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Water Environment Federation
the water quality people

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STORMWATER REPORT

Stormwater's Technological Revolution

In the age of artificial intelligence, high-resolution satellites, and access to a limitless amount of data, such stormwater sector activities as mapping a watershed or choosing the optimal location for a new piece of infrastructure are becoming easier by the day. Consider flood detection, for example. Search-engine giant Google is leveraging its extensive network of satellites to identify specific parcels at risk of imminent flooding across 20 countries. Meanwhile, researchers in Germany are eyeing the use of machine-learning to translate seismic data intended to detect earthquakes into earlier flood warnings. This issue of Stormwater Report provides a glimpse into the front lines of the stormwater sector's ongoing technological revolution.

Visit Stormwater Report

Google Takes on Flooding With Satellites, Machine Learning

This month, Google unveiled FloodHub, a publicly accessible portal that enables users to detect riverine flooding up to a week in advance at parcel-scale resolution. The portal shows precisely where rivers likely will overflow as well as how much flooding locals can expect. *Learn more about FloodHub as well as other ways Google leverages its satellite technology to assist stormwater managers* .

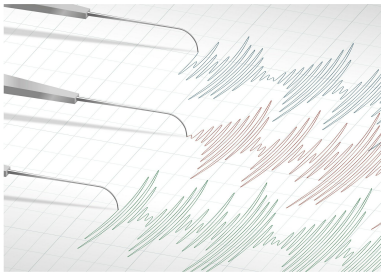
Less Than 0.1% of New York City Buildings Feature Green Roofs, Study Finds

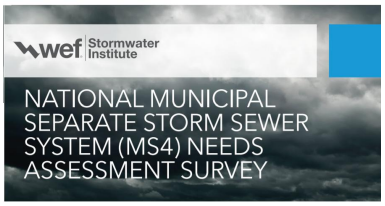
New York City contained more than 1 million buildings in 2016, constituting roughly 16,000 ha (39,500 ac) of impervious space. Of these buildings, according to a new analysis, only 736 contained green roofs — accounting for less than 0.1% of all buildings. The analysis provides the first publicly available, citywide dataset of green roof distribution throughout New York City. *Explore additional insights from the analysis and their significance for environmental justice* .

What Detecting Earthquakes Can Teach Us About Predicting Major Floods

A new study developed by researchers in Germany reports an unconventional finding: Using data from seismometer stations intended to detect earthquakes could also provide earlier notice of severe flooding. Examining seismic data recorded just before a

major flood affecting northern Europe in July 2021, researchers uncovered hints about the oncoming flood's location, velocity, and severity. *Read more about the potential for seismometers and traditional water level sensors to work in tandem to protect people and property*.





Participate in WEF's 2022 MS4 Needs Assessment Survey

The WEF Stormwater Institute 2022 MS4 Needs Assessment Survey is now open for submissions. This is the third installment in an ongoing campaign to gauge the challenges common to U.S. stormwater managers. By participating in the survey, MS4 permit holders and program managers can provide data that will help stormwater advocates close the infrastructure funding gap, raise awareness of sector needs, and inform technical resources. *DEADLINE EXTENDED: Complete the 2022 MS4 Needs Assessment Survey by Dec. 16*.

Make Your Voice Heard on Integrated Planning

The Water Environment Federation's Integrated Planning Task Force needs your help! Please complete this short survey to give us a better sense of the stormwater sector's awareness of integrated planning, understand obstacles to its adoption, and identify opportunities to surmount them. The task force will use survey results to plan efforts that will facilitate the practice of integrated planning in National Pollutant Discharge Elimination System permits and enforcement agreements. *Complete the integrated planning survey by Jan. 18, 2023.*

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