

Executive Summary of the 2019 Revisions

The Stormwater Management Manual for Western Washington (SWMMWW) provides guidance on the measures necessary to control the quantity and quality of stormwater. Local municipalities use this manual to set stormwater requirements for new development and redevelopment projects. Land developers and development engineers use this manual to design permanent stormwater control plans, create construction stormwater pollution prevention plans, and determine stormwater infrastructure. Businesses use this manual to help design their stormwater pollution prevention plans.

The greatest use of the SWMMWW has been through National Pollutant Discharge Elimination System (NPDES) stormwater permits. The Municipal Stormwater General Permits for western Washington incorporate and reference the SWMMWW. The Industrial Stormwater General Permit, Construction Stormwater General Permit, Boatyard General Permit, and the Sand and Gravel General Permit reference the SWMMWW. Since 2005, Ecology has reissued or issued for the first time all of these NPDES stormwater permits. The 2019 revisions to the SWMMWW will continue to help permittees comply with these permits.

Types of Revisions

Usability Enhancements

The focus of the 2019 update was to enhance the usability, which will result in improved implementation of the stormwater permits that rely on this guidance. Enhancements include:

- Fully embracing the online user (maintain the interactive online format)
- Consolidating repetitive information
- Revising text for clarity
- Reordering sections for a better flow of concepts

Significant Changes

Ecology also identified the following changes that must be made in order to continue to provide the best guidance available:

1. **Continuous Simulation Modeling:** 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.
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.

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.
4. **Minimum Requirement 2:** The 13 Elements in [I-3.4.2 MR2: Construction Stormwater Pollution Prevention Plan \(SWPPP\)](#) have been updated to incorporate changes that were made to the 2015-2020 Construction Stormwater General Permit.
5. **Minimum Requirement 5:** [I-3.4.5 MR5: On-Site Stormwater Management](#) has been updated to require [BMP T5.13: Post-Construction Soil Quality and Depth](#) when choosing to use the LID Performance Standard to meet Minimum Requirement 5 for Minimum Requirement 1-5 projects.
6. **Minimum Requirement 7:** [I-3.4.7 MR7: 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.
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.
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](#)
 - [S441 BMPs for Potable Water Line Flushing, Water Tank Maintenance, and Hydrant Testing](#)
 - [S435 BMPs for Pesticides and an Integrated Pest Management Program](#)
 - [S444 BMPs for the Storage of Dry Pesticides and Fertilizers](#)
 - [S449 BMPs for Nurseries and Greenhouses](#)
 - [S450 BMPs for Irrigation](#)
 - [S445 BMPs for Temporary Fruit Storage](#)
 - [S439 BMPs for In-Water and Over-Water Fueling](#)
 - [S436 BMPs for Color Events](#)
 - [S438 BMPs for Construction Demolition](#)
 - [S440 BMPs for Pet Waste](#)
 - [S442 BMPs for Labeling Storm Drain Inlets On Your Property](#)

- [S443 BMPs for Fertilizer Application](#)
 - [S446 BMPs for Well, Utility, Directional and Geotechnical Drilling](#)
 - [S447 BMPs for Roof Vents](#)
 - [S451 BMPs for Building, Repair, Remodeling, Painting, and Construction](#)
 - [S452 BMPs for Goose Waste](#)
9. **Wetlands Guidance:** [Appendix I-C: Wetland Protection Guidelines](#) and [I-3.4.8 MR8: 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).

Other Updates

Other updates include:

- Incorporation of UIC Program guidance. See [I-4 UIC Program](#).
- Expanded guidance for regional facilities. See [Appendix I-D: Regional Facilities](#).
- Guidance for stormwater control transfer programs. See [Appendix I-E: Stormwater Control Transfer Program](#).

How to Find Corrections, Updates, and Additional Information

With a publication of this size and complexity there will inevitably be errors that must be corrected and clarifications that are needed. There will also be new information and technological updates.

Ecology intends to incorporate errata changes within the text of the interactive online version of the 2019 SWMMWW. Other updates, such as new technical information, FAQs, and/or training videos, may be posted as additional documents in the navigation pane of the interactive online manual, but will not be incorporated within the manual text until Ecology officially updates the publication.

Ecology will not use the interactive online version to make revisions in key policy areas – such as the thresholds and minimum requirements in Volume I. Please check the interactive online version periodically for corrections and updates.

Public Involvement Leading Up to the 2019 SWMMWW

Ecology provided public involvement opportunities and received public comments in preparation of the 2019 SWMMWW through individual user feedback, listening sessions, meetings with experts in selected fields, a preliminary draft public comment period, and a formal draft public comment period.

- **Individual User Feedback**

Since the release of the 2014 SWMMWW, Ecology has collected feedback in the form of emails and phone calls from individual manual users. Ecology took note of common questions, and has provided clarification in the edits.

- **Listening Sessions**

In the Spring of 2017, Ecology hosted listening sessions across western Washington to gather input for preparing to reissue the 2019 Municipal Stormwater permits and update the Manual. Participants largely agreed that the Manual update should not include substantial changes to the technical requirements, but were thankful for the efforts suggested by Ecology to enhance the usability of the manual.

- **Meetings With Experts**

In a few cases, Ecology met with internal and external experts to discuss needed changes to the Manual. For example, Ecology held meetings to discuss the updates to [Appendix I-C: Wetland Protection Guidelines](#).

- **Preliminary Draft Public Comment Period**

In the Fall of 2017, Ecology provided a preliminary draft package of the 2019 SWMMWW for an informal public review. Ecology considered the comments received while finalizing the formal draft.

- **Formal Draft Public Comment Period**

In the Summer of 2018, Ecology provided a formal draft package of the 2019 SWMMWW for a 120 day public comment period. Ecology considered the comments received during the comment period and made the final changes to the 2019 SWMMWW. Ecology has issued a response to comments with the final version of the 2019 SWMMWW.