



Clark County Stormwater Code and Manual Update

Ecology's Significant Mandated Changes

Presented to DEAB

November 7, 2024

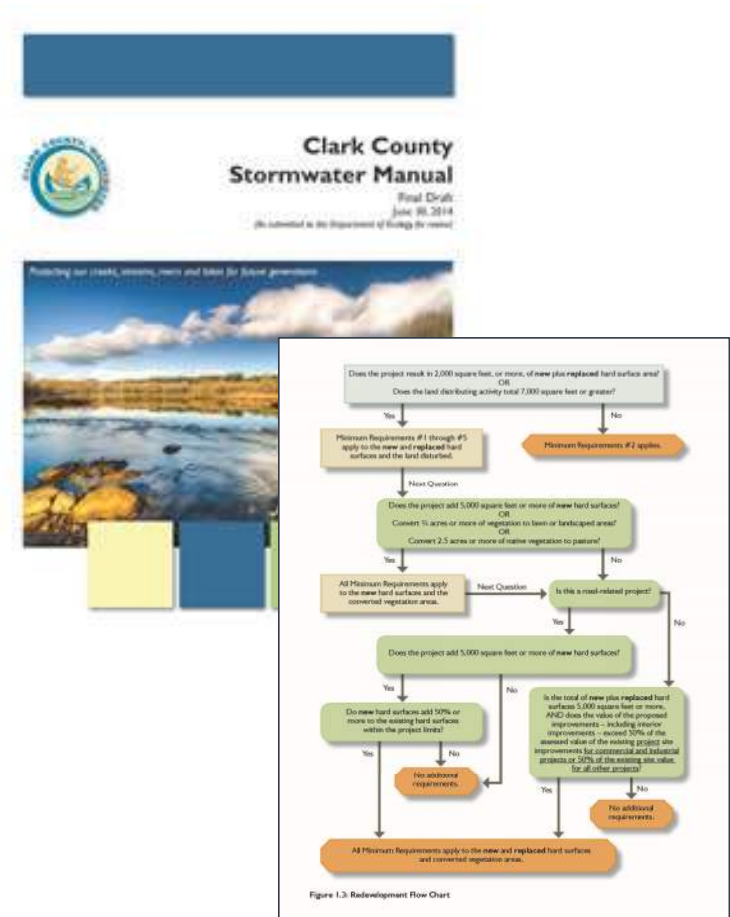
Agenda

- Project Review
- Discussion - Ecology's Significant Mandated Changes
- Next Steps

Project Overview

Improving water quality, ensuring compliance

- Department of Ecology issued new stormwater permit ([2024](#)) and Stormwater Manual ([2024](#))
 - New requirements for new development and redevelopment ([Appendix 10](#), [Appendix 1](#))
 - Updated technical standards and guidance language (Manual)
- Update Clark County Stormwater Manual (CCSM) & Clark County Code (CCC)
 - Incorporate staff/DEAB suggestions
 - Evaluate infiltration testing requirements
- Training Needs Assessment



Project Overview

Enforceable Documents to be Updated

- Clark County Code
 - 13.26A: Water Quality
 - 40.100: Definitions
 - 40.386: Stormwater and Erosion Control
 - 40.500: Procedures
- Clark County Stormwater Manual
 - Book 1, Book 2, Book 3, Book 4

Ecology's Significant Mandated Changes

Source: 2024-2029 Phase I Stormwater Permit, Appendix 10

Appendix 10 – Equivalent Programs for Runoff Controls for New Development, Redevelopment, and Construction Sites

Appendix 1 – Minimum Technical Requirements – Frequently referenced in Appendix 10

Significant Changes

1. **Redevelopment Project Level Thresholds:** The "Project Level" thresholds for applying the Minimum Requirements to redevelopment projects have been updated.

- Project Level - Redevelopment Thresholds / Road Related Projects

The updated threshold for road related projects states that all Minimum Requirements apply to the new and replaced hard surfaces and converted vegetation areas if the project adds 5,000 square feet of new plus replaced hard surfaces AND the new plus replaced hard surfaces total 50% or more of the existing hard surfaces on the Site (underline shows the new language).

