



# MISSISSAUGAS OF THE CREDIT FIRST NATION- WATERMAIN EXPANSION

COMMUNITY INFORMATION SESSION

August 10, 2019



# Outline

- Introduction to Project Team
- Scope of Work
- Project Description
  - Work Completed
  - Watermain Installation
  - In-house Work
- Project Timeline
- Q&A

# Project Team

**Yousry Hamdy, M.Sc., P.Eng.**

Project Manager and Technical Lead

**Arland LaForme**

Director of Public Works, Mississaugas  
of the Credit First Nation (MCFN)

**Vivek Nemani, MAsC., EIT**

Water and Wastewater Specialist  
Construction Supervision

**Michael R. Montour**

Director of Public Works, Six Nation of  
the Grand River Nation (SNGN)

# Scope of Work

- Installation of new watermain (with fire hydrants) and service connections along:
  - Tuscarora Road between Townline and Mississauga Road
  - Second Line Road between New Credit Road and Cayuga Road
  - Cayuga Road between Second Line and Mississauga Road
  - Watermain in the former Green Willow Property.
- Connect houses in SNGN along Second Line and Mississauga Road

# Participation of MCFN and SN

- Proposed watermain expansion runs along the border roads between Mississaugas of the Credit First Nation (MNCFN) and Six Nations of the Grand River (SNGN) reserves
- Design assumes connection of houses in both Nations along the proposed watermain

# Work Completed

- Site survey
- Geotechnical investigation
- Species at Risk (SAR) Assessment
- Existing and proposed watermain hydraulic modelling
- Detailed design and fire-flow analysis
- Project Specifications and Tender Documentation

# Drone-Assisted Topographical Survey



# Geotechnical Investigation

- 20 boreholes and 6 monitoring wells were advanced along the proposed watermain location
- Generally underlain by firm to stiff clayey silt
- Groundwater was identified above the dig depth at some locations
- Directional drilling was the recommended method of installation to reduce trench dewatering as well as minimize intrusion and site restoration

# Species At Risk (SAR) Assessment

- Arcadis' biologist conducted a walkthrough along the proposed watermain stretch
- Based on the vegetation present, the habitat assessment assumed that the roadside ditches would remain dry throughout most of the year and would therefore not provide significant habitat for amphibians and reptiles.
- Trees would not be removed during project activities (without prior permission from MCFN)
- Construction laydown areas would be either on vacant lots, cultural meadows or fallow fields.

# Species At Risk (SAR) Assessment

- Directional drilling will be performed at the following locations (at minimum):
  - Water crossing Boston Creek, Tuscarora Road
  - Water crossing, Cayuga Road
- Adequate silt-fencing and erosion measures to be provided in areas with wetland vegetation

# Species At Risk (SAR) Assessment



Water crossing Boston Creek, Tuscarora Road, looking east



Water crossing, Cayuga Road, looking west



Cattail marsh, Cayuga Road, looking west

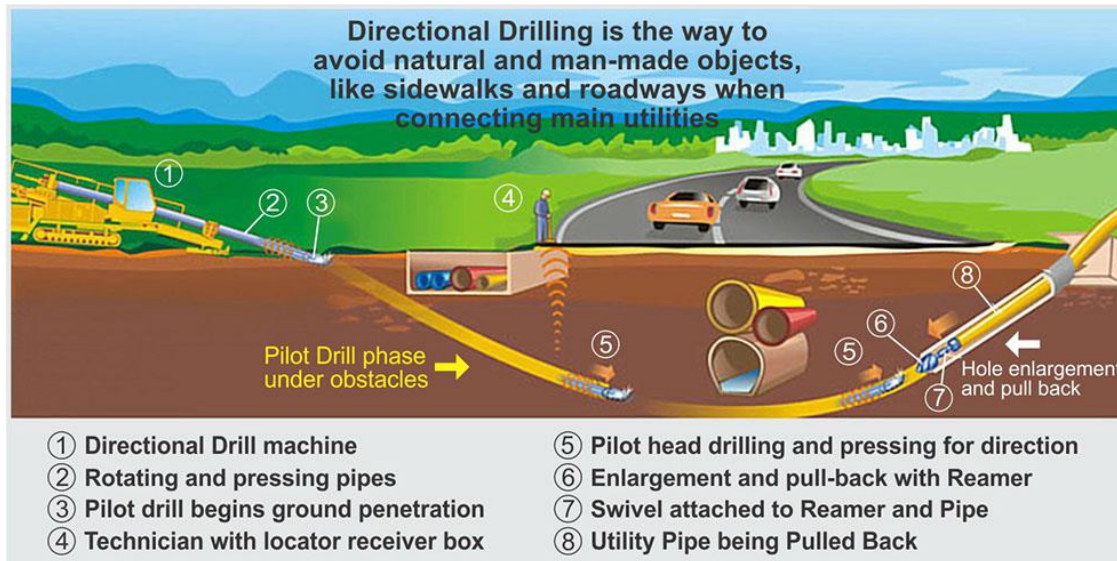
# Watermain Installation- Material

Poly Vinyl Chloride (PVC) for watermain, High-density polyethylene (HDPE) for stream crossings

