

Virginia Stormwater Management Handbook, Version 1.2 – Summary of Revisions

The Virginia Department of Environmental Quality (DEQ), in conjunction with the Technical Review Committee (TRC) created by section 1.4 of the Virginia Stormwater Management Handbook (VSMH), has completed a comprehensive update to the construction best management practices (BMPs) in Version 1.1 (V1.1, effective August 15, 2024) of the VSMH. Between August 2024 and May 2025, the TRC met 4 times to review and provide feedback on revisions to the VSMH and construction BMPs. The result is Version 1.2 (V1.2) of the VSMH.

At the end of this public comment period, the guidance document will become effective, unless written comment is received in accordance with Subsection C § 2.2-4002.1 of the APA. If such written comment is received, the effective date shall be extended by 30-days in order for DEQ to respond to any such comments or the document may be withdrawn. To allow time for the regulated community and other stakeholders to transition to V1.2 of the VSMH, DEQ will accept applications, plans, specifications, and other submissions developed using V1.1 that are submitted and deemed complete (9VAC25-875-110) on or before June 30, 2026. Beginning July 1, 2026, where DEQ serves as the VSMP authority, DEQ will only accept applications, plans, specifications, and other submissions developed using V1.2 of the VSMH.

V1.2 of the VSMH will be available for use on the enCodePlus website at <https://online.encodeplus.com/regs/deq-va/index.aspx> once effective. Prior to then a .pdf version will be posted on the DEQ website at <https://www.deq.virginia.gov/water/stormwater/stormwater-construction/handbooks>.

There were several general goals with the V1.2 revisions. One was to correct known errors or typos, such as an incorrect regulatory citation, mathematical signs in certain equations, grammar, spelling, internal cross-references and web links. Revisions also make the VSMH consistent with amendments to the Virginia Erosion and Stormwater Management (VESM) Regulation, 9VAC25-875, and agency guidance documents that have become effective since August 1, 2024. Other revisions include modifications to the construction BMPs to reflect industry standards for materials and revising inspection frequencies to be consistent with the Construction General Permit (9VAC25-880). The V1.1 Waterbar specification, C-ECM-08, was divided into two separate specifications: C-BMP-08 is the Temporary Waterbar specification; and C-ECM-17 is the Permanent Waterbar specification, which is a new specification that includes the conversion from temporary to permanent. Planting schedules and lists were also corrected and revised to remove invasive species, add more native species, and refer to the most up-to-date published plant lists which are frequently revised based on new information.

The table (below) provides a brief overview of changes from V1.1 to V1.2 of the VSMH. It lists where changes have been made and the subject matter to assist in navigating the .pdf file that accompanies this summary. The .pdf shows tracked revisions with underline and strikethrough. Updated figures are noted below but are not shown with underline and strikethrough.

Section	Summary of Changes
Cover	Revised Version 1.1 to 1.2
List of Tables	Updated to include C-ECM-17 Permanent Waterbars tables. Fixed broken clickable links.
List of Figures	Updated to include C-ECM-17 Permanent Waterbars figures. Fixed broken clickable links.

Section	Summary of Changes
CAD Standard Details	Updated with new C-BMP details and to include C-ECM-17 Permanent Waterbars.
4.2.3 Projects Subject to Local VESMP Authority	Updated Figure 4-1 VESMP Authorities (2025)
4.3.4.1 Criteria and Process for Streamlined ESC and SWM Plan Review	Revised footnotes to clarify that a P.E. fulfilling the role of DCA must have obtained the SWM Plan Review certification.
5.2 et seq.	Revised text to provide further clarification on grandfathering and reflect the new adopted regulations.
5.2.1 Time Limits of Technical Criteria Applicability	Fixed regulatory citation.
5.2.2.1 Locality, State, and Federal Projects	Updated language to reflect revisions to 9VAC25-875-490
5.2.2.2 All Other Land-Disturbing Activities	Updated language to reflect revisions to 9VAC25-875-490
5.2.2.3 End Dates for Projects Eligible for Grandfathering	Revised Figures 5-3 and 5-4 to include footnote describing relationship between approved grandfathered plans and subsequent modifications.
5.3.1 Erosion and Sediment Control Minimum Standards	Added language to clarify that Minimum Standards are enforceable.
6.3 Multi-Step Design Process 6.3.1.5.3 Solar Stormwater Runoff Computations	Fixed typo within calculation.
6.3.2.3.2 Erosion Control Measures	Updated Table 6-12 Erosion Control Measures to include new ones.
7.4 List of BMPs	Updated C-ECM-08 name and added C-ECM-17.
7.4 C-ECM-01 Straw Wattles	Updated to include some straw wattle limitations. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-ECM-02 Impermeable Diversion Fence	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-ECM-03 Slope Interruption Device	Updated to include examples. Corrected slope spacing information. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-ECM-04 Temporary Diversion Dike	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-ECM-05 Diversion	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-ECM-06 Temporary Fill Diversion	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-ECM-07 Temporary Right-of-Way Diversion	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP

