

Document Being Reviewed (Clean SWMM, Edited SWMM, Table 10.1, Table 10.2, Other)	Document Reference (Volume, Section, Page Number, Etc.)	Reviewer Comment	Proposed Language Change (if any)	City of Tacoma Response to Comment
Edited SWMM	Volume 1, Chapter 3, Section 3.3.3, Change of Use	Consider adding the proposed language to provide clarity.	<p>Changes in types of hard surfacing for road-related redevelopment projects are not considered new hard surfaces in determining thresholds for applying the minimum requirements. Changes in types of hard surfacing for road-related redevelopment projects are considered redeveloped hard surfaces in determining thresholds for applying the minimum requirements when such surfaces meet the definition of redeveloped hard surfaces. Removal and replacement of one type of existing hard surface with a different type of hard surface is not considered new hard surfaces for determining thresholds for applying the minimum requirements.</p> <p>However, for road-related redevelopment projects:</p> <ul style="list-style-type: none"> <li>• If the redeveloped hard surfaces</li> </ul>	The proposed language is not accurate. Changes in type of hard surfacing - for example from gravel to asphalt or concrete do trigger the thresholds. This section is meant to provide the City with means to provide protection to receiving waterbodies only if the use of an area of a site is changed - for example a building is torn down and now the area if used by vehicles.

			<p>result in the post-project pollution-generating hard surface being 50% more than the amount of currently existing pollution-generating hard surface; and,</p> <ul style="list-style-type: none"><li>• If the redeveloped post-project pollution-generating hard surface discharges into a downstream waterbody with a documented water quality problem; and,</li><li>• If the post-project pollution-generating hard surface would contribute the same type of pollutants that are in the waterbody with the documented water quality problem;</li></ul> <p>then Environmental Services will review the project to determine if the change in pollution-generating hard surface will require water quality treatment even if</p>	
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			<p>otherwise exempt from Minimum Requirement 6.</p> <p>If it is determined that water quality treatment is required, the water quality treatment would be sized for the change in pollution-generating hard surface. The level of treatment and types of BMPs would be determined as if the change in pollution-generating hard surface was newly created hard surface.</p>	
Edited SWMM	Volume 1, Chapter 3, Figure 1-7, Road-Related Redevelopment Flowchart	Consider adding the following note.	7. See Volume 1, Chapter 3, Section 3.3.3, Change of Use, for further requirements.	Thanks for the suggestion – the City will consider adding language to the flowcharts.
Clean SWMM	Table 1-1	Table is really clear and understandable. Nice job clarifying this requirement!		Thanks.
Clean SWMM	Section 3.4.5.2	Clarify what timestep(s) should be used for LID performance standard modeling.		15-Minute Timesteps. The City attempted to make this clarification in all sections related to modeling.
Edited SWMM	Section 3.4.6.2	<p>Move this statement under oil control into general Treatment Type Requirements paragraph for clarity</p> <p>“Projects required to provide oil control must also provide</p>	<p>Rephrase under first paragraph:</p> <p>“Treatment types including oil control, phosphorous treatment, enhanced treatment and/or basic treatment</p>	Thanks - sentence will be moved for clarity. Additional language has been added to Treatment Type Requirement to address suggestion to

		phosphorous, enhanced, or basic treatment (as applicable).”	determined to be applicable to the projects TDA(s) must be provided.”	rephrase first paragraph.
Edited SWMM	Section 3.4.7.3.1	Clarify Ecology approved continuous simulation model. Which models specifically?		The City is defaulting to Ecology approved continuous simulation models and linking to their website. Currently WWHM and MGS Flood (with caveats) are allowed.
Edited SWMM	V1 Section 3.3.10	It appears that the watershed specific requirements section has been removed. This section was very helpful in outlining specific requirements.	Suggest adding this into Volume 2 of the new manual.	It was decided to remove this section because this section was not accurate in every scenario which was misleading.
Edited SWMM	Glossary	Appreciate the clarifications to the glossary and added terms.		Thanks
Edited SWMM	V13	We appreciate the idea of templates for SSP, SWPPP, and other documents. That will greatly increase the efficiency of design and design review!  Did you say perhaps there would be long form templates in the works?		Thanks and Yes. The City plans on having Stormwater Site Plan and Construction Stormwater Pollution Prevention Plan templates and training on how to complete the templates. It is anticipated that training will occur in June - 2021.
Clean SWMM	Gen	Appreciate the organization of the manual. It is logical and easy to find what you need.		Thanks though based upon further feedback some sections will be consolidated to reduce redundancy.