- Project Level - Redevelopment Thresholds / Commercial or Industrial Projects

The updates include a new threshold for commercial or industrial Sites. The new threshold states that all Minimum Requirements apply to the new and replaced hard surfaces and converted vegetation areas if the Project adds more than 5,000 square feet of new plus replaced hard surfaces AND the new plus replaced hard surfaces total 50% or more of the existing hard surfaces within the Site.

See **Section 3** of Appendix 1.

- Threshold 1:

- o the total Project adds 5,000 square feet or more of new plus replaced hard surfaces ~~is 5,000 square feet or more~~, and
 - For commercial or industrial projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Project Site improvements.
 - For all other projects: the valuation of the proposed improvements, including interior improvements, exceeds 50% of the assessed value of the existing Site improvements.

- Threshold 2 (for commercial or industrial sites only):

- o the Project adds 5,000 square feet or more of new plus replaced hard surfaces, and
- o the new plus replaced hard surfaces total 50% or more of the existing hard surfaces within the Site.

[Link to Appendix 10](#)

[Link to Appendix 1](#)

Ecology's Significant Mandated Changes

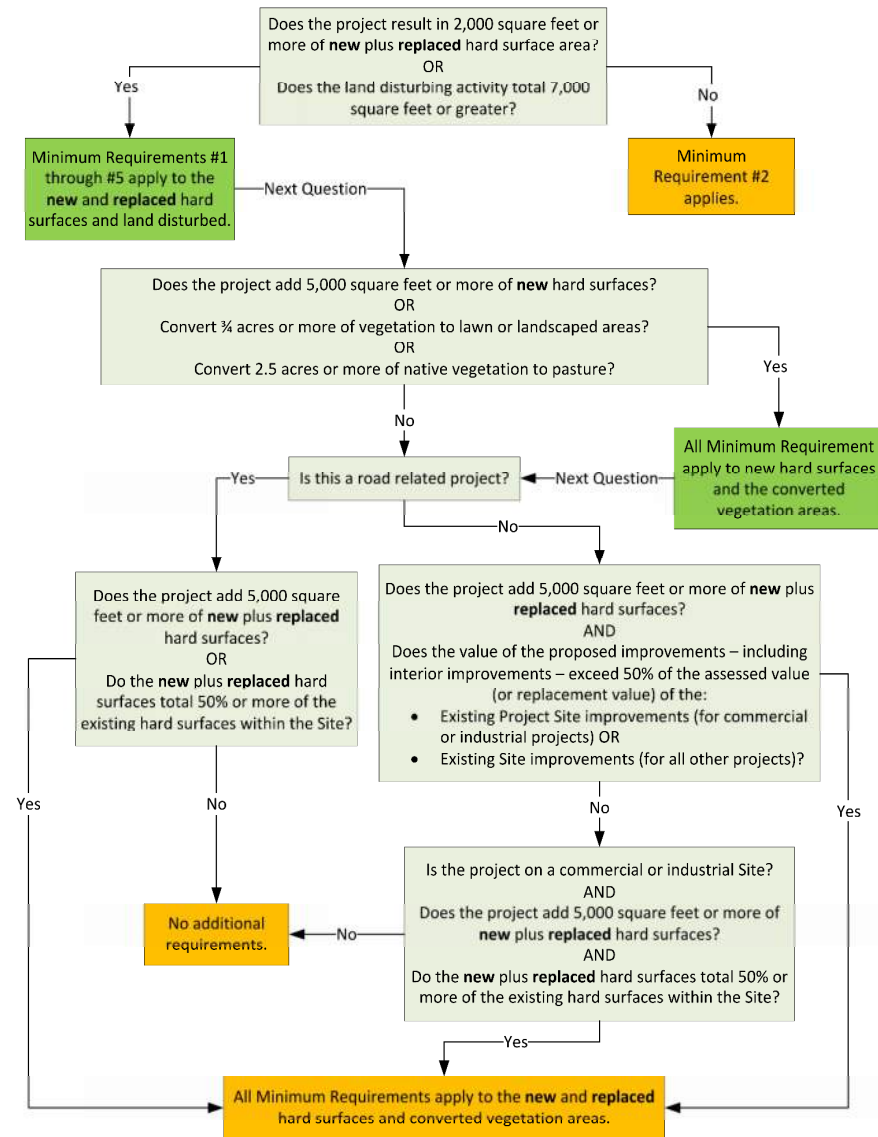
1. Redevelopment Project Level Thresholds

