

Stormwater Ordinance Update



proud past, promising future

CLARK COUNTY
WASHINGTON



Agenda

Introductions

Member Updates

Review from last meeting

Minimum Requirements 6 and 7

Next Steps

Public Comment

Adjourn

The web site:

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

Clark County Stormwater Ordinance Update



Introductions

Clark County Stormwater Ordinance Update



Member Updates

Design Engineering Advisory Board (DEAB)
Workshop Session Issues

Clark County Stormwater Ordinance Update



Expectations for tonight

1. Input and consensus on old material.
2. Review MR 6 and 7 and the TDA thresholds concept.
3. Introduce identified policy issues related to water quality and quantity control.

Clark County Stormwater Ordinance Update



Review...

What we covered at the last meeting:

Minimum Requirements

Exemptions

Project Thresholds

Clark County Stormwater Ordinance Update



The Minimum Requirements

NPDES Permit Appendix 1, pg 12 of 29

Ecology Manual, Volume 1, pg 2-15

Clark County Stormwater Ordinance Update



The Minimum Requirements

MR 1: Preparation of Stormwater Site Plans

40.380.060(B), (C), and (D)

MR 2: Construction Stormwater Pollution Prevention (SWPP)

40.380.050 and 060(E)

MR 3: Source Control of Pollution

40.380.040(B)(6)

Clark County Stormwater Ordinance Update



The Minimum Requirements

MR 4: Preservation of Natural Drainage Systems and Outfalls

40.380.040(C)(1)

MR 5: On-site Stormwater Management

40.380.040(C)(3)



The Minimum Requirements

MR 6: Runoff Treatment

40.380.040(B)

MR 7: Flow Control

40.380.040(C)

MR 8: Wetlands Protection

40.450 Wetland Protection

Clark County Stormwater Ordinance Update



The Minimum Requirements

MR 9: Basin/Watershed Planning

CCC 40.380.040(C)(5)(a)

Lacamas Lake nutrient control.

CCC 40.380.040(K) and (L)

MR 10: Operation and Maintenance

40.380.040(H)

Clark County Stormwater Ordinance Update



The Minimum Requirements

Optional Guidance

OG 1: Financial Liability

CCC 40.380.040(I), (J)

OG 2: Off Site Analysis and Mitigation

CCC 40.380.040(B)(2)

Clark County Stormwater Ordinance Update



Exemptions

CCC 40.380.030

NPDES Appendix 1, pg 1 of 29

Ecology Manual, Volume 1, pg 2-3

Concept Code (handout)



Exemptions

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

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

Add exemption to MR 4 to allow flexibility for wetland enhancement or drainage projects.



Exemptions

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

Response:

Provide more specific examples.



Example

On a site that is less than 35% impervious, an existing 1,900 SF barn is being replaced.

Exempt?

Ecology

- **MR 2 only (Erosion Control)**

Current code

- **Exempt (if agriculture)**



Example

On a site that is less than 35% impervious, an existing 15,000 SF barn is being replaced.

Exempt?

Ecology

- MR 1 through 5 apply.

Current code

- Exempt (if agriculture)



Example

On a site that is less than 35% impervious, the owner is having a new 15,000 SF barn and 25,000 SF of new driveway built.

Exempt?

Ecology

– MR 1 through 10 apply to the new impervious surface.

Current code

– Exempt (if agriculture)

Clark County Stormwater Ordinance Update



Exemptions

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

Consensus?



Exemptions

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

Question:

1. Vesting of plat and building permit.
2. Reason for the exemption to begin with.
3. What new options will the code provide to this type of construction?



Example

A 5,000 SF house on a 1 acre lot platted last month in the rural area, including a 7,000 SF driveway and 15,000 SF of landscaping.

Exempt?

Ecology

– Not exempt.

Current code

– Exempt.

Clark County Stormwater Ordinance Update



Exemptions

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

More to come...



Exemptions

Add exemption to MR 4 to allow flexibility for wetland enhancement or drainage projects.



