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**Focus on Sustainable Solutions Will Go a Long Way**  
*By Regional Administrator Shawn M. Garvin*

Nowadays, it takes little convincing to get organizations, businesses, and even local governments to turn their attention to carrying out their day-to-day work in new ways that not only lessen their environmental footprint, but help create and sustain a healthier planet for us all. In the face of challenges like climate change, energy security, jobs and the nation’s economic future, the term ‘greening’ has taken on greater meaning and importance. We are focusing the next few issues of EPA Region III’s Local Government Quarterly Newsletter on *Sustainability*, recognizing that our planet’s future depends on the discovery of innovative, sustainable solutions to our most pressing public health, environmental and economic challenges.

Creating a sustainable future considers what is needed to protect the health and well-being of global populations, conserve and preserve our world’s natural resources, and help all nations prosper. Sustainability starts ‘at home,’ as the articles in this issue point out. Local governments in the Mid-Atlantic Region are leading the way in taking actions to green their communities and make them stronger, resilient, and more sustainable.

Some have embarked on ambitious plans for using green infrastructure such as porous paving, green roofs, increased tree plantings and vegetation to capture stormwater and reduce flooding. Others are exploring ways to improve and maintain aging water and sewer infrastructure while reducing their energy usage and limiting costs to customers. For instance, as you read on, you’ll learn that more small municipal wastewater treatment plants are beginning to utilize a waste-to-energy technology called biogas to power their facilities, making them less dependent on electricity providers.

On June 2, 2014, EPA Administrator Gina McCarthy announced the Clean Power Plan -- a historic step forward in protecting Americans’ health and environment now and for future generations by cutting carbon pollution from the nation’s largest single source, power plants. This proposed action, combined with the many other responsible actions local governments and their citizens can take ‘at home’ will go a long way in building a healthier, more secure and resilient future. As your partner, EPA remains ready and available to help you achieve your vision of a greater tomorrow.

From the Editor...

*How are we doing?*

If you have general feedback, suggestions for improvements or innovative ideas, please send them to [R3\\_LOC\\_GOV@epa.gov](mailto:R3_LOC_GOV@epa.gov).

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### **Increased Funding for Local Governments & Watershed Organizations**

EPA's Fiscal Year 2014 budget contains an additional \$5 million specifically to provide funding to local governments and watershed organizations to reduce nitrogen, phosphorous, and sediment pollution to the Chesapeake Bay, consistent with the Bay watershed jurisdictions' Watershed Implementation Plans (WIPs). The funding, administered through EPA's Region III Chesapeake Bay Program Office, and provided directly to the states, is in addition to previous support for local governments provided through the Innovative Nutrient and Sediment Reduction, Small Watershed grants program, and through the Environmental Finance Center.

EPA will allocate these funds to the Bay jurisdictions using the same formula for distributing funds through the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grants, targeting the relative effectiveness of nutrient reductions within a jurisdiction on water quality in the Bay and how readily nutrient sources can be controlled. Under this formula, jurisdictions with a greater impact on nutrients in the Bay that are expected to make larger pollution reductions will receive a greater share of the local implementation funding.

The \$5 million in additional funds is for use by local governments and/or local watershed jurisdictions, including counties, municipalities, cities, towns, or townships, as well as local public authorities or districts (including conservation districts or regional planning districts), organizations representing local governments, or watershed organizations. Jurisdictions will make awards to local entities based on their ability to reduce nutrient and sediment loads through key sectors, such as land development and agriculture. Jurisdictions may also request in-kind services by having EPA contractors assist local entities with implementation needs identified by EPA in its milestone evaluations.

## **Local Government's Role in the New Bay Agreement**

*by Sheila S. Noll, Chair*

### ***Local Government Advisory Committee to the Chesapeake Executive Council***

On June 16, 2014 a new Chesapeake Bay Watershed Agreement was signed by the Governors of Delaware, Maryland, New York, Pennsylvania, Virginia, and West Virginia, the Mayor of the District of Columbia, the EPA Administrator on behalf of the United States Government, and the Chair of the Chesapeake Bay Commission. The Local Government Advisory Committee (LGAC) played an integral role in the development of the Agreement. "While local governments are not official signatories to the new Agreement, we have an important role to play in the protection and restoration effort. We also have much to gain" said Dave Dunmyer, Queen Anne's County Maryland Commissioner and LGAC member.

