PUBLIC COMMENTS SUBMITTED AT HIGHLANDS
COUNCIL MEETING ON JUNE 18, 2015

Pilgrim Pipeline and The NJ Highlands Council

Good afternoon and thank you for this opportunity to speak. My name is Jerome Wagner. I reside at 32 Hillside Terrace in Wayne NJ, where I am a pleased consumer of North Jersey District Water Supply Commission water. I worked for 30 years in environmental protection as an engineer. I am presently employed by Food & Water Watch, focusing of opposition to the Pilgrim Pipeline. Further, I have been an active member of the group named the "Coalition to Stop Pilgrim Pipeline" for the past year. The Coalition is made up of many state-wide and community groups.

This afternoon, I am speaking on behalf of Food & Water Watch.

I'd like to focus at this time on the constituency – the make-up – of crude oil, the toxicity of one particular constituent, and potential impacts to the state's drinking water supply.

Toxic Constituency of Oil: Crude oil, as extracted from the ground, is a mixture of many components. One class of constituents which is of particular concern is "BTEX" – benzene, toluene, ethylbenzene, and xylene. These are all aromatic hydrocarbons – being based on a ring of carbon molecules. (BTEX) Industry data on Bakken crude shows that these components make up on average about 3% by weight of Bakken crude – a small but not insignificant percentage. Overall, about 0.3% of Bakken crude is benzene. (Peacock, 2010)

All BTEX compounds have been assigned safety threshold values in drinking water. These have been set by the US EPA. The "maximum contaminant level" for benzene is 0.005 mg/l – otherwise stated as 5 parts per billion. (Basic Information about Benzene in Drinking Water, 2013) 5 parts per billion is a vanishingly small value. Further, the stated "maximum contaminant level goal" is Zero – Again – Zero. This goal is set so low because of the grievous health impacts of benzene – blood diseases and cancer are known to be caused by benzene.

While BTEX compounds are only slightly soluble in water, they are soluble to concentrations which exceed federal safe drinking water criteria (relevant data is provided with this statement). That is, water in contact with pooled oil could absorb BTEX to levels unsafe for human consumption. Water polluted with BTEX would likely require active treatment in order to restore safety and potability.

Based on the scant information presently available about the Pilgrim Pipeline: A pumped release (spill) from the southbound pipe could amount to almost 6,000 gallons – in a single minute! In that spill, there would be about 70 pounds of benzene. This amount is non-trivial – in fact, it is enough to contaminate 1.7 billion gallons of water to a point where the contained benzene would render it unsafe for human consumption (see "Computations", below). Otherwise said, that is the amount of water it would take to dilute 70 pounds of benzene to concentrations below hazardous levels. Again: Almost 2 billion gallons undrinkable from a 1 minute spill. How much before the pumps are actually stopped? How much more as the pipe passively empties? Or, how much more before remediation teams are in place and active?

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The documented combined capacity of the Wanaque and Monksville Reservoirs is about 37 billion gallons. (North Jersey District Water Supply Commission) A spill of Bakken crude in their watershed could render that full amount undrinkable in less than 30 minutes; further, let's recognize that those 37 billion gallons represent over 200 days' supply to the contracted communities (see "Computations", below).

Such a significant risk demands extraordinary prudence in any and all related decisionmaking.

Treatment of Tainted Waters: The removal of petroleum contamination from drinking water and the environment is a complex undertaking. A sequence of unit operations ranging from gravity separation, to filtration, to stripping, to adsorption with activated carbon might be required. These might have to be constructed on a formidable scale – at formidable cost - given the magnitude of supplies that are contracted out by the North Jersey District Water Supply Commission.

Personal Experience: I'll conclude by reflecting briefly on my own experience: For 30 years, I worked at a factory in the Southern Tier of New York. During that whole 30 year period, active groundwater remediation was being practiced. In this case, the contaminants were volatile organic compounds. During that time, about 80,000 gallons of VOC's have been recovered. (New York State Department of Environmental Conservation) Untold expenses – certainly in the millions of dollars - in capital, operating expenses, legal support, consultant work, and public trust – have resulted to the corporation – all to remove just 80,000 gallons of VOC's. That remediation effort continues to this day.

In Closing: Any accidental release of oil within the watershed of the Wanaque and Monksville Reservoirs – or to aquifers which supply municipal wells - could render those crucial water resource unavailable for an extended period of time.

Thank you for your attention. Good day.

Jerome Wagner 607-348-5773

Appendix

Physical Data

Component	Specific Gravity	Solubility in Water	EPA MCL[1]	EPA MCLG[2]	Treatment[3]
Bakken Crude	0.70 - 1.03	--	--	--	--
Benzene	0.87	1,790 mg/l (15°C)	0.005 mg/l	0	Stripping and GAC
Ethylbenzene	0.87	150 mg/l (20°C)	0.7 mg/l	0.7 mg/l	GAC
Toluene	0.87	520 mg/l (20°C)	1.0 mg/l	1.0 mg/l	Stripping and GAC
Xylenes	0.86	~160 mg/l (25°C)	10.0 mg/l	10.0 mg/l	Stripping and GAC

"MCL" = "Maximum Concentration Limit"
"MCLG" = "Maximum Concentration Limit Goal"
"GAC" = "Granular Activated Carbon"
"Stripping" = "Packed Tower Aeration"

Sources: Wikipedia, ATSDR

[1,2,3] (Basic Information about Benzene in Drinking Water, 2013)

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Computations

What is the Proposed Flowrate of Product in Each Pipe?

