

Ventura County Technical Guidance Manual (TGM) 2018 ERRATA Comments and Response

	TGM page	Technical Guidance Manual Comment	Response Approach
1	E-69 E-74 E-64 6-142	Equation for swale bottom-width, $b = (SQDF * n_{wq}) / (1.49y^{0.67}s^{0.5})$, 0.67 exponent should be 1.67 (Kirby); occurs in several places throughout the manual.	<ul style="list-style-type: none"> Swale bottom width equation in Appendix E has been changed. Swale bottom width equation in Section 6 has been changed.
2	E-43 to E-53 G-2 G-10	Need a sizing worksheet for INF-7 Bioinfiltration plus an Appendix G checklist (Kuhlman).	<ul style="list-style-type: none"> Sizing worksheet has been created from example INF-6 INF-7: Bioinfiltration has been added to Appendix G INF-7: Bioinfiltration checklist is a compilation of INF-6 and specific details from INF-7 summary
3		Need the INF-7 BMP added to the TGM Spreadsheet in the table on Step 5d (Kuhlman).	<ul style="list-style-type: none"> INF-7: Bioinfiltration has been added to the TGM Tool 2018 spreadsheet in Step 5d.
4	6-9	Page 6-9 - This detail under notes 6 references Figures 7-2 and 7-3 and under note 8 references Figure 2-4. I don't believe any of these references exist in the TGM. (Wendt).	<ul style="list-style-type: none"> References in Figure 6-2 notes changed to Figure 6-16 and Figure 6-18.
5	6-11	Page 6-11, Under section titled 'Additional Control Functions' - There is reference to 'Section 6.10.2 - Wet Retention Basins' that perhaps should be a reference to our 'TCM-2 Wet Detention Basin. I believe the 6.10.2 format is from some other manual. (Wendt).	<ul style="list-style-type: none"> The reference to the appropriate section has been updated as follows: “(see TCM-2: Wet Detention Basin).”

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6	6-15 to 6-17	<p>Page 6-15 and 6-16, Tables 6-2 and 6-3 - It might be helpful if the value assigned to 'high' 'Medium' and 'Low' concerns were included in the table. They are mentioned in the second bullet on the next page (6-17) but that isn't as helpful as having them on the table. (Wendt).</p>	<ul style="list-style-type: none"> • Safety factors for Table 6-2 and Table 6-3 have been added <ul style="list-style-type: none"> ○ High: <i>Factor Value</i> (v) = 3 ○ Medium: <i>Factor Value</i> (v) = 2 ○ Low: <i>Factor Value</i> (v) = 1 • An example for site soil variability has also been added to Table 6-2 for clarification. The examples are set to allow flexibility for the geotechnical engineer to provide a suitable assessment of the site. <p>Table 6-2: Suitability Assessment Related Considerations for Infiltration Facility Safety Factors</p> <table border="1"> <thead> <tr> <th>Consideration</th><th>High Concern</th><th>Medium Concern</th><th>Low Concern</th></tr> </thead> <tbody> <tr> <td>Site soil variability</td><td> <p>Highly variable soils indicated from site assessment.</p> <p><i>Example Guidance:</i></p> <p>Three or more soil units/layers with substantially different infiltration properties (i.e., different texture class) are present in the locations/strata where the BMP will infiltrate.</p> <p>or</p> <p>Limited soil borings are collected during site assessment (2 or less) near the BMP, resulting in uncertainty about soil variability.</p> </td><td> <p>Soil borings/test pits indicate moderately homogeneous soils</p> <p><i>Example Guidance:</i></p> <p>2 to 3 soil units/layers with substantially different infiltration properties are present in the locations/strata where the BMP will infiltrate</p> <p>and</p> <p>2 to 3 more borings are collected near the BMP to assess variability and define extents of units/layers.</p> </td><td> <p>Multiple soil borings/test pits indicate relatively homogeneous soils</p> <p><i>Example Guidance:</i></p> <p>Soils units/layers near the BMP have similar properties</p> <p>and</p> <p>3 or more borings are collected near BMPs to confirm homogeneity</p> </td></tr> </tbody> </table>	Consideration	High Concern	Medium Concern	Low Concern	Site soil variability	<p>Highly variable soils indicated from site assessment.</p> <p><i>Example Guidance:</i></p> <p>Three or more soil units/layers with substantially different infiltration properties (i.e., different texture class) are present in the locations/strata where the BMP will infiltrate.</p> <p>or</p> <p>Limited soil borings are collected during site assessment (2 or less) near the BMP, resulting in uncertainty about soil variability.</p>	<p>Soil borings/test pits indicate moderately homogeneous soils</p> <p><i>Example Guidance:</i></p> <p>2 to 3 soil units/layers with substantially different infiltration properties are present in the locations/strata where the BMP will infiltrate</p> <p>and</p> <p>2 to 3 more borings are collected near the BMP to assess variability and define extents of units/layers.</p>	<p>Multiple soil borings/test pits indicate relatively homogeneous soils</p> <p><i>Example Guidance:</i></p> <p>Soils units/layers near the BMP have similar properties</p> <p>and</p> <p>3 or more borings are collected near BMPs to confirm homogeneity</p>
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7		<p>Page 6-34, Figure 6-4 - There is a reference to '(See note 5)' in this figure but there are only 3 notes. (Wendt).</p>	<ul style="list-style-type: none"> • Changed to “SEE NOTE 3”. 								

