



CITY OF GERMANTOWN TENNESSEE

1930 South Germantown Road • Germantown, Tennessee 38138-2815
Phone (901) 757-7200 Fax (901) 757-7292 www.germantown-tn.gov

Environmental Commission Meeting

Thursday, November 12, 2020 – 6:00 p.m.
Virtual Conference

MINUTES

Present:

Chairman Joe Skelley
Jimmy Davis
Linda Kaplan
Claudio Meier
Francoise Mireles
Scott Schoefernacker
Susan Threlkeld
Jayu Wagh

Staff:

Andy Sanders
Joe Nunes

ABSENT

Alderman Janda
Urania Erskine
Paul Mosteller
Bo Mills

CALL TO ORDER:

Chairman Skelley called the meeting to order at 6:00 p.m.

ESTABLISHMENT OF QUORUM:

A quorum for the Environmental Commission meeting was established.

ESTABLISHMENT OF NECESSITY OF CONDUCT ENVIRONMENTAL COMMISSION MEETING
ELECTRONICALLY

Assistant Director Andy Sanders read aloud the following Motion:

The members of the Environmental Commission will meet by electronic means to protect the public health, safety, and welfare of Tennesseans in light of the COVID-19 outbreak.

INTRODUCTION OF GUESTS:

There were no guests present.

CONSIDERATION OF MINUTES:

Motion to approve the October 08, 2020 Minutes by Susan Threlkeld, seconded by Jimmy Davis.



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ROLL CALL: Davis-yes, Kaplan-yes, Meier-yes, Mireles-yes., Schoefnacker-yes, Threlkeld-yes, Wagh-yes
Motion approved.

ALDERMAN LIAISON REPORT:
Alderman Janda was not present.

STAFF REPORTS:

Joe Nunes:

- Recycling volume down approximately 3.5% from last year. We are trying to raise the bar, so a marketing firm has been hired to assist with the development of a digital solid waste guide. This will be a comprehensive brochure covering all aspects of Germantown's collection guidelines as well as tips for reuse and reduction of materials and information about back yard composting.
- We would like to create a virtual educational program about recycling. The Environmental Commission's help would be greatly appreciated on this project.

Andy Sanders:

- Public Works met with Standard Construction to begin our Milling and Paving project for FY21 which includes several major thoroughfares.
- An article by Director Mills and Assistant Director Andy Sanders was published in the APWA Reporter Magazine concerning Germantown's hiring of service contractors to perform routine maintenance, saving both money and allowing the department to be proactive in our maintenance. The three main providers referenced in the article are National Water Services who oversees our well and pump maintenance program, Chris Hill Construction who has done two of our major water plant renovations, recently turning our chlorine fiberglass tank into a poly tank at the Southern Water treatment Plant, and American Tank Maintenance who we've contracted to maintain our elevated towers and who will soon clean the exterior and interior of our 500,000 tank.

COMMISSION MEMBER REPORTS:

Claudio Meier:

- Mr. Meier reported on hurricanes and how they are related to climate change and their characteristics that are related to climate change, their size, their path size, their speed and the amount of rain they produce. In April of last year, Mr. Meier attended a conference where scientists shared that they are expecting the intensity of rain to increase in our new warming climate. When air is warmer, it has a higher level of saturation; in the typical range of temperatures that is equivalent to approximately 6.5% more moisture per each degree centigrade or 1.8 degree Fahrenheit. What research has found is conditions exist where precipitation intensity can increase by a higher percentage than the 6.5% that is given by the saturation load for moisture, or the Clausius-Clapeyron Relationship. So in a world that is 2 degrees centigrade warmer, we can expect extreme rainfall events to produce 15-20% more rain.



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Scott Schoefnacker:

- University of Memphis just completed their third water quality and age dating sampling that began in 2018 at the Southern Avenue and Johnson Road well fields. This sampling looks at various geo-chemical constituents, metals, ions and organic compounds is done to be proactive to study trends in Germantown's water quality. Historically, there has been little to no modern water detected at the wells except for one well had traces of tritium in 2003 and 2011 as well some elevated nitrate concentrations. The COVID Pandemic has slowed age dating results for 2019 and this year's samples have yet to be submitted; fortunately, there have been no organic compounds detected.
- Tests for organic compounds are performed because just up gradient hydraulically in Collierville is the Carrier and Smalley Piper superfund sites. Carrier just came out with their five year review in September 2020. It was basically stated that additional ground water contaminant plume delineation was needed and optimization of remediation techniques. This contamination continues to be confined to Collierville but one of their wells exceeded the Maximum Contaminate Level (MCL) of Trichloroethylene (TCE).

Jayu Wagh:

- Researchers can't say if human caused climate change will mean longer or more active hurricane season in the future.
- A cafe in India is now the first zero-waste juice bar due to its novel way of serving juice to its consumers in fruit or coconut shells instead of plastic cups with straws. Some customers even consume the juice containers after they've finished their juice!

Francoise Mireles:

- PoreShield: An alternative sustainable surfacing for roadways produced by the engineering department at Purdue University in collaboration with the United Soybean Board. This roadway sealant is based primarily from soybeans. It has been applied on a large number of bridges in Indiana for the past couple of years. Each 200 bushels of soybeans treats one mile of a two-lane bridge which is the equivalent of 7.5 acres of soybeans for each mile treated. It is a very renewable alternative to traditional concrete sealant, the durability is good at approximately 10 years of protection, it increases the service life of the concrete more than five times, and it is safer and easier for application. All the components of the product is natural and the labor cost is about half of traditional products.

Dr. Jimmy Davis:

- Article from the American Chemical Society Magazine about plastic recycling.

Five ways to recycle plastic:

- Mechanical - plastics picked up at the curb are sent to recyclers that wash, shred, and re-pelletize them for reuse. This method produces recyclables that can't be used for food products because of contamination and because the recycling process degrades the integrity of the plastic.
- Gasification - Plastics and other waste, such as textiles and paper, are heated to form a gas consisting of a mixture of carbon monoxide and hydrogen that can be formed by chemists into any raw material.



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- Pyrolysis - Under oxygen-free conditions and temperatures above 400 °C, plastics are broken down into smaller hydrocarbons, such as diesel and naphtha, which can be used as fuels or be a starting point for new plastics.
- Depolymerization – Break down the plastic chemically into its components and then reform them into new plastics.
- Solvent-based processes - Solvent processes dissolve plastics into their components so impurities can be filtered out and the plastics reconstituted.

OLD BUSINESS

- Reappointment Applications are due by Monday, November 30, 2020

NEW BUSINESS

Motion to approve an unofficial holiday gathering on December 10, 2020, from 6:00 p.m. – 8:00 p.m. at the Farm Park instead of our usual Commission Meeting; Spouses are invited.

ROLL CALL: Davis-yes, Kaplan-yes, Meier-yes, Mireles-yes., Schoefnacker-yes, Threlkeld-yes, Wagh-yes
Motion approved.

ADJOURNMENT:

Motion to adjourn by Jayu Wagh, seconded by Scott Schoefnacker.

ROLL CALL: Davis-yes, Kaplan-yes, Meier-yes, Mireles-yes., Schoefnacker-yes, Threlkeld-yes, Wagh-yes
Motion approved.

There being no further business, the meeting was adjourned at 6:59 p.m.

Joe Skelley

Joe Skelley, Commission Chairman

Signature: 
Joe Skelley (Jan 26, 2021 11:21 CST)

Email: ujskelley@gmail.com