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	inspection requirements. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-ECM-08 Temporary Waterbars	Updated to reflect information pertinent to temporary waterbars only, permanent waterbars information is now located in C-ECM-17.
7.4 C-ECM-09 Stormwater Conveyance Channel	Updated to replace 'filter fabric' with 'geotextile'. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated. Appendices outlining grass lined channel design corrected.
7.4 C-ECM-10 Subsurface Drain	Updated to replace 'filter fabric' with 'geotextile'. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated.
7.4 C-ECM-11 Paved Flume	Revised to include a suggestion to use subsurface drains or weep holes in wet areas. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated.
7.4 C-ECM-12 Temporary Slope Drain	Added HDPE equivalent for entrance sections. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ECM-13 Riprap	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated. Updated Appendix to reference internal figures.
7.4 C-ECM-14 Temporary Level Spreader	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Updated to specify soil stabilization blanket and flexible transition mat where appropriate. Corrected aggregate size options for apron. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ECM-15 Outlet Protection	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated.
7.4 C-ECM-16 Flexible Transition Mat	Added web-like material to transition mat description. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
7.4 C-ECM-17 Permanent Waterbars	Added Permanent Waterbars Standard and Specification
7.4 C-ENV-01 Vegetative Streambank Stabilization	Updated to include language to obtain applicable approval or permits. Updated to include DCR recommendations, including plant common and scientific names. DEQ webpage link updated.

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7.4 C-ENV-02 Structural Streambank Stabilization	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ENV-03 Temporary Vehicular Stream Crossing	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ENV-04 Utility Stream Crossing	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
7.4 C-ENV-05 Cofferdam Crossing	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
7.4 C-ENV-06 Stable Wetland Crossing	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ENV-07 Gabions	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
7.4 C-ENV-08 Pump Around Diversion	Update to handbook link.
7.4 C-ENV-09 Overnight Channel Protection	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ENV-10 Trenchless Silt Fence	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Edits made to design criteria concerning the use of wire supported silt fence for improved clarity. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. Recommended consulting the authority prior to removal.
7.4 C-ENV-11 Wetland Berm	Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-ENV-12 Wetland Weir Outlet	Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-ENV-13 Wetland Cell Sediment Trap	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Edits made to planning considerations regarding use in conjunction with other structures. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.

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7.4 C-ENV-14 Modified Turbidity Curtain for Streams	Edits made to Section 7.0 to clarify turbidity curtain material. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-ENV-15 Seeding, Mulching, and Soil Stabilization (Wetlands/Streams)	Updated to include DCR recommendations, including plant common and scientific names. Deleted seasonal specifications for fiber mulch. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-PCM-01 Safety Fence	Revised to match industry standards. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-PCM-02 Straw Bale Barrier	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-PCM-03 Brush Barrier	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Recommended consulting the authority prior to removal.
7.4 C-PCM-04 Silt Fence	Added clarification for silt fence derivatives and the construction specifications for clarity and accuracy. All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-PCM-05 Compost Filter Sock	Edits to the construction specifications for clarity. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-SCM-01 Dust Control	Added Anionic Co-Polymer to adhesives used in dust control table C-SCM-01-2. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-SCM-02 Construction Road Stabilization	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-SCM-03 Temporary Stone Construction Entrance	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-SCM-04 Inlet Protection	All references to filter fabric type materials changed to geotextile for consistency where appropriate. All references to extra strength silt fence material changed to high performance where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-SCM-05 Culvert Inlet Protection	All references to extra strength silt fence fabric changed to high performance where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-SCM-06 Wood Chip Filter Berm	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal.
7.4 C-SCM-07 Rock Check Dams	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-SCM-08 Rock Filter Outlet	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference

