

Larry Levine



## Going Green

Cities find ways to finance green infrastructure & address water pollution

*Many cities are turning to green infrastructure as a cost-effective solution to water pollution. SWS Assistant Editor Williette Nyanue spoke with Larry Levine, co-author of “Creating Clean Water Cash Flows,” to discuss the benefits of green infrastructure and the actions that U.S. cities are taking to finance it.*

**Williette Nyanue:** Why is financing green infrastructure important?

**Larry Levine:** U.S. cities need major investments in clean water infrastructure to restore the health of polluted waterways. The federal Clean Water Needs Survey has identified that more than \$100 billion of infrastructure investment is needed over the next 20 years to address storm water and sewage overflows. That is likely a significant underestimate, as it is based on incomplete survey responses from state and local jurisdictions, and does not include the additional hundreds of billions [of dollars] needed for municipal wastewater and drinking water infrastructure. At the same time, federal funding, which has traditionally supported these investments, is far less plentiful than it used to be.

Cities are increasingly turning to green infrastructure as a cost-effective solution, with many developing long-term green infrastructure plans to meet pollution reduction goals. These investments not only can improve water quality, but also can beautify neighborhoods, cool and cleanse the air, reduce asthma and heat-related illnesses, save on energy costs, boost economies and support American jobs—usually at the same or lower cost than a grey infrastructure solution to sewage overflows and polluted runoff.

**Nyanue:** What strategies can cities use to attract private investment to green infrastructure development?

**Levine:** “Creating Clean Water

Cash Flows” explores a range of approaches, including:

- Providing storm water fee discounts and subsidies: Rewarding property owners with lower storm water fees for implementing green infrastructure solutions creates a financial incentive for investment in retrofits. These fee discounts can be coupled with direct subsidies to help defray a portion of the upfront capital costs.
- Facilitating project aggregation: Use of governmental resources—as well as private sector innovation—to aggregate numerous storm water projects could substantially reduce transaction and construction costs by spreading fixed costs and services over a larger number of projects.
- Private-public partnerships: A pay-for-performance structure, which could be modeled on the private-public partnership arrangements common in traditional infrastructure projects, can help accelerate large-scale private investment in green infrastructure.
- Offsite mitigation and credit trading: This can help direct private investment dollars to the most cost-effective green infrastructure projects by incentivizing property owners with constraints on their own properties to invest in green infrastructure retrofits on other sites. It also can incentivize the owners of sites with especially low-cost green infrastructure opportunities to outperform minimum

regulatory standards and generate tradeable credits.

**Nyanue:** What are cities in the U.S. doing to finance green infrastructure?

**Levine:** Many cities, such as Philadelphia, Washington, D.C., and Portland, Ore., now require redevelopment projects to manage onsite a minimum volume of storm water using green infrastructure practices, thereby leveraging market-driven real estate investment to serve municipal storm water management goals; the U.S. Environmental Protection Agency is considering incorporating such performance standards into nationwide rules. Also, cities rely on a combination of funding sources—including state and federal low-interest loans and grants, municipal bonds, storm water and/or wastewater utility fees, and general tax revenues—to finance public green infrastructure projects. Various tax credits, grants and storm water fee reductions also can incentivize private property owners to undertake green infrastructure projects. **SWS**

Larry Levine is senior attorney for the National Resources Defense Council. Levine can be reached at [llevine@nrdc.org](mailto:llevine@nrdc.org).

Williette Nyanue is assistant editor for *Storm Water Solutions*. Nyanue can be reached at [wnyanue@sgcmail.com](mailto:wnyanue@sgcmail.com).

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