



Buffalo Environmental Management Commission

Monthly Energy/Efficiency and Sustainability TIP SHEET June 2011

As part of its City Charter-defined mission to advise the Mayor and Common Council on environmental issues affecting the City, the Buffalo Environmental Management Commission submits a monthly "tip sheet" on a timely topic for information, review and consideration. This month's tip sheet showcases Philadelphia's "Green City, Clean Waters".

Philadelphia has embarked on the largest project in the U.S. to reduce storm water pollution through eco-friendly measures such as porous asphalt and rooftop gardens. The "Green City, Clean Waters" plan is a 25-year, \$2 billion effort to modify infrastructure to reduce the amount of rainwater tainted with road oil, litter and raw sewage that flows into nearby rivers and streams.

The initiatives are expected to reduce, by 5 billion to 8 billion gallons, the amount of water overflow going into the city's waterways each year. This represents an 80 to 90 percent reduction to the Delaware and Schuylkill Rivers.

The Philadelphia Water Department estimates the improvements would add \$8 to a typical resident's monthly water bill over the next two decades. Even so, the "Green City" plan is less expensive than other infrastructure expansions the city considered.

Sixty percent of Philadelphia has a combined sewer system that allows runoff from streets and wastewater from bathrooms and kitchens to flow through the same pipes. The drainage system can handle the load in dry weather, properly sending wastewater to water treatment plants and storm water to streams. However, during heavy rainfalls the system overflows and sends storm water laced with motor oil, trash and human waste with high bacteria concentrations into surrounding waterways.

The city is now working with state officials and environmental consultants on a major departure from conventional practices. The team developed a plan to install green roofs on city buildings, plant trees and other vegetation along sidewalks, and repave streets, basketball courts and parking lots with porous asphalt and concrete that lets rainwater flow through.

The city has already begun to roll out some elements of the plan. Last month it paved a small Philadelphia street with porous asphalt, which looks like traditional impervious blacktop, that has tiny voids so storm water can drain through the surface into a bed of gravel below. The water then seeps into the soil below, instead of directly running off of the street into nearby waterways. A secondary benefit of the process is the reduction of potholes caused by the freezing of the runoff during winter.

If you have any comments or questions regarding the tip sheet please contact Joe Gardella (Interim Chair, BEMC) at gardella@buffalo.edu or Dennis Sutton (BEMC support staff) at dsutton@city-buffalo.com.

BEMC members are willing to promote implementation of these programs in the City of Buffalo. BEMC meets the third Wednesday of every month, 8:00 AM, 901 City Hall. The BEMC web site address is:

http://www.ci.buffalo.ny.us/Home/CityServices/Environmental_Management_Commission