Clean SWMM	Gen	Please add linked table of contents back to each volume and one for overall manual. This has been very helpful in navigating the manual.		Yes, the final will have Table of Contents for Overall and Each Chapter.
Clean SWMM	V 5 Section 1.2.1.3	Clarify "Proprietary Devices Approved for Oil Control". Confirm the intent is approved by ecology.	"...Approved By DOE TAPE Program..."  Or similar.  This may need to be an overall statement. Per Ecology, Proprietary devices should be approved by DOE TAPE.	Yes, this is meant to only apply to TAPE approved technologies. The City will adjust language per suggestion to make this clear throughout the document.
Clean SWMM	V 5	Is there a difference between emerging technologies and proprietary devices?	Recommend consistent language for use of "approved" alternative technologies for all types of treatment.	The intent is the use of technologies approved through the TAPE process. The City will update for consistency throughout.
Clean SWMM	Gen	Suggest providing a spreadsheet for basin analysis to ensure designers are giving similar input for design review.		Thanks - the City will work to create some sort of analysis document. The document may not be complete before the July 1, 2021 date.
Edited SWMMM	General	Provide Table of Contents.		Yes, the final will have Table of Contents for Overall and Each Chapter.
Edited SWMMM	General	What does the green highlight indicate? It is not described in the color code sheet.		These were items that the City needed to come back to later like small formatting things or figures that needed updating.
Edited SWMMM	General	Are infiltration systems (trenches, chambers) allowed in the R/W for		At this time, there are no outright prohibitions for infiltration trenches

		public road runoff where the road receives more than very low traffic volume and more than very low truck traffic?		in the ROW though each project is assessed on a case by case basis.
Edited SWMMM	Volume 1, Page 1-59	Revise the wording above section 3.4.9.1 to state "do not include stormwater facilities that will be maintained by the City of Tacoma in the Operation and Maintenance Manual" (or similar wording). The reasons for this revision is to not submit unnecessary information and to minimize review time.		Though the City does not require applicants to submit an O&M for stormwater facilities that will be maintained by the City of Tacoma, an applicant can submit one if there are particular circumstances that warrant the submittal. Thanks for suggestion but no changes are proposed at this time.
Edited SWMMM	Volume 2, Page 2-53, Table 2-8	Revise the text for the correct location for the compost specifications.		Thanks. At the draft stage we had not verified that all references were accurate.
Edited SWMMM	Volume 2, Page 2-59, Figure 2-4	Revise the figure so text is not compressed horizontally.		The City intends to update this figure for readability. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-64	Revise the text that is near the bottom of the page for the correct location for the compost specifications.		Thanks. At the draft stage we had not verified that all references were accurate.
Edited SWMMM	Volume 2, Page 2-73, Figure 2-6			The City intends to update this figure for readability. This update

		Revise font so that the letters "M", "N", "V", and "W" print properly.		may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-75, Figure 2-7	Indicate each terrace being 10' min and slope to adequate outlet.		The City intends to update this figure. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-112, Figure 2-15	Revise font so that the letters "M", "N", and "V" print properly		The City intends to update this figure for readability. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-151, Figure 2-28	Revise font so that the letters "M", "N", "V", and "W" print properly.		The City intends to update this figure for readability. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-156, Figure 2-30, 2-31	Revise font so that the letters "M", "N", "V", and "W" print properly.		The City intends to update this figure for readability. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 2, Page 2-157, Figure 2-32	Revise font so that the letters "M", "N", "V", and "W" print properly.		The City intends to update this figure for readability. This update may not occur before July 1, 2021.
Edited SWMMM	Volume 8, Page 8-5	If a project will require one year of wetland monitoring to obtain water level data and subsequent analysis, is it the City of Tacoma's intent to still allow development applications (short plat, preliminary plat, etc) to be processed while data is being collected?		This is a policy decision that the City has not made at this point. The decision will be made before the SWMM is effective.

