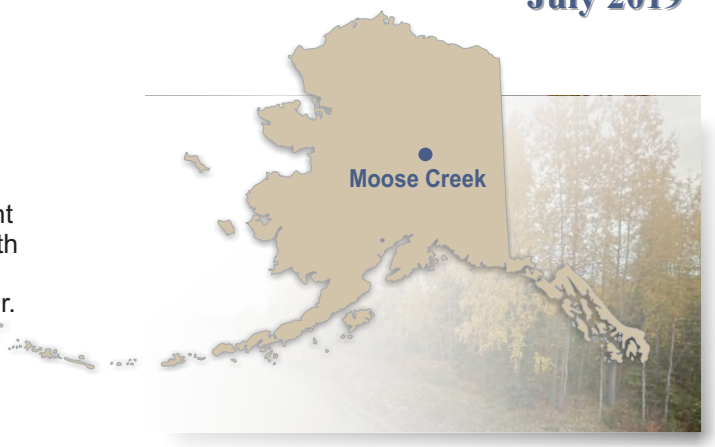
Eielson Air Force Base
Installation Restoration Program Update
Update on USAF Response to PFOS/PFOA in Community of Moose Creek, Alaska

July 2019

The Air Force is Committed to Protecting Human Health and the Environment

The United States Air Force (USAF) mission is to Fly, Fight and Win and we are committed to protecting human health and ensuring mission activities do not impact installation and supporting communities' access to safe drinking water. We have a proven track record of resolving contamination issues and continue to maintain an open dialogue with communities, regulators, and other stakeholders.



Status Update on Temporary Systems

Since the discovery of perfluorooctanesulfonic acid (PFOS) and perfluorooctanoic acid (PFOA) in the groundwater of the community of Moose Creek, the USAF has supplied bottled water to all the residents of the community, under an emergency action. Temporary water supply systems were then installed under what is called a Time Critical Removal Action (TCRA). The USAF has installed 164 temporary supply systems, either drinking water treatment or storage tanks for the residents of the community of Moose Creek. All properties who have requested a temporary water supply system have had their installations completed. The USAF will continue to monitor and collect water samples from residences with treatment systems and deliver water to residences with storage tanks to ensure safe drinking water is available.

Status Update on Long-Term Water Supply

PFOS and PFOA are treated as pollutants or contaminants under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The USAF remedial action for these contaminants follows this process. The main steps are shown in Figure 1.

The USAF is conducting an Expanded Site Inspection at Eielson AFB and the surrounding area to identify the extent of PFOS/PFOA contamination. However, an accelerated program to provide a long-term solution for a safe and reliable drinking water supply for the residents of Moose Creek is also being conducted, this is called an interim solution. The resulting interim remedial action will only address the issue of supply of safe drinking water.

The CERCLA process will continue to investigate contamination from PFOS and PFOA and this will be addressed by separate studies that will result in the Final Record of Decision (ROD). This interim remedial action will however provide a permanent solution for the supply of safe drinking water to the community of Moose Creek.

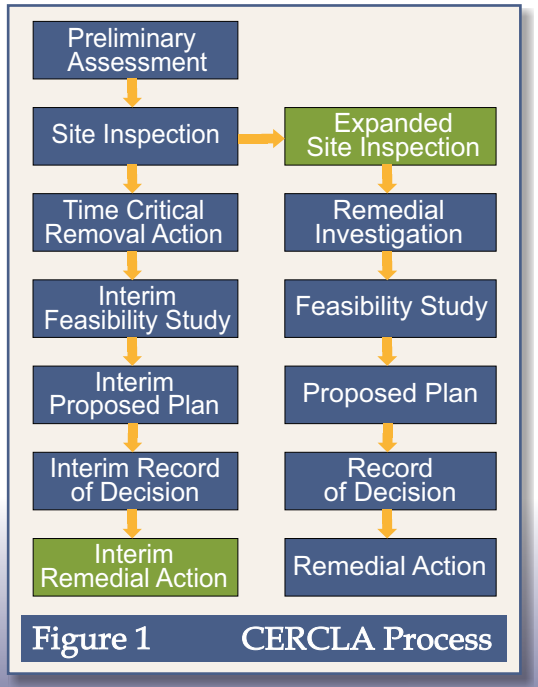


Figure 1 CERCLA Process

Actions to Date

An **Interim Feasibility Study** evaluated various long-term drinking water solutions. The study identified seven remedy alternatives that meet the nine criteria specified in the National Contingency Plan (NCP). The alternatives were presented to the public in July 19, 2017.