- Applies to:
 - Road, Commercial, and Industrial Redevelopment Projects
- Located at:
 - CCSM 1.4.2.1 Additional Requirements for the Redevelopment Project Site
 - Figure 1.3

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See **Section 3** of Appendix 1.

Revised Figure 1.3, Determining Requirements for Redevelopment



Ecology's Significant Mandated Changes

2. Project Exemptions

Project Exemptions: The text describing the exemptions from Minimum Requirements has been updated to ensure that the project scope does not exceed the intention of these limited exemptions.

- Applies to:
 - Pavement maintenance exemption
 - Utility project exemption
- Located at:
 - CCSM 1.2.2, Total Exemptions from the Minimum Requirements
 - CCSM 1.2.2.1, Clarification of Pavement Maintenance Exemptions
 - CCC Chapter 40.386, Stormwater and Erosion Control

Ecology's Significant Mandated Changes

3. Definitions Related to Minimum Requirements

Definitions Related to Minimum Requirements: Multiple definitions related to the Minimum Requirements have been updated for statewide consistency and/or to reflect updated requirements.

An example of a term with an updated definition to reflect an updated requirement is “vehicular use”. The definition for “vehicular use” has been updated to identify Light Rail tracks (both elevated and non-elevated) as a pollution generating impervious surface.

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3. Definitions Related to Minimum Requirements

- Applies to definitions of:
 - Average Daily Traffic (ADT) (new)
 - Bioretention (revised)
 - Common plan of development or sale (new)
 - Effective impervious surface (revised)
 - Impervious surface (revised)
 - New hard surface (new)
 - On-site stormwater management BMP (revised)
 - Pollution-generating impervious surface (revised)
 - Project (revised)
 - Project site (revised)
 - Replaced hard surface (revised)
 - Site (revised)
 - Threshold Discharge Area (TDA) (revised)
 - Vehicular use (revised)

