



Meeting Minutes

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Prepared for: City of Salem
Project Title: Design Standards and Code Review
Project No.: 180289

Purpose of Meeting: Summary of Admin Rules updates per SWAG **Date:** December 17, 2024
Meeting Location(s): City of Salem Public Works
Summary Prepared by: Angela Wieland, BC; Anita Panko & Julia Gonzalez, City of Salem

SWAG Attendees:

Josh Wells, Westech Engineering	Natalie Janney, Multi-tech Engineering
Ken Bierly, Glenn-Gibson Watershed	Rick Massey, Rick Massey Construction
Tyler Roth, AKS Engineering	Matt Knudson, Marion County
Linda Nishioka, City Council	Bill Lawyer, City of Keizer
Gene Bolante, Studio 3 Architecture	

Summary

A total of seven Stormwater Advisory Group (SWAG) meetings and presentations were held from March to July 2024. SWAG Meeting #1 provided an overview of the National Pollutant Discharge Elimination System (NPDES) municipal separate storm sewer (MS4) permit drivers prompting review and update of the Salem Revised Code (SRC) and Administrative Rule, Chapter 109, Division 004 (Stormwater Standards). The remaining meetings focused on review of policies, checklists, procedures and technical guidelines and needs for inclusion in the updated Stormwater Standards.

During each SWAG meeting, information was solicited from the SWAG related to recommendations or best practices observed in other jurisdictions.

The annotated outline of the updated Stormwater Standards was presented to the SWAG during SWAG Meeting #4 (6-3-24). The public review draft of the updated Stormwater Standards was provided to the SWAG in advance of SWAG Meeting #6. Specific comments on the draft Stormwater Standards from the SWAG were received during SWAG meetings #6 and #7; however, feedback on specific elements of the draft Stormwater Standards were provided by the SWAG during both meeting discussions and emailed comments throughout the duration of SWAG meetings.

Stormwater Standards Updates

Modifications (policy and procedural) that were incorporated into the updated Stormwater Standards due to SWAG member comments and feedback are summarized below. Policies and procedure updates discussed over a series of SWAG meetings do not have single, specific meetings referenced:

1. Definitions (see Administrative Rules, Chapter 109, Division 100)

- Updated definitions of new impervious and replaced impervious to provide clarity (SWAG Meeting #4).
- Added definitions to align more directly with NPDES MS4 permit (SWAG Meeting #4)

2. General Modifications (applicable throughout the SWAG meetings)

- Added clarification around the use and application of “measured” versus “design” infiltration rates.
 1. Updated City policy to consistently require stormwater facility sizing based on a “design” infiltration rate, which applies a factor of safety to the “measured” infiltration rates.
 2. Clarifies when infiltration-based stormwater facilities may be sized exclusively to manage the water quality design storm in accordance with the NPDES MS4 permit requirements.
- Included a flow control exemption for large streams.

3. Site Assessment and Preliminary Stormwater Report requirements (Section 4.3 and Appendix 4A)

- Maintained use of the “Area to Set Aside for Stormwater Facilities” instead of mandating infiltration testing, preliminary stormwater facility sizing, and submittal of a Preliminary Engineering Report at Land Use.
- Maintained 10% of the contributing impervious area as the “Area to Set Aside for Stormwater Facilities”, instead of adjusting to 15-20% as initially proposed following review of recently constructed stormwater facility sizes that did not trigger design exceptions for water quality and flow control). Supporting information provided by the SWAG helped inform the City’s decision to maintain the 10% metric. (SWAG Meeting #3)
- Deferred landscaping plan submittal until after preliminary approval of stormwater facilities (SWAG Meeting #4)
- Removed requirement for an Engineers Final Statement with final design submittal requirements. (SWAG Meeting #4)

4. Use of Simplified Method for Stormwater Facility Sizing (Section 4.5.b.1)

- Included estimated design infiltration rates on the Simplified Sizing Form based on NRCS data, for use by applicants at land use if infiltration testing is not possible/ available yet.