An **Interim Proposed Plan** was developed by the USAF to present the USAF's preferred alternative evaluated in the Interim Feasibility Study. The preferred alternative is to supply potable water from the City of North Pole, with a local water distribution system to each property with an existing water well. The Interim Proposed Plan was presented to the public on April 23, 2018 and comments collected and considered.

An **Interim Record of Decision** (I-ROD) was prepared, that documents the selected remedy for the community of Moose Creek. It was finalized by the USAF in June 2019 with concurrences from the US Environmental Protection Agency (USEPA) and the Alaska Department of Environmental Conservation (ADEC).

The Main Components of the Selected Remedy:

1. Provide a new water supply from the City of North Pole Water Treatment Plant to the community of Moose Creek. The main components include: a new water main from North Pole, a local distribution system and local connections to each affected property with an existing water well. The new water supply system will be maintained and operated by the City of North Pole;

2. Remove the temporary water supply equipment installed as part of the TCRA. This includes water tanks and granular activated carbon systems and carboys,

3. Establish land use controls to prevent the use of contaminated groundwater. The USAF will petition the Alaska Department of Natural Resources to define and establish a Critical Water Management Area (CWMA); and environmental covenants will be negotiated with all impacted real properties owners and recorded in accordance with the Alaska Uniform Environmental Covenants Act (UECA). The CWMA and environmental covenants will preclude use of untreated, contaminated ground water.

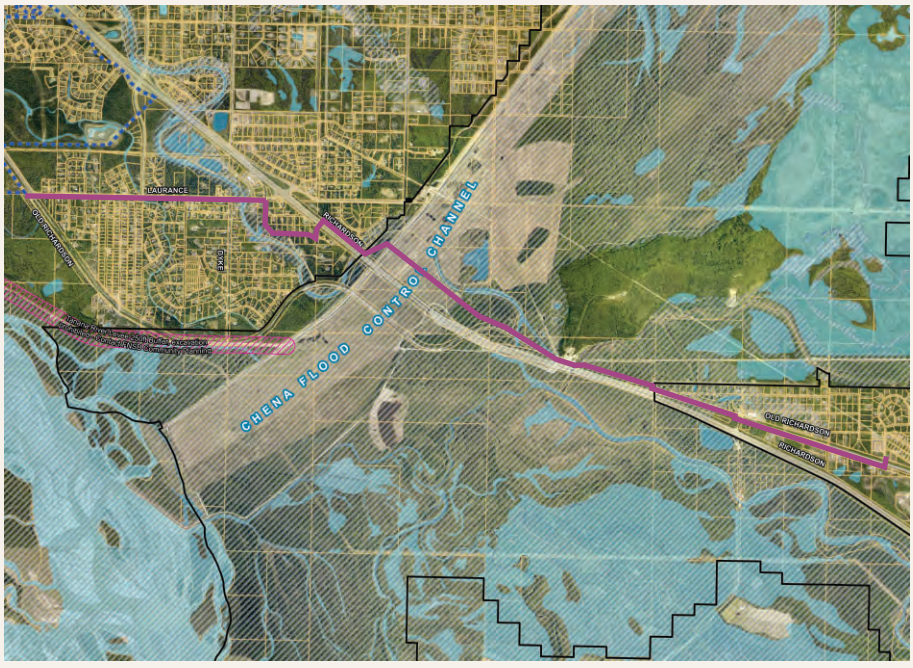


Figure 2 Water Main from North Pole

1. Provide New Water Supply:

The USAF has entered into an agreement with the City of North Pole to design and construct a potable water supply to the Community of Moose Creek.