Documented Flow in each of South-bound and North-bound Pipes is 200,000 barrels per day; Assume this flow is uniform over a day's period.

$$\frac{200{,}000\ barrels}{day} * \frac{42\ gallons}{barrel} * \frac{1\ day}{24\ hours * 60\frac{minutes}{hr}} = 5{,}833\ \frac{gallons}{minute}$$

How Much Water Would 70 lbs of Benzene Contaminate to Greater than EPA's Maximum Contaminant Level of 5 ppb?

$$70\ lbs\ Benzene * \frac{10^9\ Parts\ Water}{5\ Parts\ Benzene} * \frac{1\ gallon\ Water}{8.34\ lbs\ Water} = 1.7\ billion\ gallons\ of\ Water$$

How Long Would Pumped Flow Need to Continue to Contaminate - with the Carcinogen Benzene - all The Water That the Monksville and Wanaque Reservoirs Hold When Full?

$$\frac{37\ billion\ gallons}{1.7\ billion\ gallons\ contaminated\ per\ minute} = 22\ minutes$$

How Many Days of Supply is Contained in 37 Billion Gallons?

$$\frac{37{,}000\ million\ gallons\ of\ Water}{173\ million\ gallons\ of\ Water\ per\ day} = 214\ days\ of\ supply$$

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Comments to the Highlands Council – June 18, 2015

My name is Deborah Post, harmed landowner Chester Township.

Your draft equity compensation rule abandons receiving areas and puts in unambiguous black and white what we all have always known: this Council has no intention of honoring its mandate to create a TDR program to compensate harmed landowners.

For a decade talk has included the establishment of Highlands TDR receiving zones, the critical and necessary component for any TDR program to develop a functioning and efficient marketplace. TDR stands for transfer of development rights and by definition requires development to be transferred from one space to another, the receiving zone.

This Council's purported plan does not include receiving zones. How can a TDR program not have a receiving zone? Answer: it can't.

Your plan **admits** there will be no receiving zones, admits that there will be no just compensation for the $6 billion of lost property values, admits that the landowners should forget any expectations of compensation, and admits that this Council is satisfied to leave the landowners burned. The plan is a loud screaming admission that this Council has no intention of seriously working toward compensation of property value losses.

Your plan is nothing more than a public relations effort to create the appearance of just compensation being forthcoming when everyone on this Council knows that is a lie. This rule was designed only to spin well with the media, to sound like you are doing something, when you are not.

The rule contemplates just compensation being paid from a bank that has no money and has no reasonable expectation of ever having any money. The bank is an empty Potemkin illusion. To those who have objected to my past critique of your biased staff, the plan that compensation will be paid from an entity with no capital is stark naked proof of bad faith.

Mitigation payments are to raise the $6 billion of compensation needed? Do you really think the Highland farmers are pea-brained fools?

The rule also contemplates this Council partnering with sub-and sister-organizations of the Highlands Coalition, the heavily financed environmental lobby who never misses a chance to insure that landowners are and remain burned. Your rule proposes that the easements be owned, monitored and enforced, not by this Council, but rather by the environmental extremists, who will be empowered to dictate to those Highlands landowners who are the victims of the largest land grab in our nation's history. Seriously? No rational landowner will sign such an easement document, so this Council will be able to argue "gee, we offered to pay them and they declined". Whoever on this Council or staff came up with that mischief may be more evil even than the drafters of the Highlands Act itself.

Public Comment - Thursday, June 17 2015 (Lebanon Township)

My name is Joady Anderson, we own a 74 acre deciduous tree farm in Hunterdon County all in the Preservation Area. We have worked under a Woodland Management Plan more than 20 years, are a certified NJ. Tree Farm, and have Farmland Assessment.

The NJ. Highlands Water Protection and Planning Act has been in effect for almost 11 years now — I want to emphasize the words "Water Protection".

I am quoting from an article from the American Tree Farm System Magazine —
"Forests are nature's water filter, capturing contaminants before they reach rivers and streams, holding the soil in place, minimizing erosion and sediment run-off. Healthy forests give us much of the abundant clean water we depend on."

And yet, there is no dedicated funding to compensate people whose forested land has been "preserved" by this act. According to the SADC under the Farmland Preservation Program, in 2007 they modified their focus almost exclusively on tilled farm land. There is nothing for a deciduous tree farm.
In the Highlands Area, the transfer of development rights program was supposed to provide funding BUT, as I was told, this needs a lot of work, it is barely off the ground, and we will be long dead and gone if this is ever realized.

We were told by a Registered NJ Forester we are the "Foster Children" for the tremendous inequity and outrageous treatment of tree farmers resulting from the Highlands Act - an "honor" we do not appreciate at all.