- Durable
- Corrosion Resistant
- Easy to install and maintain
- Cost effective
- Minimum pipe cover 1.8 m (6 ft.)
- Pipe will be located in the shoulder of the roadway (right of way) along MCFN boundary



# Construction-Directional Drilling



- Least invasive- Requires only entry and exit pit
- Can be installed in a wide variety of soil conditions
- Minimal site restoration

# In-house Features

## Backflow Preventer

Prevent contamination  
of Water Supply



## Shutoff Valve

On/off Operations



**Current In-house treatment and well will be  
decommissioned**

# In-house Work

- In-house work will require access to property at least four times during project
  - Pre-construction inspection to document existing conditions and identify location of service connection
  - Access to install service connection and decommission any existing equipment
  - Post-construction inspection to repair any damage
  - Well decommissioning



Mississaugas of the New Credit First  
Nation  
2789 Mississauga Road R.R. #6  
Hagersville, Ontario  
N0A 1H0  
Tel: (905)768-1133



ARCADIS Canada Inc.  
121 Granton Drive, Suite 12  
Richmond Hill, Ontario L4B  
3N4  
Tel 905 764 9380  
[www.arcadis-canada.com](http://www.arcadis-canada.com)

### Consent to Participate

Arcadis Canada Inc. (Arcadis) has been retained on behalf of the Mississaugas of the New Credit First Nation (MNCFN) to design a watermain expansion project in the community. The new watermain is proposed to be installed along the following areas:

- Tuscarora Road (between Townline Road and Mississauga Road)
- Second Line Road (between New Credit Road and Cayuga Road)
- Cayuga Road (between Mississauga Road and Second Line Road)

We would appreciate if you could confirm your participation and consent for this project. Please indicate your preference from the following options for connection to the new system:

- ☐ Service connection from new watermain to home plumbing
- ☐ Service connection from watermain to curb-stop only
- ☐ Exclude from connection to watermain

A community engagement session is scheduled to be held in September 2018 which will outline project details and address any questions/concerns you may have. You will have an opportunity to change your preference after the session.

For any questions related to this project, please contact Arland LaForme, Director of Public Works, Mississaugas of the New Credit First Nation at 905-768-1133 Ext. 238 or [arland.laforme@mncfn.ca](mailto:arland.laforme@mncfn.ca)

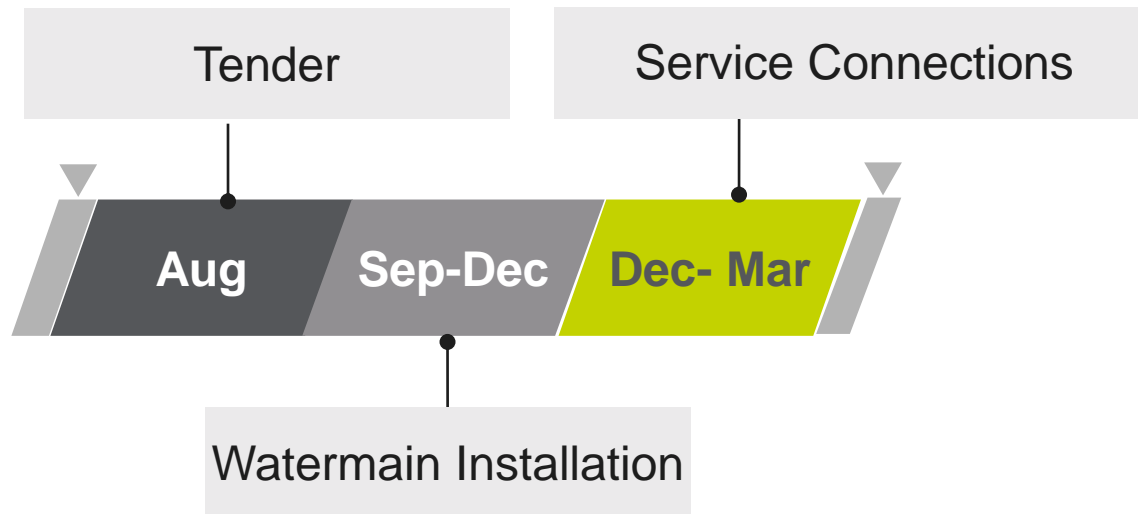
Address:

Homeowner Name:

Signature

# Please fill the consent form to indicate your participation

# Project Timeline



# Contacts

## ARLAND LAFORME

Director of Public Works, Mississaugas of the  
Credit First Nation

**office** 905-768-1133 ext 238  
**fax** 905-768-1225  
**email** arland.laforme@mncfn.ca

---



## YOUSRY HAMDY

Water and Wastewater Manager

**office** 905 764 9380  
**email** yousry.hamdy@arcadis.com

# Questions/Discussion



# Arcadis. Improving quality of life.



# References

[private-utility-locators.com](http://private-utility-locators.com)

[www.teropongsenayan.com](http://www.teropongsenayan.com)

[Grundfos.ca](http://Grundfos.ca)

[indiamart.com](http://indiamart.com)

[hanrahanplant.com](http://hanrahanplant.com)

[mitkollc.com](http://mitkollc.com)

[tesmec.com](http://tesmec.com)

[drilling-construction.com](http://drilling-construction.com)

[OPSD Drawings](#)

[Watts.com](http://Watts.com)