

City of Tumwater Drainage Design and Erosion Control Manual

July 1, 2022 Updates

(National Pollutant Discharge Elimination System Permit Phase II Appendix 10)

Find the revised manual here:

<https://www.ci.tumwater.wa.us/departments/public-works/utilities/stormwater/plans-program-guidance/drainage-design-and-erosion-control-manual>

Ecology determined that the following list shall be used to amend any enforceable documents, including codes, ordinances, director's rules, public rules and/or manuals, to be functionally equivalent to Appendix I in the Western Washington Phase II Municipal Stormwater Permit (effective August 1, 2019) and the required portions of Ecology's 2019 Stormwater Management Manual for Western Washington (SWMMWW).

1. Text throughout the SWMMWW has been updated to require continuous simulation models that include:

- The ability to directly model BMPs that may be used in LID applications, such as bioretention, permeable pavement, and green roofs.
- 15-minute time steps
- Incorporation of the van Genuchten algorithm to model bioretention.

(Vol. III)

2. **Replaced Hard Surfaces Redevelopment Threshold:** The Minimum Requirement Thresholds for non-road related commercial or industrial redevelopment projects have been updated to require the project proponent to compare the value of the proposed improvements to the value of the Project Site (the limits of disturbance) improvements, rather than the Site (the entire parcel) improvements.

(To be included in Vol. III by Transportation and Engineering Department)

3. **Equivalent Areas:** The Redevelopment Project Thresholds have been updated to allow a project proponent to provide Stormwater Management BMPs for an equivalent area. The equivalent area may be on-site, or off-site if the area drains to the same receiving water and the guidance for in-basin transfers is followed.

(To be included in Vol. III by Transportation and Engineering Department)

4. **Minimum Requirement 2:** The 13 Elements in Minimum Requirement 2 (Construction Stormwater Pollution Prevention) have been updated to incorporate changes that were made to the 2015-2020 Construction Stormwater General Permit.

- a. *SWPPP Element #3 Control Flow Rates (Vol. II pg. 2-14) - Provide and maintain natural buffers around surface waters, direct stormwater to vegetated areas to increase sediment removal and maximize stormwater infiltration, unless infeasible.*
 - b. *SWPPP Element #9 Control Pollutants (Vol. II pg. 2-20)*
 - i. *Include Vol. IV Section A2.4 Mobile Fueling of Vehicles and Heavy Equipment as a suggested BMP*
 - ii. *Require spill kits with trained personnel to conduct re-fueling operations.*
 - iii. *Washout of small concrete handling equipment into pre-formed area awaiting concrete where it will not contaminate surface or ground water.*
 - iv. *Include food grade vinegar to adjust pH.*
 - v. *Wastewater management for water-based shaft drilling for construction activities.*
 - c. *SWPPP Element #11 (Vol. II pg. 2-23) - remove language regarding "Some temporary Construction SWPPP BMPs are biodegradable and designed to remain in place following construction, such as compost socks."*
 - d. *SWPPP Element #12 (Vol. II pg. 2-27) - Define "significant amount": Appropriate BMPs or design changes shall be implemented as soon as possible whenever inspection and/or monitoring reveals that the BMPs identified in the Construction SWPPP are inadequate, due to the actual discharge of/or potential to discharge ~~a significant amount~~ of any pollutant that will cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), groundwater quality standards (Chapter 173-200 WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington. (40 CFR Part 131.45).*
5. **Minimum Requirement 5:** Minimum Requirement 5 (On-Site Stormwater Management) has been updated to require BMP T5.13 (Soil Quality and Depth) when choosing to use the LID Performance Standard to meet Minimum Requirement 5 for Minimum Requirement 1-5 projects.
Minimum Requirement #5 already includes post construction soil quality and depth as a required BMP. See Vol. V Chapter 6. (Volume 1 pg. 2-17)
6. **Minimum Requirement 7:** Minimum Requirement 7 (Flow Control) has been updated to ensure that a TDA discharging to a marine waterbody meets all exemption requirements before it can be determined to be Flow Control exempt.
Does not apply, no discharges to marine waters within the City of Tumwater.
7. **Concrete Washout BMP:** BMP C154 (Concrete Washout Area) has been updated to clarify that auxiliary concrete truck components and small concrete handling equipment may be washed into formed areas awaiting concrete pour, while concrete truck drums must be washed either off-site or into a concrete washout area.

Updated in Vol II pg. 3-62, BMP C154 and Vol. IV pg. 4-34 and 4-37, Section A3.

8. **Source Control BMPs:** Volume IV (Source Control BMP Library) has been updated with Source Control BMPs for activities not listed in previous versions of the manual. The new activities with Source Control BMPs are:

- S434 BMPs for Dock Washing *BMP A7.17 (new)*
- S441 BMPs for Potable Water Line Flushing, Water Tank Maintenance, and Hydrant Testing *BMP A7.18 (new)*
- S435 BMPs for Pesticides and an Integrated Pest Management Program *BMP A3.11, A3.6, S.8 6.5*
- S444 BMPs for the Storage of Dry Pesticides and Fertilizers *BMP A4.10*
- S449 BMPs for Nurseries and Greenhouses *BMP A3.12 (new)*
- S450 BMPs for Irrigation *BMP A3.13 (new)*
- S445 BMPs for Temporary Fruit Storage *BMP A4.3*
- S439 BMPs for In-Water and Over-Water Fueling *BMP A2.5 (new)*
- S436 BMPs for Color Events *BMP A7.18 (new)*
- S438 BMPs for Construction Demolition *BMP A5.1*
- S440 BMPs for Pet Waste *BMP 6.8*
- S442 BMPs for Labeling Storm Drain Inlets On Your Property *Appendix IV-D*
- S443 BMPs for Fertilizer Application *BMP A3.6*
- S446 BMPs for Well, Utility, Directional and Geotechnical Drilling *BMP A3.14 (new)*
- S447 BMPs for Roof Vents *BMP A7.19 (new)*
- S451 BMPs for Building, Repair, Remodeling, Painting, and Construction *BMP A5.2*
- S452 BMPs for Goose Waste *BMP A7.20 (new)*

9. **Wetlands Guidance:** Appendix I-C (Wetland Protection Guidelines) and Minimum Requirement 8 (Wetlands Protection) have been updated to require monitoring and modeling of high value wetlands, if the project proponent has legal access to them. The 2014 wetland guidance is retained, but refined, for modeling requirements for lower value wetlands (and high value wetlands that the project proponent does not have legal access to).

(Vol. I pg. 2-30 through 2-32– Minimum Requirement #8) Updated with flow chart and reference to Appendix I-C in the 2019 SWMMWW.

Other Drainage Design and Erosion Control Manual updates:

10. **Stormwater Bonds:** *Vol I Ch. 2.4.11 (pg. 2-34): Stormwater Bond amount changed from 15% to 25%*