Edited SWMMM	Volume 8, Page 8-7	It would be very helpful to provide an example project showing the calculations for both Method I and Method 2.		The City is hoping to have ECY staff provide training to both City staff and the development community as this guidance is new.
Edited SWMMM	Volume 9, Page 9-2	Revise the wording at the bottom of the sheet to "An applicant will not be required <del>does not have</del> to submit...". The reason for this revision is to not submit redundant information and minimize review time.		Though the City does not require applicants to submit an O&M for stormwater facilities that will be maintained by the City of Tacoma, an applicant can submit one if there are particular circumstances that warrant the submittal. Thanks for suggestion but no changes are proposed at this time.
Edited SWMMM	Volume 10, Page 10-2, Table 10-1	Add "None" under "Required Analysis" for "Any Size" increase in surface area.		Thanks - update will be made.
Edited SWMMM	Volume 10, Page 10-4	Delete "for" in the first sentence in the first paragraph "...not feasible <del>for</del> ..."		This whole sentence has been updated for clarity.
Edited SWMMM	Volume 10, Page 10-29	If this type of connection is allowed, manhole structures can be reduced and the number of structures needing maintenance can be reduced.		Catch basin to catch basins connections limit the ability for the City to maintain and access the system for inspection. On a case by case basis, the City does allow these connection types.
Edited SWMMM	Volume 11, Page 11-6, 11-7, 11-40, 11-55, 11-179, 11-206 11-266, 11-296	Revise the text reference for the correct location for the compost specifications.		Thanks. At the draft stage we had not verified that all references were accurate.



Edited SWMMM	Volume 11, Page 11-26	The first bullet on this page states "...Shall not be located upstream of septic systems unless..." From a review of WAC 246-272A-0210, the last row of the table applies to infiltration trenches and does not differentiate between an upgradient or downgradient criteria. Thus the minimum horizontal separation should be 10 feet (upstream or downstream).		The City will update guidance to be more consistent with WAC in regards to onsite septic systems.
Edited SWMMM	Volume 11, Page 11-30	Revise for grammar: " <del>Cleanout are</del> A cleanout is recommended..."		Grammar revision will be made.
Edited SWMMM	Volume 11, Page 11-32, 11-43, 11-62, 11-93, 11-102, 11-113, 11-145, 11-168, 11-180, 11-192, 11-194, 11-208, 11-214, 11-223, 11-235, 11-242, 11-276, 11-293, 11-294, 11-302, 11-310	Revise the text reference for the correct location for the dewatering requirements. Is it Volume 3 or Volume 4 of Volume 9 or some other location?		Thanks. At the draft stage we had not verified that all references were accurate.
Edited SWMMM	Volume 11, Page 11-54	Is the Coefficient of Curve formula missing any terms?		The values are not in the correct order but all the variable are there.
Edited SWMMM	Volume 11, Page 11-66	Revise for grammar near the top of the page: " <del>Cleanout are</del> A cleanout is recommended..."		Grammar revision will be made.
Edited SWMMM	Volume 11, Page 11-81	What are the requirements for "permeable aggregate"		The City has no formal guidance specific to base course

		for permeable interlocking concrete pavements and grid systems? If it is gravel, would the grid system be considered an impervious surface? See also the comment for Volume G, Page G-31.		requirements for PICP. Many PICP systems are proprietary and require specific aggregate types. Based upon the type of PICP system proposed, ES/SDG will confirm if the system is compliant with BMP L633.
Edited SWMMM	Volume 11, Page 11-88	Near the bottom of the page, revise the 2.2.2.5.9.5 reference to 2.5.4.5.4		Thanks. At the draft stage we had not verified that all references were accurate.
Edited SWMMM	Volume 11, Page 11-90	Section 2.5.4.5.4 references the "Low impact Technical Guidance Manual for Puget Sound" for examples and design recommendations for subsurface detention structures for permeable pavement. The reference notes "impermeable check dams" and figure 6.3.6 of the reference notes "check dam. non-permissive material". It would be helpful to provide additional guidance for examples/specifications for "impermeable check dams" and "non-permissive material".		The City of Tacoma will attempt to provide additional guidance.
Edited SWMMM	Volume 11, Page 11-143	For item 10, provide the BMP reference for Flow Spreaders.		Thanks. At the draft stage we had not verified that all

