)
- **Edmonds Green Resource Center** (Grand Opening 7/27/2016)
- **Snohomish County Conservation District** (Contact Kate Riley – 425-377-7004 or Derek Hann – 425-377-7012)



QUESTIONS?

Thank you for coming!