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	9VAC25-880-70 Part II G. Recommended consulting the authority prior to removal. DEQ webpage link updated.
7.4 C-SCM-09 Turbidity Filter	Removed 6.2 Removal subsection. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. DEQ webpage link updated.
7.4 C-SCM-10 Dewatering Structure	All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. DEQ webpage link updated.
7.4 C-SCM-11 Temporary Sediment Trap	Added language on maximizing settling when high levels of fines are present. Referenced Appx E for karst areas. All references to filter fabric type materials changed to geotextile for consistency where appropriate. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. DEQ webpage link updated.
7.4 C-SCM-12 Temporary Sediment Basin	Added language describing how temporary sediment basins differ from temporary sediment traps. Added language on maximizing settling when high levels of fines are present. Referenced Appendix E for karst areas. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. DEQ webpage link updated.
7.4 C-SCM-13 Concrete Washout Pit	Updated steel wire stable dimensions in C-SCM-13-2. Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-SSM-01 Tree Preservation and Protection	Inspection occurrence updated to reference 9VAC25-880-70 Part II G.
7.4 C-SSM-03 Surface Roughening	Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
7.4 C-SSM-05 Soil Stabilization Blankets and Matting	Mulching removed from table C-SSM-05-7. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements. DEQ webpage link updated.
7.4 C-SSM-06 Sodding	Updated to include DCR native plant finder. DEQ webpage link updated.
7.4 C-SSM-07 Bermudagrass and Zoysiagrass Establishment	Updated to include DCR native plant finder. DEQ webpage link updated.
7.4 C-SSM-08 Trees, Shrubs, Vines, and Ground Cover	Updated to include DCR recommendations, including plant common and scientific names and removed rare species from plant tables. Updated to include information on native vs. plant considerations. DEQ webpage link updated.
7.4 C-SSM-09 Temporary Seeding	Updated to include DCR recommendations, including plant common and scientific names. Updated to include information on native vs. other plant considerations. DEQ webpage link updated.
7.4 C-SSM-10 Permanent Seeding	Updated to include DCR recommendations, including plant common and scientific names, and to reference Mountains geographic region. DEQ webpage link updated.
7.4 C-SSM-11 Mulching	Deleted seasonal specifications for fiber mulch. Inspection occurrence updated to reference 9VAC25-880-70 Part II G. Clarification of operation and maintenance considerations versus CGP inspection requirements.
8.4.1 Hydrodynamic Devices – MTD-H (8.4.1.2)	Updated to include 2 new Hydrodynamic MTDs.

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8.4.3 Biofilter Devices – MTD-B (8.4.3.2)	Updated to reflect correct hydraulic loading rate.
8.5 P-BAS-02 Wet Pond	Updated to correct RR and TP values in tables
8.5 P-FIL-05 Bioretention	Updated to include DCR recommendations, including plant common and scientific names.
8.5 P-FIL-07 Sheet Flow to Vegetated Filter Strip or Conserved Open Space	Updated to correct unit (inches to feet).
9.4 Sequence of Construction 9.4	Added language to specify perimeter controls are required prior to upgradient land disturbance.
10.2 Inspection and Maintenance Requirements	Updated code reference.
Appx A.2.2 Intensity-Duration Frequency Curves	Fixed spelling typo.
Appx A.3.2.3 Travel Time (Velocity) Method	Removed maximum length of 100' for shallow concentrated flow length to be consistent with TR-55.
A.5.4 Pre-Development versus Post-Development Drainage Areas / Divides	Verified code reference.
Appx B.1.2 Virginia's Adoption of VRRM and Accompanying Spreadsheets	Updated spreadsheet version reference and regulation reference.
Appx F.3.1 Filter Media Criteria and Testing for Bioretention	Updated method weblinks.
Appendix J Standards and Specifications	Updated Appx J for usability and to consistency with regulation, added new form as Section J.18.