Design Development and Procurement

This design will require increasing the capacity of the existing water treatment plant at North Pole and designing and permitting a water main from North Pole to the community of Moose Creek **(Figure 2)**.

Within the community of Moose Creek, a local reservoir and pump station to supply the Moose Creek properties will be designed **(Figure 3)** and a local distribution system developed to serve the properties. The City of North Pole will contact local property owners to determine routes, obtain necessary utility easements, establish service connections onto each eligible property, and obtain service agreements with property owners.

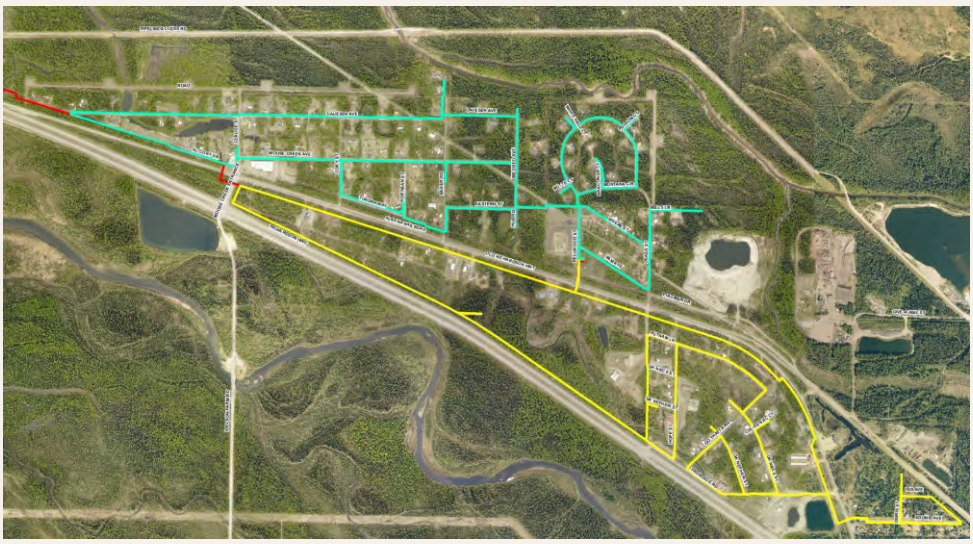


Figure 3 Moose Creek Local Water Distribution System

The design is anticipated to take approximately 6 months to finalize and receive all permits required to start construction. A request for proposals will then be advertised for a construction contractor to install the system. Design will take approximately 5 months.

The City of North Pole will begin contacting owners in August 2019 to obtain required easements and service agreements from property owners.

Construction

The construction of the water system will be completed in two phases.

Phase 1 includes the construction of the main transmission line from North Pole to Moose Creek, installation of the reservoir and pump station in Moose Creek, and the installation of the North Loop distribution line. Connection of individual properties to the North Loop will then commence, and existing treatment/tank systems will be removed. Construction for Phase 1 is anticipated to begin in Spring 2020 and service line connections to be completed by Fall 2021.

Phase 2 of the project includes the installation of the South Loop distribution lines in Moose Creek, connection to individual properties, and the removal of existing treatment/tank systems. Construction for Phase 2 will start in Spring 2021 and service line connections to be completed by Fall 2022.

Maintenance and Operation

The City of North Pole will maintain and operate the water supply and distribution system to all the properties in Moose Creek once the properties are connected and the system becomes operational. They will be responsible for the maintenance of all equipment and piping up to the water meter onto the property.

2. Remove Temporary Water Supply Equipment

Once the new water supply has been connected and is operating, the equipment installed during the TCRA will be removed. The equipment will have been isolated from the water supply system during the local property connection to the new water distribution system. The USAF will arrange with residents to have the equipment removed, water wells abandoned according to State regulations, and landscaping of property to conditions before equipment was installed.

