The Economist

Water-saving in the north-east

Trees grow in Brooklyn

A natural form of relief for overworked city sewers

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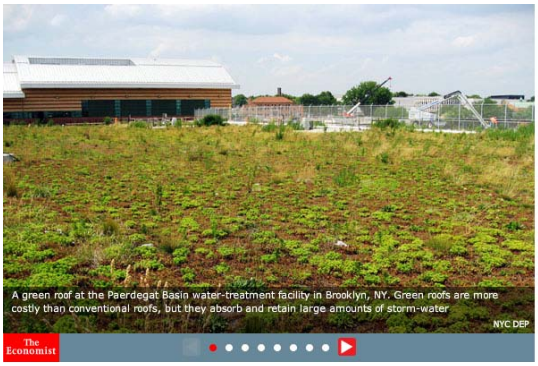

LIKE other post-industrial areas in the city, New York's Gowanus neighbourhood is getting stylish. But those who venture there after a heavy rainstorm might rethink their plans to buy that loft. When the city's ageing sewerage system is overwhelmed, untreated storm-water and sewage flood into local waterways, including the Gowanus Canal. The resulting whiff is sure to keep property prices at a level starving Brooklyn artists can afford.

New York has a serious sewer problem. The city spills more than 27 billion gallons (102 billion litres) of untreated overflow into its harbour each year, according to Riverkeeper, a local advocacy group. And New York is not alone. Nearly 800 American cities rely on decrepit systems that collect storm-water run-off, industrial waste and human sewage in the same pipes. Usually these pipes take waste water to treatment plants. But any overflow is released into rivers and streams.

Time, erosion and increasingly erratic weather have made this a national issue. The Environmental Protection Agency (EPA), the federal body in charge of monitoring water standards, says the country needs to invest $300 billion over the next 20 years to update or replace existing sewer infrastructure. But except for the money for improvements set aside in the 2009 stimulus bill—a not-ungenerous $6 billion—the federal government has left states to their own devices. Some cash-strapped cities have decided to get creative.

New York recently unveiled a grand plan to clean up its waterways. Instead of spending billions on new tanks and pipes (ie, "grey infrastructure"), which take years to build and never quite

address the problem, the city intends to invest in “green infrastructure”, such as roofs covered with vegetation, porous pavements and kerbside gardens. The scheme involves a fundamental shift in approach: instead of treating rainfall as waste to be whisked away as quickly as possible, New York will let it sink usefully into the ground: thereby helping to make the city greener, improve air quality, raise property values, increase jobs and lower water and energy costs, according to studies by the EPA and others.

This is no unfunded pipe-dream. The city is already required to spend $6.8 billion over 20 years to meet harbour-quality standards. The greener plan would cost government a third less, with $2.9 billion for tunnels and tanks and $1.5 billion for green innovations. New buildings would also have to meet run-off regulations.

This is a way of achieving more than one thing with tax dollars, says Carter Strickland, a deputy commissioner in New York’s Department of Environmental Protection. Unlike a sewage works or a new pipeline, which take years to build and which no one wants nearby, green infrastructure projects offer benefits the moment the first tree is planted or a rain barrel is installed. “Isn’t it nice?” observes Mr Strickland as he shows off one of the city’s 30 pilot projects, a little roadside garden deep in Brooklyn, with a tree and some flowers. It is indeed, and it can capture nearly 1,000 gallons of storm-water that would otherwise pour into a nearby drain.

Green-infrastructure ideas are also taking root in places as far apart as Kansas City, Milwaukee, Portland and Washington, DC. In California, where droughts make salvaging rainwater especially wise, a new statewide green building code will take effect on January 1st 2011. But the most comprehensive scheme so far comes from Philadelphia, which is seeking EPA approval for its 25-year, $2 billion approach to “green” at least a third of the city’s impervious cover. If approval is granted, this will be the first plan that officially meets federal clean-water guidelines.

The city has gone some way towards meeting its green goals. In 2006 it began regulating the way new constructions manage storm-water on its property. The city’s water department has adjusted its rate structure, levelling the highest charges at the biggest polluters (eg, car parks) instead of the biggest water consumers. The idea is to prod the private sector to improve its environmental record.

Green-infrastructure plans face some obstacles. They are often at the mercy of local zoning and building codes, and many cities are reluctant to change. Yet David Beckman at the National Resources Defence Council is optimistic. “Usually we’re plaintiffs,” he says, “but here we’re collaborators, working with the city.” Finally cities are finding ways to handle storm-water that needn’t involve holding one’s nose.

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