Applicability of the Minimum Requirements or Project Thresholds

CCC 40.380.020

NPDES Appendix 1, pg 7 of 29

Ecology Manual, Volume 1, pg 2-8

Handout

Clark County Stormwater Ordinance Update



Quick recap of the changes

Started with permit language.

Eliminated 2,000 SF for urban threshold.

New:

2,000 SF or more of new, replaced, or new plus replaced impervious surface - MR 1-5

Change:

Was 1 acre, now 7,000 SF of land-disturbing activity without creation or replacement of impervious surface – MR 1-5

Clark County Stormwater Ordinance Update



Quick recap of the changes

New:

Converts $\frac{3}{4}$ acre or more of native vegetation to lawn or landscaped area, or converts 2.5 acres of native vegetation to pasture - MR 1-10

Change:

Redevelopment

area criteria for roads

percent of value for other projects.

Clark County Stormwater Ordinance Update



Comments...

Creating impervious surfaces:

The existing 1,000 SF for some uses are still being looked at.

The process to document exemptions and applicability.

Will the 40% rule apply?



Comments...

Converting pervious surfaces:

What percentage of existing vegetation must be native vegetation so that all vegetation is considered to be native vegetation?

Hmmmmmm?



Comments...

Redevelopment:

For applicability purposes, how is road frontage and on site work considered?

Should we find incentives to promote redevelopment?



Comments...

Other???

Clark County Stormwater Ordinance Update



Minimum Requirements 6 and 7

Project Thresholds – Tier 1

Minimum Requirement Thresholds – Tier 2

But first... some definitions.

Clark County Stormwater Ordinance Update



Definitions

CCC 40.100.070

NPDES Appendix 1, pg 3 of 29

Ecology Manual, Volume 1, pg 2-4



Definitions

Impervious Surface

“Impervious surface” means a hard surface area that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development. A hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development...



Definitions

Pollution-generating impervious surface (PGIS)

“Pollution-generating impervious surfaces (PGIS)” means an impervious surface considered to be a significant source of pollutants in stormwater runoff. Such surfaces include those which are subject to vehicular use; industrial activities; or storage of erodible or leachable materials, wastes, or chemicals, and which receive direct rainfall or the run-on or blow-in of rainfall.

Clark County Stormwater Ordinance Update



Definitions

Pollution-generating pervious surface (PGPS)

“Pollution-generating pervious surface (PGPS)” means any non-impervious surface subject to use of pesticides and fertilizers or loss of soil. Typical PGPS include lawns, landscaped areas, golf courses, parks,



Definitions

Effective Impervious Surface

“Effective impervious surface” means those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage system. Impervious surfaces on residential development sites are considered ineffective if the runoff is dispersed through at least one hundred feet of native vegetation in accordance with BMP T5.30 – “Full Dispersion,” as described in Chapter 5 of Volume V of the Stormwater Management Manual for Western Washington (2005).



