

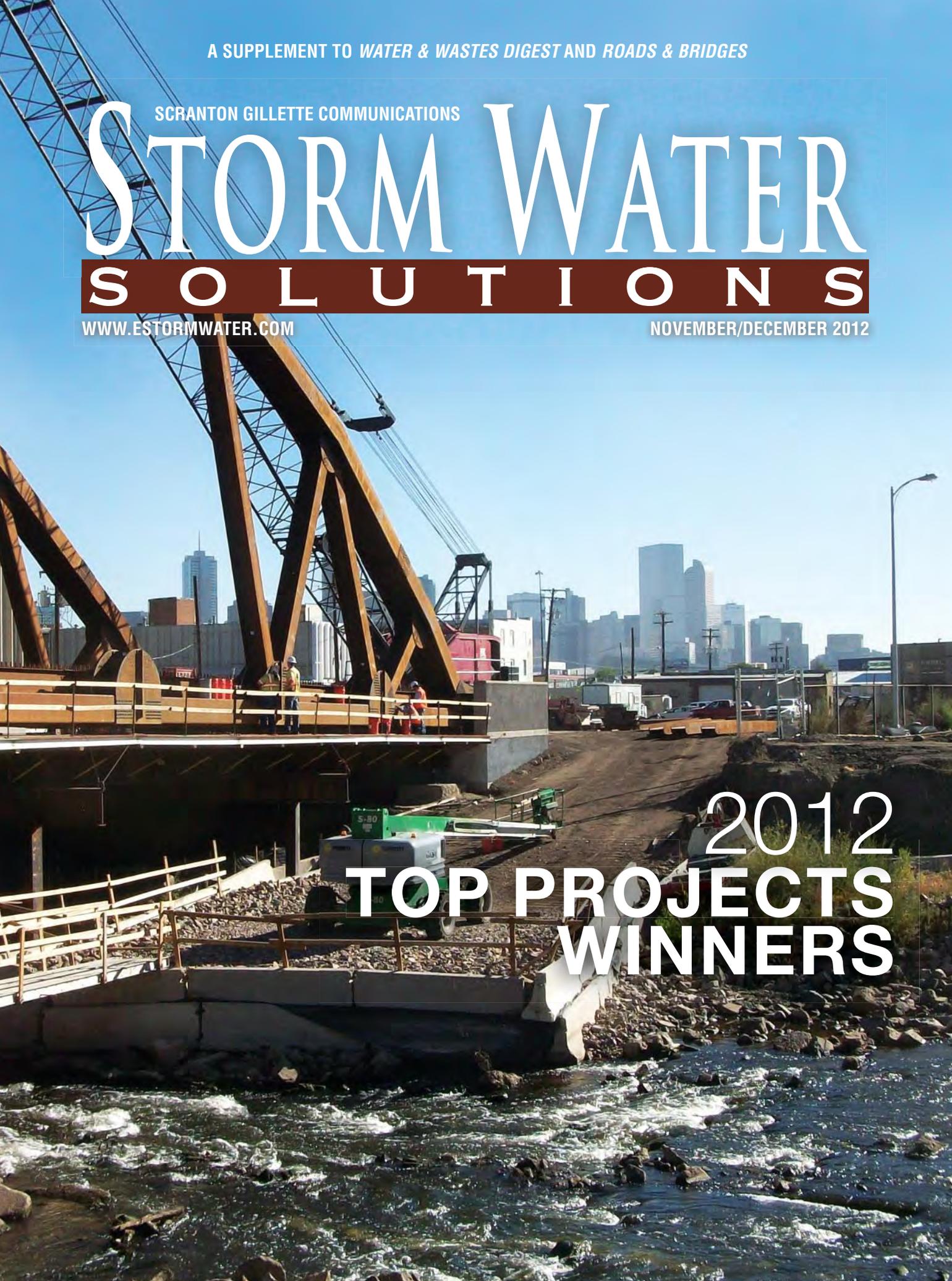
A SUPPLEMENT TO *WATER & WASTES DIGEST* AND *ROADS & BRIDGES*

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# STORM WATER SOLUTIONS

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NOVEMBER/DECEMBER 2012



2012  
TOP PROJECTS  
WINNERS

# 2012 Top Storm Water & Erosion Control Projects

Brought to you by *Storm Water Solutions*

Although the U.S. faced a record-breaking drought this past year, causing concern about water shortages, there was no shortage of storm water and erosion control projects. *Storm Water Solutions* is proud to celebrate the best of these projects with the fifth annual installment of its Top Storm Water & Erosion Control Projects awards.

In this special feature, our editorial staff profiles 10 projects that incorporate innovative solutions and technology to solve an array of problems. The 2012 winners come from 10 different states and include projects that address flood prevention, storm water management and erosion control.

## Application & Selection Process

The submission period for *SWS* Top Projects was June to August 2012, and projects had to be in the design or construction phase within the previous 18 months in order to be considered. The editorial staff selected winners based on the challenges each project faced and the ingenuity and success of the solutions utilized.

We would like to thank all of the project leaders and representatives who took the time to submit projects and photos for the awards program, and we congratulate the owners, engineers, contractors and designers whose projects are honored in this special feature. SWS

**For more information, contact the *Storm Water Solutions* editorial staff at [swseditor@sgcmail.com](mailto:swseditor@sgcmail.com), write in 803 on this issue's reader service form, or visit [www.estormwater.com](http://www.estormwater.com).**

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Top Projects section is sponsored by:

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# Manette Bridge Replacement

The Manette Bridge, located in Bremerton, Wash., needed to be replaced with a slightly taller, wider, approximately 1,600-ft-long bridge. An existing system of potholes discharging storm water directly into Puget Sound also needed to be replaced with conveyance and treatment systems to allow utilization of low impact development (LID) systems.

The space for a treatment facility that would provide runoff treatment for 1.5 acres was limited to 50 ft by 50 ft. The design used an LID concept to create a facility that was low maintenance and had relatively low construction cost, and still fulfilled treatment requirements set by the Washington State Department of Ecology.

Engineers created an underground facility using storm water chambers together with quarry spalls to store the runoff volume, and treatment was fulfilled by infiltration. On the new bridge, storm water now flows across lanes and shoulders to gutters, then along the curb line to bridge scuppers. It is conveyed off the bridge ends in a tight line system and enters pre-settling “cyclonic” manholes to capture sand, floating fluids and debris before being conveyed for further treatment. On the west side, where available space is limited, it flows through a circular filtration vault equipped with filtration cartridges for basic storm water treatment before being discharged into the Bremerton storm sewer system.

The bridge opened to traffic in November 2011, with substantial completion in February 2012. The Washington State Department of Transportation stated that the installation withstood the Northwest’s winter storms of 2011 without any operational issues recorded. 



**Cost:** \$60.72 million

**Size:** 422 gpm

**Designer:** Le Nguyen & Mustafa Mohamedali

**Contractor:** Manson-Mowat JV; Marshbank; DMI

**Owner:** Washington State Department of Transportation

**Location:** Bremerton, Wash.