It has been a long journey to reach this point. No stone that presented a possible obstacle was left unturned. This new Agreement has been a team effort of federal, state and non-governmental organizations and the representatives LGAC appreciated being asked to take part. All voices were heard. Many participants put in countless hours and exerted infinite patience so that the Agreement might be acceptable to all signatories and we congratulate those who were involved. The journey is not over, however until we have a clean Chesapeake Bay.

"Local governments throughout the nation are faced with many challenges, not the least of which is ensuring that our communities have a safe and reliable source of water" said Lancaster City Mayor and former LGAC Chairman Rick Gray. Recent storms heightened our awareness of the need to minimize impervious surface and find new ways of managing stormwater runoff, particularly in light of changing climatic conditions.

The new Bay Agreement will help the Bay Program Partners better direct their attention to the many issues affecting the health of the watershed. Meanwhile those of us working at the local level can focus on those issues that matter most to our citizens, whether it is addressing flooding, protecting drinking water, or restoring a trout stream.

I encourage you to read the Agreement and identify the Goals and Outcomes that intersect with your community's priorities and then get involved. The collective impact of our individual efforts cannot be underestimated!

For more information and to read the Agreement go to: <http://www.chesapeakebay.net/chesapeakebaywatershedagreement/page>

## **Sustainability Looks Better When It's Green**

Sustainability has become more than just the latest catch phrase for communities. It has developed into a wholesale change of living for many localities. Local planners are meeting with their city leadership to brainstorm ideas on how to implement energy saving policies in township, city and county government offices that lead to reductions in utility costs while helping the environment. One EPA program that has been relied upon by communities across the country for implementing sustainable initiatives which led them to financial savings is the Green Power Procurement (GPP) Program.

The GPP Program is a unique way for local governments no matter the size to learn ways to reduce their greenhouse gas emissions while also saving money. The procurement program identifies all the options localities have for reducing energy costs so if you are just implementing an energy reduction strategy, the GPP Program will have suggestions for your plan. Additionally the GPP Program has a guide that will explain how the procurement program operates and identify initiatives other local governments performed to reduce their greenhouse gases.

Large cities like Houston, Texas began purchasing renewable energy credits of wind and solar power from their local utility provider Reliant Energy and are now using almost 623,000 MWh per year of green energy which is equal to the yearly power usage of 55,000 homes. Smaller communities like Edmond, Oklahoma worked with their local utility company to provide enough wind and geothermal energy to power almost 75% of their government's facilities. The GPP Program is an excellent start to your community's path towards sustainability and green future.

For more information on the GPP Program go to: <http://epa.gov/statelocalclimate/documents/pdf/greenpowerprocurement508final.pdf>.

## Rethinking Recycling

When we think about recycling most of us picture that blue can in our home or office where we put paper, plastic, cans and glass, but that is only a small portion of the waste we produce. The average American generates nearly four and a half pounds of waste per day – now multiply that by every person in your town/city and the waste pile gets pretty big – pretty fast!

Organics such as food scraps, food soiled paper products, leaves, grass clippings, brush and tree trimmings comprise about 60% of our waste stream and they are all recyclable – as compost!

Compost is an organic material that can be used to enhance soil quality like a natural fertilizer. Compost is created by combining organic wastes (e.g., yard trimmings, food wastes, manures) in proper ratios into piles, rows, or vessels; adding bulking agents like wood chips. All things that you are likely paying to dispose of in landfills.

The environmental problem with organics is that once landfilled they decompose rapidly and release methane – a powerful greenhouse gas linked to climate change.

In addition to saving on disposal costs compost also reduces or eliminates the need for chemical fertilizers, promotes more robust plants, reduces the amount of water and pesticides needed in landscaping and agriculture.

Another alternative to paying for disposal of excess food – food that is “too good to waste” - is donation. In 2011, Americans wasted 36 million tons of food 96% of which went to landfills or incinerators. Most of that food could have been diverted to local hunger-relief organizations in your community. As a nation we waste about 40% of the food produced, yet 1 in 6 Americans is food insecure, not knowing where their next meal is coming from.

Schools, hospitals, cafeterias, concession stands all generate excess food. Donate the good stuff, and what is not suitable to feed people, can feed the earth through composting. A model of Sustainability!

For more information on how your city/town can compost go to: [www.epa.gov/compost](http://www.epa.gov/compost) or contact Mike Giuranna at [giuranna.mike@epa.gov](mailto:giuranna.mike@epa.gov).

For more information on how to feed people and not landfills go to: [www.epa.gov/foodrecovery](http://www.epa.gov/foodrecovery) challenge or contact Luke Wolfgang at [wolfgang.luke@epa.gov](mailto:wolfgang.luke@epa.gov)

## Waste to Energy

When we think renewable energy we usually think solar or wind. There are other renewable energy sources that are less common, one being Biogas. Biogas is produced at many wastewater treatment and agriculture facilities where it is used to create heat and power. So why not tap into this resource?

