Alaska Department of Environmental Conservation
Spill Prevention and Response Division
Contaminated Sites Program

Contaminated Groundwater Advisory
North Pole Piped Water Expansion

The Alaska Department of Environmental Conservation (ADEC) is providing this contaminated groundwater[1] advisory to property owners within the North Pole piped water expansion area. Some private water wells within this area draw groundwater that has been contaminated by sulfolane and/or per- and poly-fluoroalkyl substances (PFAS). This Advisory explains precautions to help residents avoid unintentional contact with or spreading of contamination.

Description of Contamination: Releases of sulfolane at the former North Pole Refinery contaminated the groundwater throughout much of the City of North Pole and beyond the city boundaries. The sulfolane contamination affects many residents, homeowners, and landowners and is expected to remain in the groundwater for many years. The area of groundwater carrying sulfolane is approximately 2 miles wide, 3.5 miles long and over 300 feet deep. The sulfolane plume is not static. It continues to gradually migrate towards the north-northwest, and contaminant concentrations in groundwater wells may change over time.

The State has recently determined that historical releases of PFAS (chemicals used in some fire-fighting foams) at the former North Pole Refinery have also contaminated some of the groundwater in the North Pole area. Groundwater sampling is ongoing, and the extent of PFAS pollution has not yet been delineated.

Water Use Advisory: ADEC advises eligible property owners to connect to the expanded water utility service.

- The 2017 settlement agreement between the State of Alaska, Flint Hills Resources, Alaska (FHRA), and the City of North Pole will extend the city's piped water system to include the area currently impacted by sulfolane along with areas expected to be impacted in the future.

- Connecting to water utility service will protect the owner and anyone else on the property from any health effects that could be caused by exposure to contaminated well water.

ADEC similarly advises against using untreated, contaminated well water after a property is eligible for connection to the water utility service.

- Ceasing use of untreated, contaminated well water reduces spreading the pollution and eliminates human exposure. The sulfolane plume is not static. Concentrations in wells can change over time, and the extent of PFAS pollution in the groundwater is still uncertain. Understanding of the toxicity of these chemicals is also still evolving, with long-term toxicity studies on sulfolane pending and new cleanup levels for PFAS recently proposed. To best prevent spreading these chemicals to places where people might be exposed to them, ADEC is seeking community assistance in ceasing spread of chemicals from untreated, contaminated groundwater use.

- To avoid spreading the contaminants and help the community minimize additional impacts, owners are advised to cease future use of their existing well and to not construct new wells unless concentrations of sulfolane and PFAS are below levels of concern. ADEC is available to help owners with this determination and will provide guidance at the December 5, 2018 Open House.

Monitoring: Groundwater samples are being collected periodically (generally annually) from some private water wells to track movement of the contamination. ADEC may request access to your water well by the State of Alaska, FHRA, Williams Alaska Petroleum, Inc., and/or agents acting on their behalf for purposes of collecting groundwater samples and monitoring the groundwater contamination. Monitoring parties will always notify you prior to the desired sample date and work with you to sample during mutually agreeable times.

For additional information, please contact ADEC at 907-451-2143.

[1] The term, groundwater, refers to water stored under the surface of the ground in the tiny pore spaces between rock, sand, soil, and gravel. The term, well water, refers to groundwater that is obtained through a supply well.