Ecology's Significant Mandated Changes

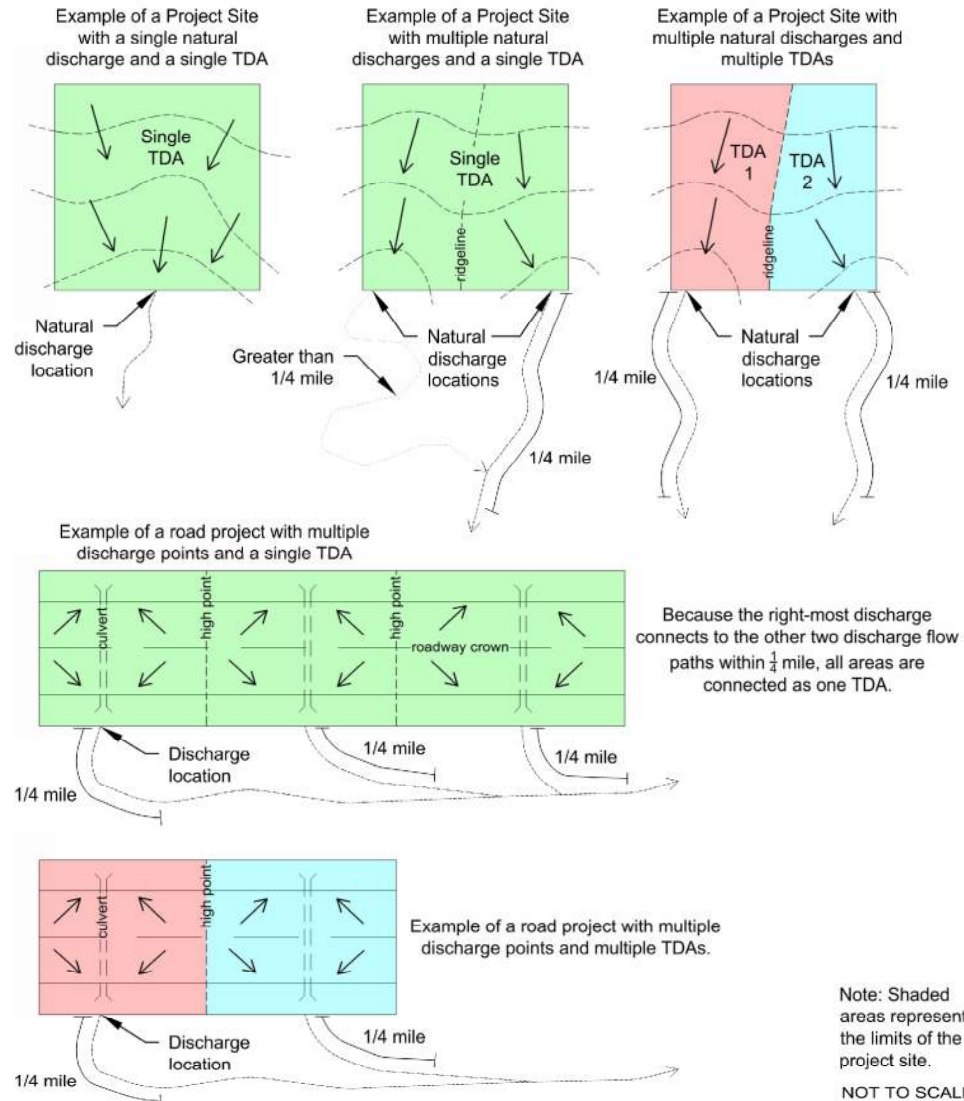
3. Definitions Related to Minimum Requirements

- Located at:
 - CCSM 1.3, Definitions Related to Minimum Requirements
 - CCSM Appendix 1-A, Glossary
 - CCC 40.100.070
 - CCC 40.386.010.E, Definitions

TDA

An on-site area draining to a single natural discharge location or multiple discharge locations that combine within one-quarter mile downstream (as determined by the shortest flow path). The purpose of this definition is to clarify how the thresholds of this manual are applied to project sites with multiple discharge points.

If the project site does not currently discharge at the natural location and is such that it is impractical (as determined by Clark County) to return the discharge to the natural location, then the TDA delineation would be based on the discharge(s) at the existing location(s). An example of this case is a site in an ultra urban environment, where fully built-out conveyance systems exist and are not in the natural (i.e. historic) locations.

