VERMONT

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2017 Vermont Stormwater Management Manual Rule

Highlights for House Committee on Natural Resources; Fish and Wildlife

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The 2017 Vermont Stormwater Management Manual (VSMM) Rule (the "Manual") was approved by the Legislative Committee on Administrative Rules (LCAR) on December 15, 2016 and was filed with the Secretary of State on December 28, 2016. The newly adopted Manual will take effect on July 1, 2017.

The adoption of the 2017 VSMM comes following the completion of a collaborative pre-rulemaking public stakeholder process that included workshops, a stormwater working group, additional outreach, and public meetings. The Department's also solicited comments and feedback on a pre-rulemaking draft for consideration in the development of the 2017 VSMM.

The adopted 2017 VSMM sets the design requirements and standards for regulated stormwater discharges, and will replace the 2002 VSMM. The 2017 VSMM does not change the regulatory threshold for state stormwater discharge permits, which remains at 1 acre. The 2017 VSMM is again inclusive of the Water Quality Treatment Standard (1-inch storm event), the Groundwater Recharge Standard, the Channel Protection Standard (1-year storm), the Overbank Flood Protection Standard (10-year storm), and the Extreme Flood Protection Standard (100-year storm). The Manual content as adopted through rulemaking is reflective of only the requirements and is presently being repackaged by the Department in user-friendly format with added guidance, design schematics, and graphics.

Notable changes in the 2017 VSMM:

Increase in Stormwater Treatment Requirements
The Water Quality storm event identified in the Manual, representative of 90 percent of all storm events, is 1.0 inch. This value represents an increase from the 0.9-inch value previously established in the 2002 VSMM. New development is still subject to 100% treatment of the water quality volume (WQ_v), but is now based on the 1 inch value. Redevelopment of impervious surfaces is subject to 50% WQ_v treatment, up from the 20% WQ_v treatment requirement in the 2002 VSMM. This increase in stormwater treatment for both new and redevelopment was made in consideration of statewide water quality goals and in consideration of opportunities that exist for treatment of developed surfaces during redevelopment.

Water Quality Practice Selection
The Manual shifts to a runoff reduction framework, which focuses on retaining runoff on site where feasible. These runoff reduction stormwater treatment practices (STPs) generally rely upon infiltration either through use of structural practices or through disconnection. These practices are required for treatment of the first inch of runoff through a new tiered approach to selection of stormwater treatment practices. This will result in these highest performing practices to be implemented where feasible. These practices, identified as Tier 1 Practices, are expected to achieve the highest pollutant removal and runoff reduction of all the practices identified in this Manual; generally exceeding 80% total phosphorus (TP) and 98% total suspended solids (TSS) removal.

Updated Precipitation Data
The Manual now relies upon the most current precipitation data for stormwater management design, NOAA Atlas 14. This change is a vast improvement over the county-wide rainfall data included in the 2002 VSMM. This new precipitation data now accounts for regional and elevational variations that are evident across the counties and State of Vermont.

New Tools for Redevelopment and Public Transportation Projects
Redevelopment and public transportation projects often present site constraints and additional design challenges that make stormwater treatment and control more challenging. The Manual is now inclusive of two new design options, Site Balancing and Net Reduction, that considers these design challenges. Each of these design options offer solutions for meeting the necessary requirements in consideration of existing impervious surfaces. Additionally, a subchapter dedicated entirely to public transportation projects, now offers transportation-minded STPs and approaches, that in consideration of ROW, existing impervious surfaces, and other constraints, will result in a better water quality outcome for linear projects.

Preservation and Restoration of Healthy Soils
In recognition of the important role that healthy soil quality plays in water quality issues, the Manual establishes a new standard, the Post-Construction Soil Depth and Quality Standard. The standard is designed to retain greater stormwater functions in the post-development landscape, provide increased treatment of pollutants and sediments that result from development, and minimize the need for some landscaping chemicals, thus reducing pollution through prevention. Development activity will be required to protect existing soils or otherwise restore disturbed and compacted soils upon completion of construction.

Anti-degradation
The Manual now includes a specific section pertaining to conformance with the Anti-Degradation Policy of the Vermont Water Quality Standards.

Protection of Groundwater
The Manual now includes a specific section pertaining to the protection of groundwater quality. The Manual addresses the protection of groundwater quality through revised setbacks for stormwater infiltration from groundwater source protection areas, potable water supplies, and wastewater disposal areas. The Manual also includes the prohibition of infiltration from stormwater hotspots, consistent with other state policy and rule related to the protection of groundwater. The Groundwater Recharge Standard has also been increased to further ensure that the average annual recharge rate for the prevailing hydrologic soil groups are maintained to preserve existing water table elevations.

Acceptable Stormwater Treatment Practices
Green Stormwater Infrastructure practices have been incorporated in the Manual, including use of permeable pavement, green roofs, and rainwater harvesting. In addition, the selection of water quality practices through the tiered approach prioritizes runoff reduction and the most effective treatment in the list of acceptable practices. Lower performing practices, including wet swales and grass channels, have been removed from the list of practices that are deemed acceptable for water quality treatment.

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