From: Tammy Daly <tammyldaly@gmail.com>
Sent: Thursday, March 1, 2018 5:26 PM
To: Valerie Wolford <Communications@cityofgreen.org>
Cc: Molly Kapeluck <Mkapeluck@cityofgreen.org>; Lisa Sexton <lsexton@cityofgreen.org>; Diane Calta <dcalta@cityofgreen.org>; Barbara Babbitt <Bbabbitt@cityofgreen.org>; Stephen Dyer <sdyer@cityofgreen.org>; Justin Speight <jspeight@cityofgreen.org>; Chris Humphrey <Chumphrey@cityofgreen.org>; Matt Shaughnessy <Mshaughnessy@cityofgreen.org>; Rocco Yeargin <Ryeargin@cityofgreen.org>; Bob Young <byoung@cityofgreen.org>; Gerard Neugebauer <GNeugebauer@cityofgreen.org>
Subject: Re: Well Water Contimindation from HDD

1. The FEIS lists HDD drilling in Green happening at Nimisila Reservoir. Absolutely unfortunate for that body of water which flows into Portage Lakes and unfortunate for the homeowners' whose wells' water flow runs nearby. There will also be drilling to go under many roads in Green. Though not HDD, they will still use other boring techniques: driving, piercing, dry boring, auger and slurry boring, pipe jacking and tunneling, impact moling and/or ramming and pipe bursting. The risk of dry boring does not carry as great of a risk for well contamination as HDD, however there is concern that it will disturb the water flow and possibly divert water away from wells if the water flows towards the easement. There are so many variables. Bottom line, look at the water flow for wells around HDD and road boring. With a health issue, you should always err on the side of caution; in this case recommending wide spread water testing.

* Diesel Fuel found in Rover's Drilling Mud: 2 million gallon fluid spill from drilling
http://www.naturalgasintel.com/articles/110670-ferc-troubled-by-diesel-fuel-discovery-in-drilling-mud-from-rover-spill-launches-probe\\

* Sunoco Pipepline: Well tests positive for Benzene after construction accident.
https://www.ldnews.com/story/news/local/2017/10/05/well-tests-positive-contaminates-after-pipeline-construction-blast-w-cornwall/733351001/

2. Guidance For Monitoring Effects of Gas Pipeline Development on Surface Water And Groundwater Supplies
* Tier 3 water tests
* Contamination Zones 1, 2, 3
http://www.downstreamstrategies.com/documents/reports_publication/water-supply-monitoring_8-23-16.pdf

The Pennsylvania Department of Environmental Protection (PADEP) analyzed the risk to public and private water supplies.
5.2 RISKS TO WATER SUPPLIES

5.2.1 PRIVATE GROUNDWATER WELLS

Potential HDD [horizontal directional drilling] Impacts HDD for pipelines usually occur at depths less than 100 feet, which could include the crossing of superficial/shallow aquifers. The

primary potential impact to groundwater is the migration of drilling fluid away from the HDD drill path. Specifically, drilling fluid expended downhole will flow in the path of least resistance. While the path of least resistance is typically the bore hole itself, it may instead be an existing fracture, fissure, or formation opening in the soil or rock substrate. When this happens, circulation can be lost or reduced and drilling fluid could enter the groundwater table that could be used by private groundwater wells.

Public surface water supplies:

5.2.3 PUBLIC WATER SUPPLY SURFACE WATER INTAKES

Potential Hazardous Material Spill and Encounter Impacts
Hazardous material spills and encounters with unanticipated contaminated soil has a potential to impact surface waters that may be upstream and in or along a surface water with a public water supply intake. Work with diesel run equipment is often carried out adjacent to, and within wetlands, waters, and floodways. A spill could result in a direct and immediate impact.

Potential HDD Impacts

HDD fluid follows the path of least resistance and may leave the bore hole through a variety of geologic anomalies. The environment may be impacted if the fluid inadvertently returns to the surface at a location on a waterway's banks or within a waterway or wetland. If the fluid cannot be adequately contained, it can mix with surface water, dramatically increasing turbidity, and flow downstream. If this turbid flow reaches a surface water intake, then the public water supply could be adversely affected.

EPA Certified Well Water Labs

http://epa.ohio.gov/Portals/28/documents/labcert/Chemical%20Labs.pdf

On Thu, Mar 1, 2018 at 12:20 PM, Valerie Wolford <communications@cityofgreen.org> wrote:

Tammy,

Thanks for reaching out to the City with your question. The Nimisila Reservoir is not a source of drinking water.

Also, I wanted to let you know that the administration is working on answering your questions from Tuesday's City Council meeting. As for your concerns below, could you please send us your sources for this information, so we can address these. We, like you, want to make sure we share the most complete information.

Thanks,

Valerie