
From: Wurfel, Brad (DEQ)
Sent: Wednesday, January 28, 2015 3:12 PM
To: Prysby, Mike (DEQ)
Subject: RE: Flint issue DEQ points. Please check me for message accuracy?

Thanks. You rock.
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From: Prysby, Mike (DEQ)
Sent: Wednesday, January 28, 2015 3:09 PM
To: Wurfel, Brad (DEQ)
Subject: Re: Flint issue DEQ points. Please check me for message accuracy?

Brad
Printed it out....will read and let u know ASAP

Sent from my iPhone

On Jan 28, 2015, at 3:06 PM, "Wurfel, Brad (DEQ)" <WurfelB@michigan.gov> wrote:

Terry, all good and thanks for working these up. Been rebriefed by our staff, so let me throw in some things that are pertinent from that point.

Following the formal approval of Flint into the KWA, DWSD sent Flint a letter saying their contract was thereby terminated (at some certain date). According to our folks, Genesee County has been using DWSD water without a contract for years. But Flint took the letter to imply a water cutoff, and promptly turned to DEQ with a proposal to use the Flint River (their historic backup system).

This proposed shift put the city in the business of water production, where they historically had been in the business of water transmission. DEQ approved the use of the river as a source, believing that with the proper conditions it could be managed. Several municipalities around the state use surface water supplies (rivers): Blissfield near Monroe, Manistique, and Alma to name a few.

The city constructed the facility and DEQ approved it April / May 2014

There were some initial hiccups. Last summer, there were a couple of 'boil water' notices issued. One for a water test that showed e. coli, one for a break in the water main.

The challenge to using the Flint River as a source is that the condition of the water is variable and changes with season and weather. It has substantially more organic matter than deep lake sources like Lake Huron. This organic matter is mobilized by high water events, and warm weather also can account for more organic material in the water.

The treatment of the organic matter is done with chlorine. One might conclude that the perennial answer is just to use more chlorine to achieve water safety. However, at some point on the continuum, the chlorine and organic matter create TTHM – total trihalomethanes – as a byproduct. When the standard for those is exceeded over several consecutive quarters of testing, the operator of the system is required by law to issue public notice and submit an approved plan for addressing the situation.

You'll note that this regulatory approach means TTHM testing is done quarterly. That means people who use the system are exposed to TTHM for several months before the public notice is required. It's because TTHM is a chronic health threat. Over the long term (measured in decades), continued exposure can contribute to some known health problems. Put in context, the EPA (who established the standard and the rule) estimates this rule prevents an estimated 280 bladder cancer cases each year ... out of more than 330 million people who use public water supplies around the country.

It's not nothing. State and federal law requires quarterly testing for TTHM and that the public be informed of it when three quarters' worth of consecutive testing shows elevated TTHM levels, and they must develop a plan to address it. But it's not like an eminent threat to public health like e. Coli or even coliform bacteria, which require immediate public notification and response and are part of daily / hourly testing of public water supplies.

It's clear the nature of the threat was communicated poorly. It's also clear that folks in Flint are concerned about other aspects of their water – taste, smell and color being among the top complaints.

The Safe Drinking Water Act requires public water supplies be tested for more than 90 toxins and pathogens. The act, and the program here in Michigan, work to ensure that water is safe to drink. The act does not cover aesthetic values of water. Here are some factors affecting the aesthetics of water in Flint.

1. It's the Flint River. The water supplied by DWSD historically came from Lake Huron. It's softer. With hard water, you get a different flavor and feel. It's why General Motors suspended use of Flint Water