				references were accurate.
Edited SWMMM	Volume 11, Page 11-146	Remove the reference to 3.7.2.7. since there are no design criteria at that location.		Thanks. At the draft stage we had not verified that all references were accurate.
Edited SWMMM	Volume 11, Page 11-146, 11-150	Remove the text "Table" for the reference to sections 3.7.2.4 and 3.7.2.7.		Thanks - typo will be fixed.
Edited SWMMM	Volume 11, Page 11-153 to 11-159, Figure 11-16 to Figure 11-22	The Notes section of the figures refer to "Structural Design Considerations" and other WSDOT items. Are these appropriate and applicable?		The figures will be updated.
Edited SWMMM	Volume 11, Page 11-160	In the first sentence under section 3.7.4.2, is the text "compostvblanket" correct?		No, typo will be fixed.
Edited SWMMM	Volume 12, Page 12-3 and 12-15	Consider deleting the precipitation values on page 12-3 and referencing the table on page 12-15 (or some other way to consolidate the information into one location).		Agreed - the City will remove redundant information.
Edited SWMMM	Volume 13, Page 13-8, 13-9	What is the intent of providing a map showing the downstream flowpath to Puget Sound? Is this map relevant to a project if the downstream flowpath is greater than 1/4 mile from Puget Sound?		The intent is to verify the first receiving waterbody on the flowpath. This can be obtained from the City tMap.

		Generally, runoff from a site gets to a conveyance system and the mapping for the conveyance system is shown on Tacoma DART mapping.		
Edited SWMMM	Volume 13, Page 13-13	Revise the wording below section 2.10.9 to state "do not include stormwater facilities that will be maintained by the City of Tacoma in the Operation and Maintenance Manual" (or similar wording). The reasons for this revision is to not submit unnecessary information and to minimize review time.		Though the City does not require applicants to submit an O&M for stormwater facilities that will be maintained by the City of Tacoma, an applicant can submit one if there are particular circumstances that warrant the submittal. Thanks for suggestion but no changes are proposed at this time.
Edited SWMMM	Volume 13, Page 13-20	The text below the heading "Required Drawings" indicates that the project drawings shall be stand-alone and not be included in the Stormwater Site Plan Report or Construction Stormwater Pollution Prevention Report and that the items described may be needed in addition to those required at <a href="http://tacomapermits.org">tacomapermits.org</a> . Chapter 3 of the City of Tacoma Right-of-Way Design Manual provides guidance and minimum standards for		The City will attempt to remove as much duplicity as possible. The Right of Way is only applicable to projects within the City ROW and does not extend to private properties in most cases so information must be retained in the SWMM.

		<p>development of construction plans. It is suggested that the requirements described in the draft manual be consolidated with Chapter 3 of the latest edition of the City of Tacoma Right-of Way Design Manual in order to minimize: duplication of requirements, conflicting requirements, and questions of interpretation. Then, the text of Volume 13 Chapter 4 of the draft manual can be replaced with a note to reference the latest edition of the Design Manual. If it is decided that the itemized text of Chapter 4 of the draft manual is to be retained, the text should be revised to eliminate duplication/conflicts and minimize questions of interpretation. In addition, the Introduction text of Chapter 3 of the Design Manual should be revised with a reference to additional project drawing requirements in the latest version of the Tacoma Storm Manual since the project</p>		
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		drawing requirements will be in two different documents.		
Edited SWMMM	Volume G, Page G-4	The definition of "Base flood" elevation notes that the datum is NGVD 83. Chapter 3 page 3-3 of the City of Tacoma Right-of-Way Design Manual indicates that all elevations are to be on the current City vertical datum of NGVD 29. Is this conflict to be resolved by a note wherever a base flood elevation is shown?		Yes, the City will attempt to eliminate any conflicts.
Edited SWMMM	Volume G, Page G-31	In the definition of "Impermeable Surface", a gravel road is noted as an example of an impervious surface. If gravel is used for a grid system for BMP L633, would the grid system be considered an impervious surface (see also the comment for Volume 11, Page 11-81).		Permeable pavements fall under the definition of hard surfaces, not impervious surfaces. A grid system meeting BMP L633 would be a permeable pavement.
Edited SWMMM	Volume G, Page G-44	To be consistent with BMP L633, include grid systems in the definition of "Permeable pavement".		The City will add PICP for clarity.
Edited SWMMM	Volume G, Page G-49	Is the reference to Volume 4 correct in the definition of "Recommended BMPs"?		Thanks. At the draft stage we had not verified that all references were accurate.

Edited SWMMM	Volume G, Page G-53	Would it be appropriate to include a definition for "SBUH"?		SBUH was removed from the SWMM based upon other comments.
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