February 2018 Update on
North Pole Public Water System
Expansion Project

By the Alaska Department of Environmental Conservation

In 2009, sulfolane was detected in drinking water wells near the North Pole Refinery, about 15 miles east of Fairbanks. Under DEC oversight, Flint Hills Resources Alaska (FHRA), owner of the refinery, responded quickly by providing affected residents and businesses with alternative drinking water and initiating an extensive characterization effort. The sulfolane groundwater plume is currently approximately 2 miles wide, 3.5 miles long and over 300 feet deep, and continuing to migrate to the north-northwest.

FHRA and the State of Alaska announced on February 7th, 2017, that they will be working with the City of North Pole to significantly expand their piped public water system to provide sulfolane-free drinking water to residents impacted by the sulfolane groundwater plume. On February 25th 2017, an estimated 100 people attended a Community Open House, held at the North Pole Plaza. Attendees from the area talked with representatives from the DEC, FHRA and the City of North Pole regarding specifics of the project. On February 24th 2018, there will be another Community Open House at the North Pole Plaza to provide updated information and another opportunity for discussion about the project.

Current Events – Construction Begins Spring 2018

Stantec, an international engineering firm with a local office in Fairbanks, was contracted to design the piped water system expansion. The design is complete, and Exclusive Paving has been contracted to construct the main water lines. Surveying and land clearing began in February 2018, and pipe installation is scheduled to begin along the City’s northern boundary in March 2018.

Construction of the main water lines is scheduled to occur in two phases in 2018 and 2019. The 2018 schedule calls for the following:
- installing water mains in the area west of the city and south of the Richardson Highway;
- installing water mains just north of the Richardson Highway;
- constructing a pump house on Peridot Street; and
- construction upgrades at one North Pole Utility.

These areas are identified as Zones 1 and 2 on the Map on page 4 of this Fact Sheet. Water main lines not installed in 2018 (Zones 3 and 4) will be completed in 2019. The city is developing the specifications that will allow individual properties to be connected to their new main water lines. Individual property water hookups are scheduled to begin in 2019 after receiving State regulatory approval.
Property owners will be notified when they are eligible to connect.

Exclusive Paving, the construction contractor, will notify local residents and businesses prior to beginning construction in neighborhoods. Updated project information is available at the following locations:

- Exclusive Paving’s project Facebook page: fb.me/2018watersystemexpansionproject.
- The City of North Pole’s project website: www.northpolealaska.com/projects.

With expansion of the piped water system, the alternative water supply (AWS) program is being phased out. Alternative water will continue to be provided to properties with sulfolane detections and properties potentially in the migration path of the sulfolane plume until the expanded piped water system is available for connection. For properties with an AWS, FHR will work with them to transition to the public water system as it becomes available.

**Continued Oversight**

DEC will continue regulatory oversight of contamination at the former North Pole Refinery. The piped water system provides the most comprehensive means to eliminate exposure to sulfolane in drinking water while research continues to address knowledge gaps regarding sulfolane toxicity. Groundwater monitoring of the sulfolane plume will continue during and after construction of the piped water expansion. This monitoring will focus on the plume boundaries to track the sulfolane plume expansion and include monitoring of buffer zone properties for protection from potential exposure to sulfolane in drinking water. In the event the sulfolane plume migrates beyond the expanded service area, provisions are in place to supply clean alternative water to additional impacted properties if sulfolane in a private drinking water well exceeds a protective level, currently set at the U.S. Environmental Protection Agency’s Regional Screening Level of 20 parts per billion.

**Area of Expanded Public Water**

The design phase of the North Pole piped water expansion project began shortly after the February 2017 agreement. The Stantec engineers worked with representatives from FHRA, the State, and the City of North Pole, to prepare the design documents for the project. The design was completed in October and received engineering review by the DEC Drinking Water Program. The City of North Pole will be the contract manager for the construction phase, with construction slated to begin in Spring 2018.

Milestones from the design phase are listed below:

- An in-depth property review was conducted by the design team to finalize the number of service connections, currently estimated to be 706. The boundaries of the service area have not changed since the February 2017 agreement and include all properties identified as eligible at that time. The expansion area includes properties impacted by the sulfolane plume, both within the City of North Pole and outside the city limits, including the following subdivisions: Garden, Riddle Estates, Poodle, Pine Stream, Steelhead and Sorores.

- The project will include approximately 35 miles of new pipe. Most of the new pipe will be constructed of high-density polyethylene (HDPE).

- Land has been purchased for an additional water reservoir and pump station along Badger Road.

- Stantec is working with a subcontractor, R&M Consultants, on right-of-way acquisition throughout the project area. Most of the easements necessary for new piping trenching already exist; however, there are a number of new easements to be acquired. This has been an ongoing process since summer 2017. There are also many private properties with existing easements the project intends to utilize. If you have questions about easements across your property, please see the Contacts on page 3.
Piped Water Connections and Costs

As outlined in the February 2017 agreement between the State of Alaska, FHRA, and the City of North Pole, the public water expansion project will not exceed $100 million. The agreement also includes a $1 million Operations Fund to the City of North Pole to fund the initial operation and maintenance of the finished pipeline system. Interim allocation for funding the project is split, with FHRA paying 80% and the State of Alaska paying 20%. This interim allocation may change pending continued litigation against Williams, the former refinery owner.

Costs of installing service lines are covered in the February 2017 agreement. Property owners identified as eligible in the agreement will be offered connection to the water system free of charge. In addition, they can receive a $2,000 credit on their utility bills and payment of the $75 deposit fee if they connect. According to the City of North Pole, this credit should cover an average residential utility water bill for two to three years depending upon usage. Alternative drinking water will continue to be provided until the piped water extension is available for connection.

Ensuring Clean Water: DEC’s Drinking Water Program

DEC's Drinking Water Program requires public water systems to be in compliance with state and federal drinking water regulations and will be the regulatory entity to review and approve the design of this piped water expansion project. The City of North Pole's public water system is regulated by the State's Drinking Water Program.
Area of the North Pole Water Distribution System Expansion, with zones identified for phased construction.

Legend
- Pump House / WTP
- Proposed Water Pipelines
- Existing Water System
- Road
- Highway
- Railroad
- Approximate Sulfolane Isopleth Regardless of Depth in ug/L
- Water Bodies
- City of North Pole Boundary
- Service Lots

Zone 1: 2018 Construction
Zone 2: 2018 Construction
Zone 3: 2019 Construction
Zone 4: 2019 Construction

Construction dates are approximate.

Water Treatment Plant Upgrades 2018-2019 Construction
Pumphouse and Reservoir 2018 Construction

City of North Pole Boundary
Service Lots
Zone 1 - 2018 Construction
Zone 2 - 2018 Construction
Zone 3 - 2019 Construction
Zone 4 - 2019 Construction

Construction dates are approximate.