Vermont Green Stormwater Infrastructure Simplified Sizing Tool for Small Projects



Services / Expertise Stormwater Management Stakeholder Group Facilitation Policy and Guidance Development

Market State Government – Water Quality

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Tree planting and retention is one of 10 green infrastructure practices included in the guidance and sizing tool.

STONE ENVIRONMENTAL worked with the Vermont League of Cities and Towns and staff from multiple divisions of the Vermont Department of Environmental Conservation to develop illustrated guidance and a simplified sizing methodology for a variety of green stormwater infrastructure (GSI) practices, which were released in the fall of 2015. The guidance, which includes standard schematics and construction specifications, accompanies VLCT's updated Low Impact Development / GSI Model Bylaw, and is intended to support implementation of stormwater management practices on small-scale (sub-jurisdictional) development and redevelopment projects in Vermont's smaller and medium-sized communities.

Following a review of tools and methodologies developed for other jurisdictions across the US, Stone developed a Vermont-specific sizing and crediting methodology for a suite of 10 GSI practices. Stone established parallels, to the greatest extent possible, with the framework and performance standards in the revised Vermont Stormwater Management Manual, which had just been released for pre-rulemaking review. Stone developed a spreadsheet that supports sizing of GSI BMPs as a function of select parameters that are easily understood by applicants, including impervious surface treated and soil infiltration rates. The spreadsheet is underpinned by a set of practicespecific design requirements, formatted as fact sheets. Each fact sheet identifies feasibility considerations, as well as basic pre-treatment, treatment design, and maintenance requirements for each practice. The fact sheets contain standard details for the practice, which highlight assumptions made in developing sizing criteria. Two design examples, applying the fact sheets and spreadsheet tool to real-world projects, were developed and presented in a webinar. The final tools and materials are available at www.vlct.org/resource/green-stormwater-infrastructure-toolkit.