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8	E-69 E-74 E-64 6-142	Page 6-139, Equation 6-28 and E-30 (page E-53) needs updating. I think this has been pointed out by others. (Wendt).	<ul style="list-style-type: none"> The equation on page E-64 has been updated to have the exponent value be 1.67 Exponent value equation 6-28 has been changed from 0.67 to 1.67.
9	E-33	Page E-33 - Is there a reason that the P_{design} is listed as 0.44 in/hr in step 2-5 but then changes to 0.375 in/hr in step 3-2? Seems like they should be consistent. (Wendt).	<ul style="list-style-type: none"> Appendix E, Section E.3 Step 3 has been changed to 0.44 in/hr and the corresponding result from Step 3 has also been changed to $d_{\text{max}} = 1.76$ ft
10	E-55	Page E-44 (vs Page 6-117) - Equation 6-25 (on page 6-117) and Equation E-27 (on page E-44), and the associated definitions of d-filtered have different 'should not exceed values'. One says, 'should not exceed the surface ponding depth' and the other says 'should not exceed half of the surface ponding depth' (Wendt).	<ul style="list-style-type: none"> Equation has been verified with the Washington Manual, the division by 2 is not needed and the definition reads: <i>“depth of water that maybe considered to be filtered during the design storm event (ft) for routing calculations; this value should not exceed surface ponding depth (d_p)”</i>
11	J-2 to J-3	Add an Appendix to incorporate the devices approved for complying with Statewide Trash Amendments. The appendix will include a general background/description of the types of devices that are considered full capture and then a link to the State Water Resource Boards website which lists all the approved device types (Kuhlman/Mutkowska).	<ul style="list-style-type: none"> Appendix J: Devices Approved for Statewide Trash Amendments has been added.

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12	K-2 to K-4	Add an Appendix with a sample “Covenant and Deed Restriction” to ensure future property owners are notified of the obligation via Title Report. This requires that any Covenant and Deed Restriction needs an Assessor’s Parcel Number conspicuously shown on the first page. The example Covenant and Deed Restriction will be provided by the Program for insertion into the new appendix.	<ul style="list-style-type: none"> Appendix K: Sample Covenant and Deed Restrictions has been added to the document.
13		Reflect changes in Hydrology terminology and methodology due to the newly issued Ventura County Hydrology Manual, updated July 2017 (updated rainfall data, runoff coefficients, etc.). It is assumed that only minor edits will be needed.	<ul style="list-style-type: none"> References Updated.
14	D - 10 to D - 17	In Appendix D, the sediment load calculated on page D-8 and used in pages that followed is off by a factor of 1,000.	<ul style="list-style-type: none"> The correct load unit is g/yr. This edit has been made to all the tables in Appendix D.