What is Biogas? Biogas is mostly composed of methane, a fuel source. As bacteria in anaerobic (no air) environments respire, they produce methane.

What is being done with this gas at the wastewater and agriculture facilities to create energy? Many facilities have installed anaerobic digesters to reduce the amount of biosolids (sludge or manure) that have to be hauled off to landfills or spread on farm fields. The biogas is captured from these digesters and used to fuel engines and/or turbines that create clean heat and green energy. The heat warms up buildings and the digester unit and the electric energy is used to offset purchases from the facility's electricity supplier. Systems like these are commonly called Combined Heat and Power (CHP) systems.

Municipal wastewater treatment plants have been using this technology for many years. In other words, this isn't new, but the technology is becoming more reasonable for smaller systems and extremely efficient, as well.

Some facilities produce enough biogas to power their whole facility and, in turn, are not dependent on the electric company at all. Facilities get to this point by accepting additional waste like grease or oils (natural), scraps from large food manufactures, or other organic wastes from other facilities.

This type of operation is beneficial to everyone: wastewater and agriculture facilities, manufacturing and other companies, and the community as a whole. The local manufacturing company that pays to haul waste to a landfill could possibly reduce their costs by sending its organic waste to a wastewater treatment or agriculture facility with a CHP system. It's time to think outside the box and see how we can all work together to help our communities be more self-sustainable. Check out the sustainable technologies being used by one utility in York, Pennsylvania: <https://blog.epa.gov/healthywaters/2014/05/waste-not-save-a-lot/>.

Helpful Links:

<http://www.epa.gov/agstar/about-us/index.html>

<http://www.epa.gov/chp/basic/index.html>

## Talking with Your Design Engineer

\*Funding Available\*

When considering changes and upgrades to water and wastewater treatment systems, plan ahead. First, talk with your plant operators and managers to determine whether existing equipment is being managed properly and run efficiently. You may not always need new equipment: plant optimization can save energy and money. Water and wastewater treatment facilities are the number one energy consumer for many municipalities. Because aeration and pumping systems use the most energy, research control technologies that offer the best efficiency. Since some energy saving measures may be economically unfeasible on the basis of energy savings alone, an ideal time to conduct an energy audit is prior to a facility upgrade. Including energy saving projects in design plans and specifications is much cheaper than retrofitting later. And think boldly: many treatment plants are turning "wastewater" into an alternative source of energy, as discussed in the previous article *Waste to Energy*.

Beyond energy projects, there are some other topics you should discuss with your design engineer. Ask if you could reuse treated wastewater for industrial purposes or to irrigate municipal parks, golf courses and other landscaped areas. Be sure to design with the possibility of local flooding in mind. Ask about back-up power and raising the level of essential equipment to protect against water damage. Also consider whether stormwater could be controlled and managed through green roofs, trees, rain gardens, vegetated swales, permeable pavements, and use of rain barrels. And think about whether or not your utility is "climate ready." A climate ready utility is one that is prepared for and resilient to extreme weather events, sea level rise, and changing precipitation patterns.

Here's some good news: under the Clean Water and Drinking Water State Revolving Loan Fund (SRF) programs, EPA provides grants or "seed money" to states, and the states in turn provide affordable financing to communities. Community projects that include the above design considerations are not only eligible for SRF/low interest loans, many states also offer incentives (reduced interest rate & higher ranking points) for projects that include these concepts. SRF funds are available to assist with planning costs too! To find out more about the SRF program in your State, check out:

SRF Contacts: <http://www.epa.gov/reg3wapd/infrastructure/financial/states.htm>.

Finally, be a champion for your treatment plant manager and operator. Having someone on the team who is supportive and has the authority to implement operational changes is critical.

To learn more, go to:

Energy Efficiency: <http://www.epa.gov/reg3wapd/infrastructure/EnergyEfficiency/index.html>.

WaterSense Program: [http://www.epa.gov/watersense/test\\_your\\_watersense.html](http://www.epa.gov/watersense/test_your_watersense.html).

EPA Region 3: [http://water.epa.gov/infrastructure/sustain/asset\\_management.cfm](http://water.epa.gov/infrastructure/sustain/asset_management.cfm).

Effective Utility Management: <http://www.watereum.org/>.

Climate Ready Utilities: <http://water.epa.gov/infrastructure/watersecurity/climate/index.cfm>.

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