## Present

Committee members: Sue Begent, Judy Detrano, Gina Fischetti, Filomena Hengst, Kelly Kappler, Kim Nagy, Lauren Rosenthal McManus, and Councilman Wardell Sanders Members of the public: none

- I. The committee finalized 11/30 minutes and were given previous unapproved minutes for review
- II. Judy Detrano proposed a revised proof of the banners. Gina suggested changing "your" to "our"; agreed upon by the committee. Banners are proposed for the library (Ward will check in with head of library), City Hall and over the street. Judy will send out final design and Ward will take the next steps within a week.
- III. DEP meeting update (from 12/2)
  - a. On December 2, 2016, Councilman Wardell Sanders and Lambertville's Committee Against the Pipeline Chair Filomena Hengst met with officials of the New Jersey Department of Environmental Protection to outline the City's objections to the PennEast Pipeline Project and to learn about the DEP's role in reviewing the project. The City thanks the DEP and its officials for its time and attention to our concerns. Some notes:

-expressed our concerns about water supply

-learned about permitting process: public hearings, FERC approval expected in May 2017 with NJDEP permits taking approximately 6 months to 1 year, PennEast is at approximately 30% of surveying completed and NJDEP requires 100% surveying, USDOT supervises construction of pipeline and ensures safety of its placement and maintenance

- IV. HaltTalks update (from 11/30)
  - a. Sue Begent, Judy Detrano, Kim Nagy, Lauren Rosenthal McManus attended the HaltTalks event on 11/30 with speaker Professor Tullis Onstott
  - b. PennEast does not know the rocks in our area. A hydrocarbon project through the rocks could lead to arsenic poisoning for many years to come (Statistics and details Sue shared for inclusion in minutes)

# V. Set January dates

- a. January 4 at 8am, City Hall
- b. January 25 at 8 am, City Hall
- VI. Other Business
  - a. Write letter to DOT expressing our concerns about heavy haul traffic given truck ban on NJ29
  - b. Contact Suez regarding their plans to have an independent assessment of the arsenic risk and potentially write a letter to FERC requesting an independent assessment.
  - c. Find out if banners are allowed on Main St.
  - d. Schedule meeting with DRBC

## Upcoming meetings:

Jan. 4 at 8 am, City Hall Jan. 25 at 8 am, City Hall 30<sup>th</sup> November 2015, Ragos Arts and Auction House, Lambertville NJ Abbreviated Notes from Halt PennEast Fundraiser: Talk by Professor Tullis Onstott

Sue Begent (Lambertville Resident and lay person!)

https://www.princeton.edu/geosciences/people/onstott/

Lethal level of arsenic for humans: 1-10 days at a level of 5ppb Environmental standards: LC 50ppb (flowing water?) Standing (non drinking) water in NJ: Sppb

Arsenic contamination of wells across the US is a known issue. EPA is aware of 30,000 arsenic contaminated drinking water wells. The rate of failure of wells has been accelerating over the last 10 years

Bacteria in the ground play a key role in 2 important pipeline issues:

- 1. Release of arsenic when the pipeline passes through arsenic rich rock
- 2. Corrosion of the pipe itself leading to leaks and worst case, explosion

Professor Onstott reported that he and his team have been out to areas along the proposed PennEast route and have established that the bacteria required for arsenic liberation and pipeline corrosion are present (arsenic, iron and Sulphur cycling bacteria).

It is well accepted that arsenic liberation can be a serious issue around hydrocarbon projects. The proposed PennEast Route is planned through a significant amount of arsenic rich Passaic Shell rock as it comes down the Delaware river valley. Onstott specifically called out the rock above Frenchtown and Lambertville in relation to this issue.

#### "Rock containing arsenic should be an exclusion zone for major hydrocarbon projects"

Once liberated into ground water, arsenic can flow into rock fissures and aquifers, flow through water bearing zones and end up in our wetlands, streams, & creeks (https://en.wikipedia.org/wiki/Acuifer)

"there are places in our local area where the concentration of arsenic is as high as 800,000ppb" "When close to sole source aquifers...(these *projects*)...are a formula for environmental disaster".

Arsenic - and the bacteria- stay around a long time. Professor Onstott cited an example of a significant contamination that occurred in 1976 which was still present 30 years later - 2006 The PennEast proposed pipeline is large (36" diameter) and gas will pass through at extremely high pressure, which in natural gas pipelines, has a heating effect (10 degrees higher than ambient temperature). This increase in temperature can double or quadruple the activity of bacteria. An arsenic laden zone around a pipeline will widen and narrow with temperature fluctuations because of this.

When a pipeline company drills underneath an area to be protected - through arsenic containing rock e.g. under wetlands (- or Onstott did not call out this, it is my question - also under the Lambertville reservoir outflow pipe..our drinking water), maintenance requirements cannot be assessed as the pipe is underground, small leaks can occur. When arsenic is released under these conditions, it goes directly up to the surface, surrounding and contaminating the very thing it was supposed to protect and bypass.

The type of drilling used is HDD (horizontal directional drilling) <u>https://en.wikipedia.org/wiki/Directional\_boring</u>

### Onstott: "Drilling into these rocks (by this HDD method) liberates arsenic"

Another important bacteria-associated issue that Onstott highlighted, is related to serious damage to pipes that carry natural gas. Bacterial corrosion was a major related cause of the Texas Eastern Pipeline explosion in Salem Township PA in April 2016. Sulphate reducing bacteria had corroded the coating of the pipe (in the image on his slide the pipe surface was visibly pitted). Prior to explosion, the pipeline had been fully inspected, some corrosion seen and documented and remediation recommended in 2019. More thorough inspection of the entire pipeline after the explosion revealed 625 anomalies in 623 miles of pipe.

When you have miles of pipeline, is it is difficult to maintain and inspect all of it – and review is frequently inadequate. In areas where population density is low, risk to human life is relatively low. In NJ the population density is high.

Towards the end of his talk Professor Onstott was very clear about his view of the need for assessment beyond that performed by PennEast:

### "An independent entity should be involved in the assessment of arsenic risk in the rock above. Lambertville"

"The solution for Penn East? Take the pipeline out of an arsenic rich region"