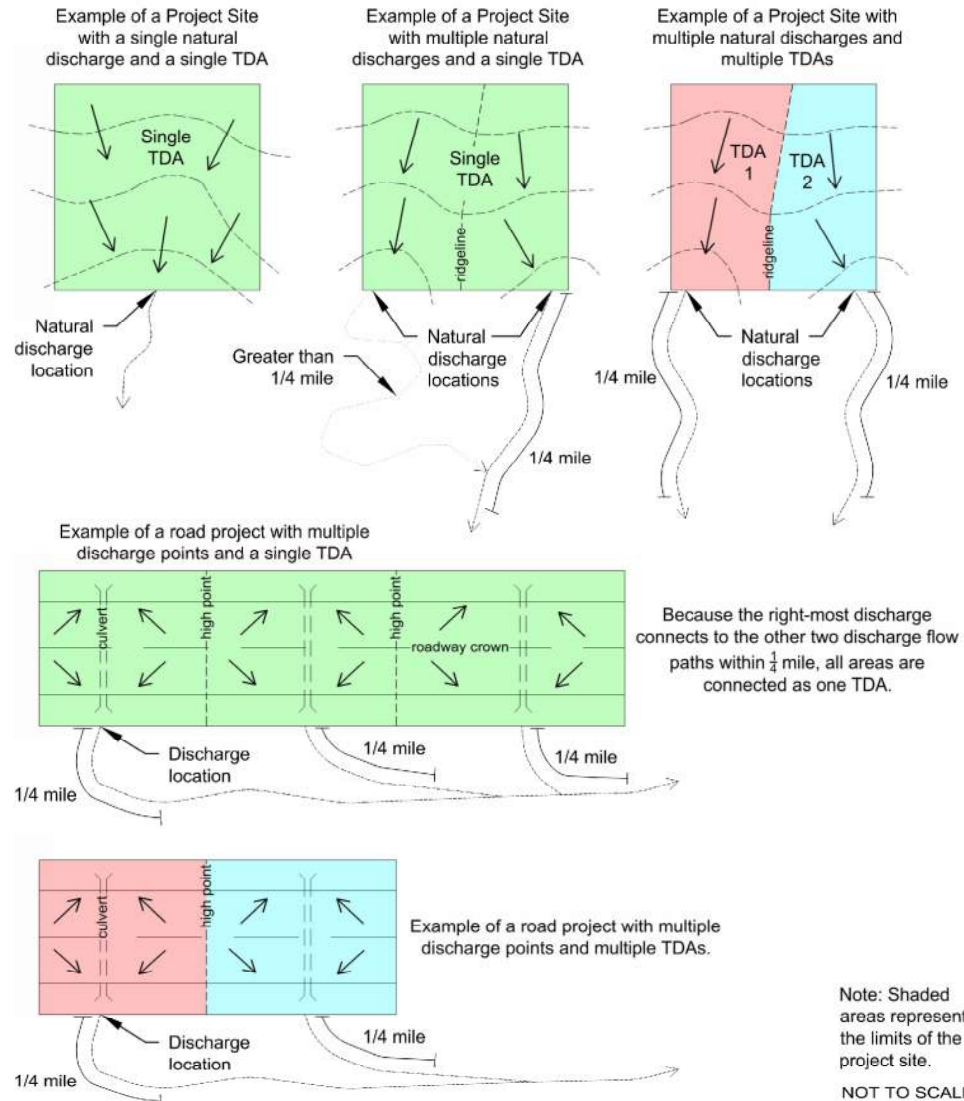


New Hard Surface

A surface that is:

- Upgraded from dirt to gravel, a bituminous surface treatment (“chip seal”), asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure; or
- Upgraded from gravel to chip seal, asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure; or
- Upgraded from chip seal to asphalt, concrete, permeable pavement, a structure with a vegetated roof, or an impervious structure.

Note that if asphalt or concrete has been overlaid by a chip seal, the existing condition should be considered as asphalt or concrete.



Ecology's Significant Mandated Changes

4. Wetland Hydroperiod Protection Method 2

Wetland Hydroperiod Protection Method 2: The hydroperiod protection requirements for Criteria 2 in Method 2 have been updated. The updates include an increase from 15% to 20% allowable monthly discharge volume deviations during October, November, and December, and an “allowable exception” for summer months.

See **I-C.4 Wetland Hydroperiod Protection** in the 2024 SWMMWW.

- Applies to:
 - Wetland Hydroperiod Protection, Method 2, Site Discharge Modeling
- Located at:
 - CCSM Appendix 1-H, Wetland Protection Guidelines, I-H.4, Wetland Hydroperiod Protection

Ecology's Significant Mandated Changes

5. Runoff Treatment Performance Goal Threshold

Runoff Treatment Performance Goal Thresholds: Some thresholds for Runoff Treatment BMP types (i.e. basic, metals, oil, and/or phosphorus) have been updated for statewide consistency and/or to reflect updated requirements.

An example of an edit to the Runoff Treatment Performance Goal Thresholds that reflects an updated requirement is identifying Light Rail guideways as a Site type that requires metals treatment.

