

Bethlehem going green

[The Bethlehem Gadfly](#) [Climate Action Plan](#), [Environment](#), [Environmental Advisory Council](#), [Gadfly's posts](#), [Serious Issues](#) March 22, 2019

(The latest in a series of posts relating to the environment, Bethlehem's Climate Action Plan, Bethlehem's Environmental Advisory Council)

[Dawn Nixon, "Lehigh Valley leaders discuss efforts to go green." WFMZ, March 12, 2019.](#)

On March 12 our Mayor Donchez joined with representatives from Allentown and Whitehall at the Lehigh Valley Mayors' Sustainability forum to discuss Valley efforts to "go green."

The Mayor talked of converting to LED lights; working with UGI and PPL to reduce the amount of gas used by local businesses; such key components as green buildings, energy efficiency and conservation, water and wastewater systems and climate friendly transportation; and plans for a consultant to assist the city in developing a climate action plan.

"Mayor Donchez closed the forum's discussion by commenting on how any efforts made by individual cities benefit the entire Lehigh Valley. 'The more we work together on key issues, the better the Lehigh Valley will be as a whole,' he said."

Here for us are the key slides from the Mayor's presentation showing work done and on the radar:



ENERGY EFFICIENCY AND CONSERVATION

- Energy generation is the largest source of greenhouse gas emissions. Thus, strategies to conserve energy and use it more efficiently in City operations and the community help reduce greenhouse gas emissions. In addition, energy efficiency and conservation measures save money and resources and are simply good business.



Completed Work

- Traffic Signal LED Conversion
- Non-Decorative Streetlight LED Conversion
- Facilities Improvements – New Windows, Lighting Controls with Motion Sensors, New Boiler, Fan Coil Replacement, New Boiler at Lincoln Fire Station

BETHLEHEM ENERGY EFFICIENCY PROJECTS

Anticipated Future Work

- Removal of approximately 230 streetlights along Route 378 in 2019 & 2020.
- Replacement of 116 HPS fixtures along Route 412 with LED fixtures in 2019.
- Fan Coil Replacements for the Public Safety Building 2nd & 3rd Floors in 2019.
- Chiller Replacement at City Center in 2019.
- Domestic water tanks and hot water heat exchangers at City Center in 2019.
- Boiler replacement at City Center in 2021.
- Installation of exterior LED lighting at City facilities.
- We are investigating grants for installation of LED fixtures at our sports fields.
- Migration to Christmas Decorations using artificial versus cut down live trees.

WATER AND WASTEWATER SYSTEMS

- Water and wastewater systems play an important role in sustainability for several reasons. First, energy is used to convey, pump, distribute, treat and heat water, so saving water saves energy. Second, experts agree that the effects of climate change will further reduce the availability of water. Therefore, efforts to conserve water will play an important role in saving energy, reducing greenhouse gas emissions and securing water resources for the future.

Completed Projects

Water Filtration

- VFDs installed on backwash pumps
- Filter bays redesigned and backwash tank installed to save pumping energy and water

Wastewater

- VFDs installed on primary pumps and CSO pumps, and aeration basin mixers
- Use of biogas from anaerobic digestion to burn in boilers
- Class "B" Permit obtained to allow beneficial use of biosolids saving landfill space and disposal costs
- Dewatering centrifuges installed to replace the belt filter presses for drying of sludge. The centrifuges are more energy efficient and reduce the trucking required to dispose of the sludge by producing a drier sludge.

Bethlehem Authority

- Managed timbering and sale of carbon credits



Anticipated Future Projects

- Considering use of excess biogas for cogeneration of electricity.
- The Bethlehem Authority has contracted with a wind turbine development company to install several wind turbines at Wild Creek and Penn Forest watershed property.

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BETHLEHEM WASTE REDUCTION AND RECYCLING

Completed

- 50.1 million pounds of recyclables were collected in 2017.

Planned Work

- Continue to increase recyclable collections through education and advertising.

It's Friday, March 22, do you know where your local Climate Action Plan is?