5. Use of Engineered Method for Stormwater Facility Sizing (Section 4.5.b.2 and Appendix 4D)

- Removed requirement to calculate separate runoff hydrographs for 1) total project site area and 2) project impervious area only and use the largest flow of the two for design. (SWAG Meeting #6)
- Clarified the time of concentration calculation assumptions and equations specific for the calculation of pre-developed flow rates (detailed in Appendix 4D) (SWAG Meeting #7).

6. Infiltration Infeasibility Criteria (Table 4-1):

- Adjusted the prohibition of infiltration facilities on steep slopes from 25% to 20% (SWAG meeting #5 and 6).
- Included development of a geological investigation (as opposed to a more formal Geotechnical Report) to support infiltration-based design assumptions (SWAG Meeting #6).
- Allowed use of well logs to inform seasonal high groundwater elevations (SWAG meeting #6).
- Included additional specification related to how the groundwater separation distance must be measured (i.e., measured from the designed bottom of the drain rock layer of the facility) (SWAG Meeting #4 and 5).

7. Facility Design Criteria and Applications (Section 4.6)

- Adjusted specific stormwater facility design criteria to help optimize stormwater facility sizing (SWAG Meeting #2 and #3):
 1. Permitted use of side slope and facility bottom area to accommodate infiltration and retention, reducing infiltration-based stormwater facilities' size (i.e., raingardens).
 2. Updated stormwater facility drawdown time from 30 hours to 48 hours, reducing the size of all stormwater facilities (SWAG Meeting #2 and 3).
 3. Increased the assumed infiltration rate through growing media from 2" to 3"/hour, reducing stormwater facility sizing when use of an underdrain is required (i.e., partial infiltration or lined facilities) (SWAG Meeting #2 and 3).
- Allowed pervious pavement to meet water quality and flow control requirements without mandating use of an underdrain.
- Allowed pervious pavement applications on slopes greater than 6% with demonstration of adequate conveyance and storage in the design (following Public Comments).
- Removed/reduced setback requirements for lined stormwater facilities and detention ponds from adjacent properties, building foundations, and/or property lines (SWAG Meeting #7).
- Updated requirements for walls in stormwater facilities to 1) increased the allowable exposed depth from 4' to 6'; 2) removed the height limitation for perimeter walls surrounding the facility; and 3) specified that perimeter walls shall not extend more than 75% of the facility (SWAG Meeting #7 and following Public Comments).
- Maintained use of parking lot detention to serve as an overflow area during the 10-year design storm event (SWAG Meeting #7 and following Public Comments).

8. Landscaping Stormwater Requirements (Appendix 4B)

The following changes were made in response to written comments received by SWAG committee members after SWAG Meeting #4:

- Relabeled groups of plants in Table 4B-2 to provide consistency and reduce confusion. Previously categories included Grasses and Groundcover, Forbs, Ferns, Shrubs, Large Shrubs/Small Trees, Conifer and Evergreen Trees, and Deciduous Trees. New categories separate Grasses/Sedges/Rushes from Groundcover and combine Ferns with Forbs.
- Rearranged plants listed in the shrub and large shrub/small tree categories of Table 4B-2 for consistency. Shrubs are considered those with a mature height of 6 feet or less, large shrubs/small trees was anything over. Added a 20-foot limit for Small Trees category and moved anything taller to their specific tree category.
- Clarified that planting requirements listed for woody plants are a menu of options.
- Changed language describing requirements for plantable area remaining after shrub/tree planting to add clarity, reduce confusion, and maintain consistency with Table 4B-2.
- Defined plantable area (total facility area minus areas that cannot be planted such as outfalls, beehive inlet grates, check dams, etc.) to clarify planting coverage requirements.
- Added seeding option for dry detention ponds and filter strips, reducing confusion about where seeding can be used.
- Removed Oregon Ash Tree and Bracken Fern from Table 4B-2 and added new plants in most categories to increase variety.
- Clarified descriptions of Planting Zones 1-3 and added a new Figure illustrating zone delineations. For Zone 1, also added language to avoid planting trees and large shrubs in this zone.