See **Section 4.6** of Appendix 1.

Ecology's Significant Mandated Changes

5. Runoff Treatment Performance Goal Threshold - Metals

- Applies to:
 - Uses/activities requiring Metals Treatment
 - Within UGB, roads with ADT 7,500 or greater
 - Outside of UGB, roads with ADT 15,000 or greater
 - Light rail
 - Parking, fueling, and transit centers
 - Phosphorous Treatment geographic requirements
- Located at:
 - CCSM 3.2.1, Step 5, Determine if Metals Treatment is Required

Ecology's Significant Mandated Changes

5. Runoff Treatment Performance Goal Threshold - Phosphorous

- Applies to:
 - Phosphorous Treatment geographic requirements
- Located at:
 - CCSM 1.5.6.1, Thresholds for Minimum Requirement #6: Runoff Treatment
 - CCSM 3.2.1, Step 4, Determine if Control of Phosphorous is Required

Ecology's Significant Mandated Changes

6. Source Control BMPs – PCB E

Source Control BMPs - PCB Edits: The following Source Control BMPs have been updated to include guidance for preventing pollution from PCBs in building materials:

- S424 BMPs for Roof / Building Drains at Manufacturing and Commercial Buildings
 - S431 BMPs for Washing and Steam Cleaning Vehicles / Equipment / Building Structures
 - S438 BMPs for Construction Demolition
 - S451 BMPs for Building Repair, Remodeling, Painting, and Construction
- Applies to:
 - Source Control BMPs for maintaining, cleaning, repairing, and demolishing buildings that may have PCBs. Buildings from 1950 to 1980.
 - Located at:
 - CCSM Book 3, variety of source control BMPs

Ecology's Significant Mandated Changes

7. High Performance Bioretention Soil Mix

Bioretention: The guidance within **BMP T7.30: Bioretention** has been updated to include the option to use the High Performance Bioretention Soil Mix (HPBSM). The design guidance was also updated to clarify the design infiltration rate to use for all three bioretention soil mix options.

See **BMP T7.30: Bioretention** in the 2024 SWMMWW.

- Applies to:
 - BMP T5.14B, Bioretention
- Located at:
 - CCSM Book 2, BMP T5.14B

Ecology's Significant Mandated Changes

7. High Performance Bioretention Soil Mix

- Can be used near phosphorous sensitive waterbodies and as phosphorous control
- Three layers:
 - Compost Surface Layer
 - Primary Layer
 - Polishing Layer
- Three configurations
 - Type 1 – only Primary layer – Basic and Metals
 - Type 2 – Primary and Polishing layers – Basic, Metals, Phosphorus
 - Type 3 – all Layers – Basic, Metals, Phosphorous + improved success of plantings



Guidance on using new high performance bioretention soil mixes

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<https://apps.ecology.wa.gov/publications/documents/2110023.pdf>

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7. High Performance Bioretention Soil Mix

- HPBSM Compost Surface Layer:
 - 2" in depth
 - Compost must meet the "Compost for Default BSM" specifications
 - Do not use the HPBSM Compost Surface Layer without the HPBSM Polishing Layer.
- HPBSM Primary Layer:
 - 18 inches in depth
 - 70% sand, 20% coir, and 10% high carbon wood ash (biochar) by volume
- HPBSM Polishing Layer:
 - 12 inches in depth
 - 90% sand, 7.5% activated alumina, and 2.5% iron aggregate by volume
 - HPBSM Polishing Layer, when used, is intended to treat immediately after the HPBSM Surface and Primary Layers, either by being located directly beneath those layers or directly in-series.

DEAB next steps

- We will send you:
 - Excerpts of strikeout and underline documents
 - A table of changes
- Submit questions about Ecology's Significant Mandated Updates **by November 27**
 - rod.swanson@clark.wa.gov
- December DEAB meeting – we will review a portion of additional code/manual changes requested by Clark County
- January DEAB meeting – (tentatively) infiltration policy assessment

Questions?