

Stormwater Ordinance Update

http://www.clark.wa.gov/water-resources/SWMP/sw_ordinance_update.html



CLARK COUNTY
WASHINGTON

proud past, promising future



Introductions

Clark County Stormwater Ordinance Update



Review Meeting Notes

Clark County Stormwater Ordinance Update



Agenda

Introductions

Meeting Notes Approval

Member Updates

Review from last meeting – MR 6 & 7

Policy Implications

Low Impact Development

Next Steps

Public Comment

Adjourn

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Member Updates

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Expectations

1. Review MR 6 & 7
2. Policy discussions
3. Low Impact Development



Review... MR 6 & 7

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The Minimum Requirements

- MR 1: Preparation of Stormwater Site Plans
- MR 2: Construction Stormwater Pollution Prevention (SWPP)
- MR 3: Source Control of Pollution
- MR 4: Preservation of Natural Drainage Systems and Outfalls
- MR 5: On-site Stormwater Management
- MR 6: Runoff Treatment
- MR 7: Flow Control
- MR 8: Wetlands Protection



The Minimum Requirements

MR 9: Basin/Watershed Planning

MR 10: Operation and Maintenance

OG 1: Financial Liability

OG 2: Off Site Analysis and Mitigation

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Review - Minimum Requirements 6 and 7

Project Thresholds – Tier 1

Minimum Requirement Thresholds – Tier 2

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Minimum Requirement 6 – Water Quality

CCC 40.380.040 (B)

NPDES Appendix 1, pg 19 of 29

Ecology Manual, Volume 1, pg 2-27

Handout

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Minimum Requirement 6 – Water Quality

Minimum Requirement 6 Thresholds:

Effective PGIS is 5,000 SF or more in a TDA

PGPS $\frac{3}{4}$ of an acre or more in a TDA and it discharges from the site

“fully dispersed” PGIS surfaces in accordance with BMP T5.30 are considered non-effective.

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Example: MR 6 Thresholds

Project creates 9,000 SF of new impervious surface and 5,000 SF of landscaping.

Effective PGIS – 6,000 SF

Non-effective impervious – 3,000 SF

PGPS – 5,000 SF

The project discharges to one TDA.

Does MR 6 apply?

Answer: Yes



Minimum Requirement 7 – Flow Control

CCC 40.380.040 (C)

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Minimum Requirement 7 – Flow Control

Minimum Requirement 7 Thresholds:

Effective PGIS is 10,000 SF or more in a TDA

$\frac{3}{4}$ of an acre or more converted to
lawn/landscaping

2.5 acres or more converted to pasture

0.1 CFS or more increase in 100-year flood
frequency

“fully dispersed” PGIS surfaces in accordance
with BMP T5.30 are considered non-effective.

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Example: MR 7 Thresholds

Project creates 9,000 SF of new impervious surface and 5,000 SF of landscaping.

Effective PGIS – 6,000 SF

Non-effective impervious – 3,000 SF

PGPS – 5,000 SF

100-year flow increase less than 0.1 CFS

The project discharges to one TDA.

Does MR 7 apply?

Answer: No



Example MR Thresholds

Project creates 0.9 acres of new landscaping where native vegetation currently exists.

The site discharges to two separate TDAs, one 0.8 acres and one is 0.1 acres.

Does MR 6 apply?

Answer: Yes for 0.8 acre TDA only.

Does MR 7 apply?

Answer: Yes for 0.8 acre TDA only.



Code Comparison Example

Scenarios:

1. Commercial
2. Residential

Each modeled using:

Current county ordinance

New Ecology Manual

(continuous flow

design using MGSFlood)

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Single Family Residential Development

58 Lots ~ 3500 sq-ft each

Total developed area = 6.3 acres



Detention Pond Sizing

Current County Ordinance

Volume 54,491 cf Area 0.5 acre

New Department of Ecology Standard

Volume 109,771 cf Area 1.0 acre



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Commercial Development

2.63 acre development

90% impervious coverage

Detention provided by underground storage



Detention Pond Sizing

Current County Ordinance

Volume 16,964 cf

600 feet of 72-inch detention pipe

New Department of Ecology Standard

Volume 63,469 cf

2250 feet of 72-inch detention pipe

Four fold increase in required detention.

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Policy Discussion

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Exemptions

2. ...agricultural practices... and the construction of impervious surfaces are not exempt.



Exemptions

8. ...construction of single family homes... on an existing lot within the rural area...



WWHM Model

Ecology meeting October 19

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Historic Prairies vs Forested

GLO Cadastral Maps

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Private vs Public Facilities

When are private facilities appropriate?

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Low Impact Development

S(5)(b)(iii)

The program must allow non-structural preventive actions and source reduction approaches such as Low Impact Development Techniques (LID), to minimize the creation of impervious surfaces, and measures to minimize the disturbance of soils and vegetation.



Low Impact Development

Proposed Definition:

Low Impact Development (LID) is an approach to stormwater management that emphasizes the use of on-site natural and built features to reduce the impacts of increased flow rates and volumes associated with increases in impervious area. LID involves assessing and understanding the site, protecting native vegetation and soils, and minimizing and managing stormwater at the source. LID techniques may be considered an alternative to traditional, structural stormwater management solutions.



Low Impact Development

Proposed LID BMP's

Bioretention

rain gardens

planters

swales

Pervious pavement

Dispersion

Amended construction site soils

Reversed slope sidewalks

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Low Impact Development

LID manual versus ordinance

Frequent updates

Eliminate multiple references

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Low Impact Development

Maintenance and ownership of facilities

County or private

Pros/cons

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Low Impact Development

Education & outreach

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Next Steps

SAC Meeting 5

Tuesday, November 13, 2007 6:00 pm
PSC 6th Floor Training Room

Additional meetings December 4 and 18?

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Next Steps

Ecology Meeting

Friday, October 19, 2007 – 1:30 pm

New Tradition Homes Conference Center
11815 NE 113th Street (across from Prairie
High-School)

Vancouver, WA 98662

TAC Meeting 6

Wednesday, October 24, 2007 1:30 pm

WDFW

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Public Comment

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Adjourn

Next meeting:

November 13, 2007

Public Service Center

6th Floor Training Room

6:00 pm to 8:00 pm

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