## Bethlehem Environmental Advisory Council General Meeting July 6, 2017

**Attendees:** Present were Council members Lynn Rothman, John Brunner, Jack Gambino, Brian Hillard, and Mike Topping. Also in attendance were Roseanne Amano; Rebecca Kennedy; Tinku Khanwalkar, Allentown EAC; Matt Dorner, Bethlehem PWD; Darlene Heller, Planning Director; City Councilman Michael Colón; Andrew Goldman, and Kathy Fox.

**Guest Speaker:** Rebecca Kennedy of Pennsylvania Infrastructure Investment Authority (PENNVEST) gave a talk on the water cycle, including how this area was completely forested prior to human occupation with approximately 40-45 inches of rain each year, but only 10% runoff. Since that time man has altered the landscape with logging, farms and eventually cities, which have completely changed the amount of runoff and how it is located in streams, which carry it to rivers at lower elevations and ultimately to the ocean. In the beginning many of the streams did not exist alone but were part of vast wetlands, which allowed the water to return to the atmosphere during dry times in the cycle. Over the last 500 years or so, man has engineered the design of watercourses around built up areas and thus changed the "natural cycle" to include large amounts of water which runoff the landscape instead of being absorbed into the soil or returned to the atmosphere.

A part of this redesign included the creation of storm water piping to direct runoff to local streams. Thus, many of the streams and lakes became polluted from the runoff from streets and parking lots, as well as the effluent from industrial discharges and sewage treatment plants. Chemicals from lawns and farms also added to the problem. Many streams became nothing more than polluted sewers that carried the pollution downstream. The creation of the EPA and the Clean Water Act helped to correct this situation and many lakes and rivers are cleaner now then they were 50 years ago.

The treatment of raw sewage is important for public health but can be very expensive. Thus, it is important to properly separate storm drainage from sanitary sewage. Many cities have done this to some degree, but the water that ends up in the local stream, whether from the sewage treatment plant or from runoff from local properties, is often still full of stuff, which is harmful to the stream and its inhabitants. All municipalities, which have a sewage treatment plant, charge a fee to the property owner for the operation of the plant, but there is no fee for the treatment of runoff waters, which enter the local streams. In order to help study and ultimately fix this problem, many municipalities have decided to charge a fee to all property owners to help cover the costs for controlling storm water.

Meanwhile the EPA has mandated that all municipalities abide by the MS4 Regulations, which require municipal storm water management controls on the amount and type of storm water allowed to enter local streams. The goal is to try and develop programs, which require any development to create no more storm water runoff from the property then would have been created in its natural condition. Thus, any rain, which falls on the property, should be either returned to the atmosphere or absorbed into the earth. Rain gardens, green roofs, rain barrels, tree plantings and pervious paving materials can help in this effort. For further information on this subject go to: www.stormwaterpa.org/ms4-program.html.

**Approval of June Minutes:** After some minor corrections John moved and Brian seconded approval as corrected; approved.

**Chair's Comments:** Lynn reminded everyone that the EAC still needs a seventh member to complete our membership.

**Board Comments and Announcements:** None

**Committee Reports:** Roseanne Amano reported that the Rose Garden has a particular need for water during dry times and that Bethlehem Backyards for Wildlife (BBFW) has also been caring for the plants along the trestle and provided 7 tons of gravel along the Greenway, as well as putting mulch on the towpath.

Climate Action Plan: Lynn and Brian went to the June 14<sup>th</sup> meeting and later were asked if there was a particular portion of the plan that the EAC would like to work on. Brian suggested that he would be interested in researching the use of electric cars, especially for the Parking Authority, which could reduce emissions and possibly save money for the City and the Authority. He noted that sometimes the gains in lower emissions can become an involved calculation since the batteries in electric cars often gain their power from power plants that burn coal or oil. This along with the costs of buying or leasing the vehicles and the attendant infrastructure necessary to maintain the vehicles means there is a lot to consider if the transition is made to an electric fleet of cars. In the meantime, Lynn is interested in studying the possibility of restricting the idling of vehicles, which cause excessive emissions.

John promoted the idea of a "grand vision" for the greening of the City, especially on the South Side where there are large areas of pavement and buildings, but few trees. The City has regulations providing for trees to be planted as a part of new development, but existing neighborhoods are often without significant trees to help lower temperatures and return oxygen to the atmosphere. He noted that the National Wildlife Federation had an excellent paper on this subject, including relative costs, and recommended that everyone read it. He also supported adoption of the City Trail Plan and the promotion of pedestrian and bicycle movement within the City.

**Martin Luther King Park:** Andrew Goldman brought to the attention of Councilman Michael Colón that the design of the park appears backward with the play area in the sun and the garden area in the shade. Andrew offered to help correct this and also build a new elevated garden area since the existing wooden structure is in disrepair. He will try to contact Jane Persa and Chris Sule from the Parks & Recreation Department as well as local volunteers to see what can be done.

**Future Meeting:** Lynn contacted Ed Boscola, Director, Bethlehem Dept. of Water and Sewer Resources and Mark Stein, Chief Facilities & Operations Officer for Bethlehem Schools, regarding lead levels in water in public schools. The school district tested every school in 2 different years and all levels were very low. After discussion, the EAC decided to cancel the presentation on this topic by David Masur from PennEnvironment for our August meeting.

Meeting adjourned at approximately 9:00 PM.