Definitions

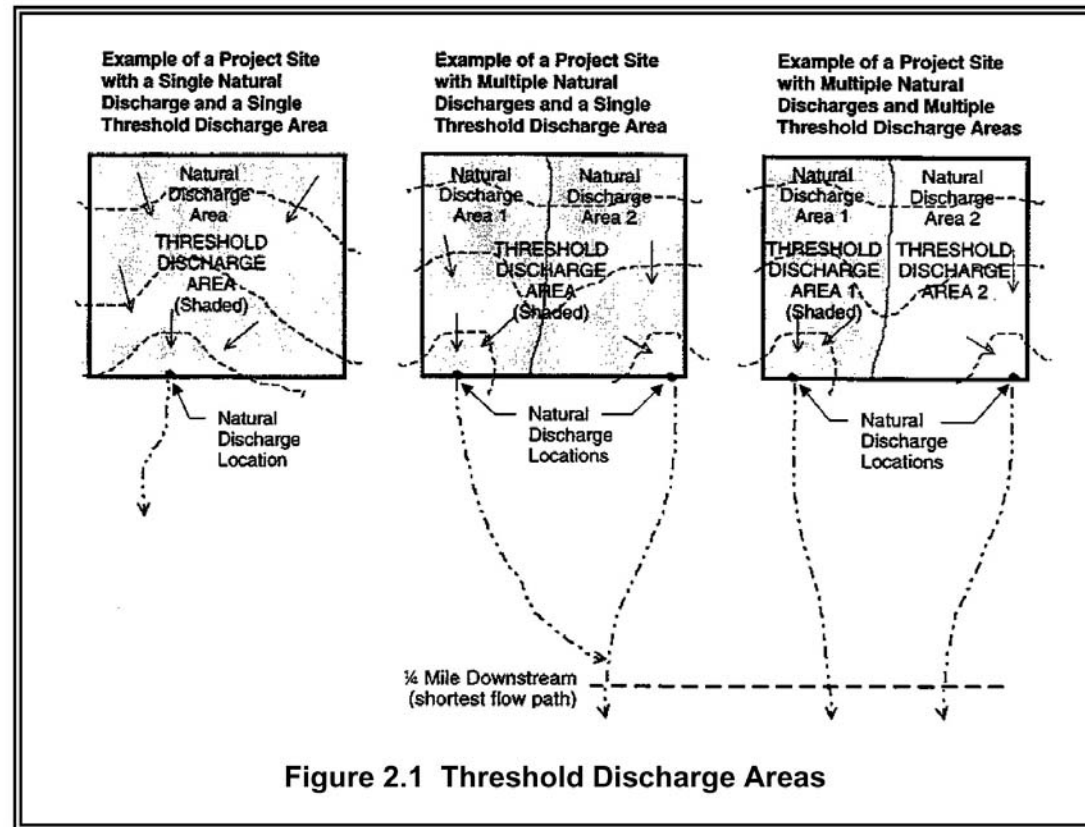
Threshold discharge area

An onsite area draining to a single natural discharge location or multiple natural discharge locations that combine within one-quarter mile downstream (as determined by the shortest flowpath). The examples in Figure 2.1 below illustrate this definition. The purpose of this definition is to clarify how the thresholds of this manual are applied to project sites with multiple discharge points.



Definitions

Threshold discharge area





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

Clark County Stormwater Ordinance Update



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 to BMP T5.30 are considered non-effective.

Clark County Stormwater Ordinance Update



Example: Project Thresholds

Project creates 9,000 SF of new impervious surface and 5,000 SF of landscaping. The project discharge to one TDA.

What MR's would apply?

Answer: MR's 1-10

(current no change)



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)

NPDES Appendix 1, pg 23 of 29

Ecology Manual, Volume 1, pg 2-30

Handout

Clark County Stormwater Ordinance Update



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 to BMP T5.30 are considered non-effective.

Clark County Stormwater Ordinance Update



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 Project 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.

What MR's would apply?

Answer: MR's 1-10



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.



Example

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

What MR's would apply?

Answer: MR's 1-10

(current erosion control only)



Policy Issues

The new ponds are much larger!

Currently working on a model to demonstrate the difference.

Continuous model calibration for Clark County
Soil Data and Rainfall Data

Infiltration Testing Methods/Procedures

40.380.040(C)(3)(f) Minimum 8 in/hr

UIC Regulations/Registration

Clark County Stormwater Ordinance Update



Policy Issues

Setback requirements vs. zoning

Infiltration facilities 20' downslope and
100' upslope of building foundation

(Ecology pg 3-82)

Stormwater Easements

Allowing infiltration facilities in the right-of-
way

Facility Ownership

Clark County Stormwater Ordinance Update



Next Steps

SAC Meeting 4

Tuesday, October 16, 2007 6:00 pm
PSC 6th Floor Training Room

Feedback MR 6 and 7

Low Impact Development

Clark County Stormwater Ordinance Update



Next Steps

TAC Meeting 5

Wednesday, October 3, 2007 1:30 pm
WDFW

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

Being rescheduled

Clark County Stormwater Ordinance Update



Public Comment

Clark County Stormwater Ordinance Update



Adjourn

Next meeting:

October 16, 2007

Public Service Center

6th Floor Training Room

6:00 pm to 8:00 pm

Clark County Stormwater Ordinance Update
