

Adam Krantz



## A Sustainable Future

Utilities search for ways to manage storm water using green infrastructure

*The National Association of Clean Water Agencies (NACWA) collaborated with the Water Environment Research Foundation and the Water Environment Federation to draft Water Resources Utility of the Future ... A Blueprint for Action, describing how today's utilities have redefined themselves. SWS Associate Editor Amy McIntosh spoke with Adam Krantz, managing director of government and public affairs for NACWA, to discuss the "Utility of the Future" and how its practices can be implemented.*

**Amy McIntosh:** What is the "Water Resource Utility of the Future"?

**Adam Krantz:** The Water Resources Utility of the Future (UOTF) describes the shift we are seeing among clean water agencies across the country as they transform from basic providers of wastewater services to full-blown resource recovery agents pioneering innovative technologies and cutting-edge practices. This transformation is occurring because the Clean Water Act is 40 years old, and increasing regulatory and economic pressures have pushed clean water agencies to find new solutions and technologies to continue to meet water quality standards. Utilizing green infrastructure to manage storm water is just one of the solutions that comprise the UOTF as clean water agencies strive to deliver broader environmental, economic and social benefits to their communities and regions. Utilities also are generating renewable energy from biosolids and liquids, capturing waste heat and energy, reclaiming and reusing water, and extracting and finding commercial uses for nutrients.

**McIntosh:** How can green infrastructure manage storm water?

**Krantz:** There are many opportunities to use green infrastructure to manage storm water and improve water quality by transforming roofs, roads, vacant lots, bridges, medians, parking

lots and other paved spaces. Examples of green infrastructure include vegetated swales, rain gardens, porous concrete and rain barrels to capture or divert storm water that otherwise would go directly into the sewer system and instead uses nature's own mechanisms for treatment.

**McIntosh:** What benefits can green infrastructure offer a water utility and its community?

**Krantz:** Green infrastructure has economic, environmental and community livability benefits. It can raise property values and attract individuals, families and businesses to urban centers, thereby broadening the local tax base and bringing revenue to cities. Often, green infrastructure can be a lower-cost approach while also providing other environmental, economic and social benefits for communities. These benefits include reduced flooding and sewer overflows, increased energy efficiency, water quality improvements, reduced air pollution, and improvements to wildlife habitats and aesthetics.

**McIntosh:** How can a utility retrofit or implement green infrastructure while under budgetary constraints?

**Krantz:** Green infrastructure is a tool in a municipality's toolbox to address wet weather issues. It is not a panacea and each community needs to determine how to utilize this approach.

That being said, green infrastructure solutions can provide communities with more cost-effective ways to manage storm water while also providing future savings by reducing the amount of polluted runoff, lowering overall construction and maintenance costs, and increasing energy savings.

In addition, there are some limited federal funding opportunities available to communities, which NACWA also is seeking to expand. These include the U.S. Environmental Protection Agency's Green Infrastructure Program, which is providing technical assistance to 27 community partnerships to support their efforts to implement green infrastructure solutions to storm water problems. While small, recipients often use this assistance strategically to meet specific scientific or research needs in order to motivate broad participation across communities, and to engage regulators on matters of affordability and compliance scheduling. **SWS**

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