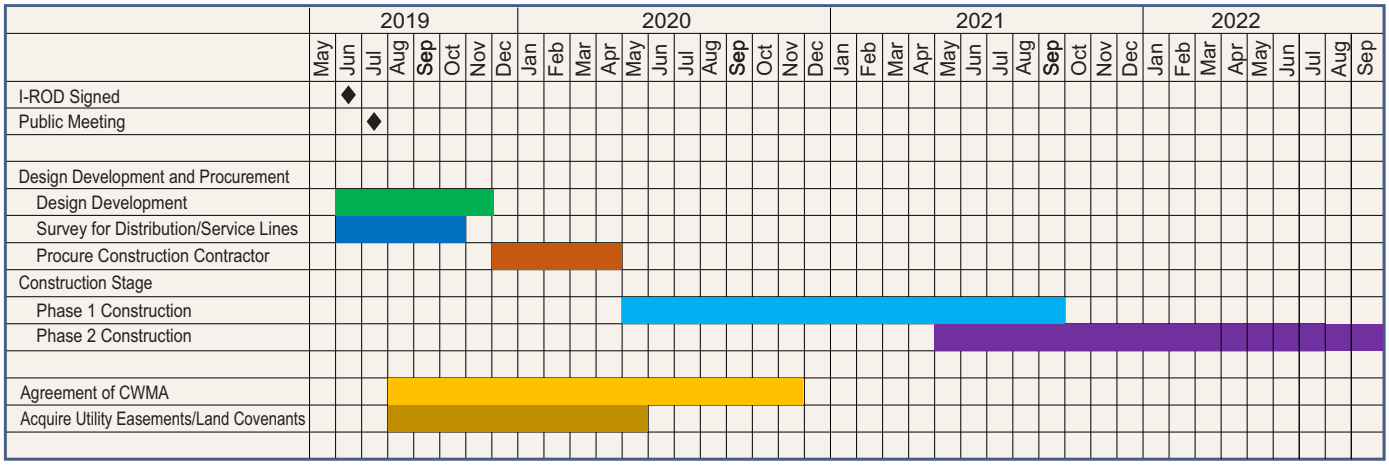
3. Establish Land Use Controls to Prevent use of Contaminated Groundwater

The USAF will petition the Alaska Department of Natural Resources to designate the groundwater in the Moose Creek area as a Critical Water Management Area (CWMA). This designation will deem the groundwater as unusable for all uses and will prevent the future use of contaminated groundwater and prohibit the installation of new water wells.

The USAF will also negotiate environmental covenants with impacted landowners in accordance with the provisions of the UECA. These agreements will include: 1) decommissioning of existing wells; 2) discontinued use of groundwater for any purpose; 3) provide access for the USAF, USEPA, and ADEC implementation of environmental responses, and monitoring of groundwater and land use controls; and 4) prohibit future well installation and contaminated-groundwater use. The environmental covenant places deed restrictions on the property and is required to be filed with the local property deed office. The USAF will be in contact with property owners to negotiate the environmental covenant starting in August 2019.

Project Timeline

The overall project timeline is shown graphically below:



Public Meeting

The USAF will host an open house to present details of the selected remedy to the community of Moose Creek. The meeting is scheduled July 24, 2019 from 6:00 to 8:00 PM at the Moose Creek Fire Station, 3481 Old Richardson Hwy, North Pole, AK 99507.

We will continue to hold regular public meetings during the project development to ensure that the residents of Moose Creek are aware of the status and progress of the work, and to meet with property owners on specific issues.

Additional Information

For more information on PFOS/PFOA, visit:
http://alaskacollection.library.uaf.edu/eafbsc/cd0/Moose%20Creek%20PFCs%20Contamination%20Information%20Repository/
Air Force Civil Engineer Center
http://www.afce.af.mil/WhatWeDo/Environment/Perfluorinated-Compounds/
Environmental Protection Agency:
www.epa.gov/pfas
Alaska Department of Environmental Conservation
http://dec.alaska.gov/spar/csp/pfas-contaminants
Agency for Toxic Substances and Disease Registry
www.atsdr.cdc.gov/
Interstate Technology Regulatory Council (ITRC)
http://pfas-1.itrcweb.org/fact-sheets/

Need Additional Information?

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