## **Kuether, Molly**

From: Sent: To: Subject: Bohl, James Friday, December 16, 2016 9:55 AM Kuether, Molly FW: Lead line replacement article.

One more....please share this email with WQTF members for January. THNX

From: Peter Maier [mailto:pmaierp@gmail.com]
Sent: Wednesday, December 14, 2016 2:59 PM
To: Hamilton, Ashanti; Bohl, James; dbehm@journalsentinel.com
Subject: Lead line replacement article.

Dear Sirs,

Thought you might be interested in forwarded emails. If you like to know more about lead, I suggest you google "WHO, lead in drinking water". A PDF document with lot of information about lead and public health, not only in the US but worldwide.

Lead (and pewter) is for centuries used for dinnerware and waterlines, because it is corrosion resistant. In excess (like so many other elements) it is not healthy, but as far as public works programs, there are much worse problems, one being that EPA never implemented the CWA and open waters still are used as urinals. Consequently, people still drink their upstream neighbor's urine, may be not direct a public health problem, but not very appetizing. The fact that our open waters still are full of DBP's (Disinfection By Products) due to unnecessary disinfection of treated sewage, however is a public health problem. DBP' can be carcinogenic or endocrine disruptors, this while EPA in 1978 dropped this unnecessary disinfection practice, as it is not preventing waterborne diseases, expensive and damaging to aquatic life. While dropped on a federal level, most States unfortunately kept this requirement. Although people is interested in drinking water, they do not seem to care what is happening to their drinking water source.

Call me if you have any question, Regards and happy holidays, Peter Maier, PhD,PE <u>Tel:(435)882-5052</u> www.petermaier.net

Begin forwarded message:

From: Peter Maier <<u>pmaierp@gmail.com</u>> Date: November 18, 2016 at 9:24:41 AM MST To: <u>mayor@cityofflint.com</u> Cc: <u>rfongert1@mlive.com</u>, <u>gellison@mlive.com</u> Subject: Fwd: Explanation what happened in Flint.

Dear Mayor Weaver,

First, if you google WHO, lead in drinking water, and read their PDF background document for WHO's lead in drinking water guideline, you will read that more than 80% of the daily lead intake comes from food and the dirt (dust) in the air. I

never read anything about this in any newspaper article, even though many reporters that are writing articles are aware, but for some reason will not use this information. Probably better for their paper's bottomline to keep stoking this fire.

Forwarded an email to one reporter, explaining what happened in Flint when the water was switched. Apparently science and engineering is not important any longer. The sad part is that this issue destroyed the life of several people and is only costing the American taxpayer millions.

How bad has been the information to the public? A recent youtube video showed one of your residents proving with a cheap TDS meter (indicating minerals) showing that the water in all the water bottles, she was given, still had lead in them. Clearly unaware, what this meter was and that a single proper lead test will be very costly. Was that type of meter given to the public if water was safe to drink?

But than, what can you expect, when you need to be qualified and certified to cut somebody's hair, while you do not need any qualifications or experience to become the nation's president. Why do we even need an education system?

Regards, Peter Maier,PhD,PE (for what that is worth nowadays) <u>Tel:(435)882-5052</u> www.petermaier.net

Begin forwarded message:

From: Peter Maier <<u>pmaierp@gmail.com</u>> Date: September 4, 2016 at 10:57:15 AM MDT To: Ron u Cc: Subject: Explanation what happened in Flint.

Ron,

Since EPA never implemented the CWA, by ignoring nutrients (urine) in sewage, all rivers are polluted, including the Flint River. When the city switched over to use the water from the Flint River, it probably changed the pH and this started to dissolve the earlier formed scale in the distribution system. This mostly calcium scale will capture metals, that consequently also are released. Since the water also has more nutrients, it also stimulates the growth of bacteria, especially where water is more stagnant (legionnaire). Sure you can use chlorine, but that often is not so effective as is claimed, while it, with the still present organics, will create DBP's.

In spite of what some professionals will claim, water chemistry is very complex, as so many chemicals are involved. It especially becomes very hard to predict when crystallization (scale) is involved.

Our present water treatment processes have been developed more than a century ago. Then, the solution was simple, when you have bacteria in the water you dump in chlorine and when you can measure a certain residual chlorine level, the water is save. But that is not true, besides the fact that you created all the DBP's of which some are carcinogens or endocrine disrupters.

The DBP's, especially THM's (TriHaloMethane's) in other countries led to look for better water treatment, so there would not be any nutrients left for bacteria. This has been so successful that they now do not use any chlorine any longer.

Furthermore, when EPA implemented the CWA in 1972, it set limits for bacteria, thus requiring sewage treatment plants to start disinfecting their treated sewage. Using chlorine was the least expensive and easiest, since, instead of doing

expensive bacteria tests, they could use the residual chlorine test, many swimming pools use. With still a lot of organics in treated sewage, this caused DBP' of which THM's received most attention, as it was contaminating drinking water.

In 1978, advised by CDC and GAO that this practice was not preventing waterborn diseases and damaging to the environment, EPA dropped the disinfection requirement, but sadly left it up to individual states to also drop it or maintain it. Most states maintained the disinfection requirement, with as result that our sewage treatment plants still spew these DBP's into our open waters, while nobody seems to care.

Admitting that mistakes were made, while claiming to know everything, in spite of what happens to our environment and our drinking water, still seems to be impossible. Much easier to blame others and than take legal action, that again will cost the taxpayers millions, while our open waters keep deteriorating.

The CWA has resulted in many legal lawsuits, costing millions of taxpayers money, while none even considered the fact that the Act failed, because of a faulty applied test. This hopefully soon will change when a federal judge in New Orleans will decide if nutrient pollution should have been covered under the CWA.

I often wonder what the media would have done if our interstate highway program only would have connected 20 states with two-way roads. This is what happened to the CWA, the second largest federally funded public works program. Fish can not talk, but algae shure are showing us what is wrong. Regards,

Peter Maier,PhD,PE <u>Www.petermaier.net</u> Tel:(435)882-5052