

Garson East Water Supply Project Update CGS Operations Committee

By Akli Ben-Anteur., M.Eng, M.PM, PMP, P.Eng



November 18, 2019

Introduction

- Goal
- Why?
- Background
- Feasibility study findings summary
- Next steps



Goal

- To develop multiple alternatives that can maintain the current level of service in Garson East and provide a reliable water supply system



Why?

- Integrated and efficient water system
- Asset rationalization
- Identical approach used for Lively/Walden wastewater system



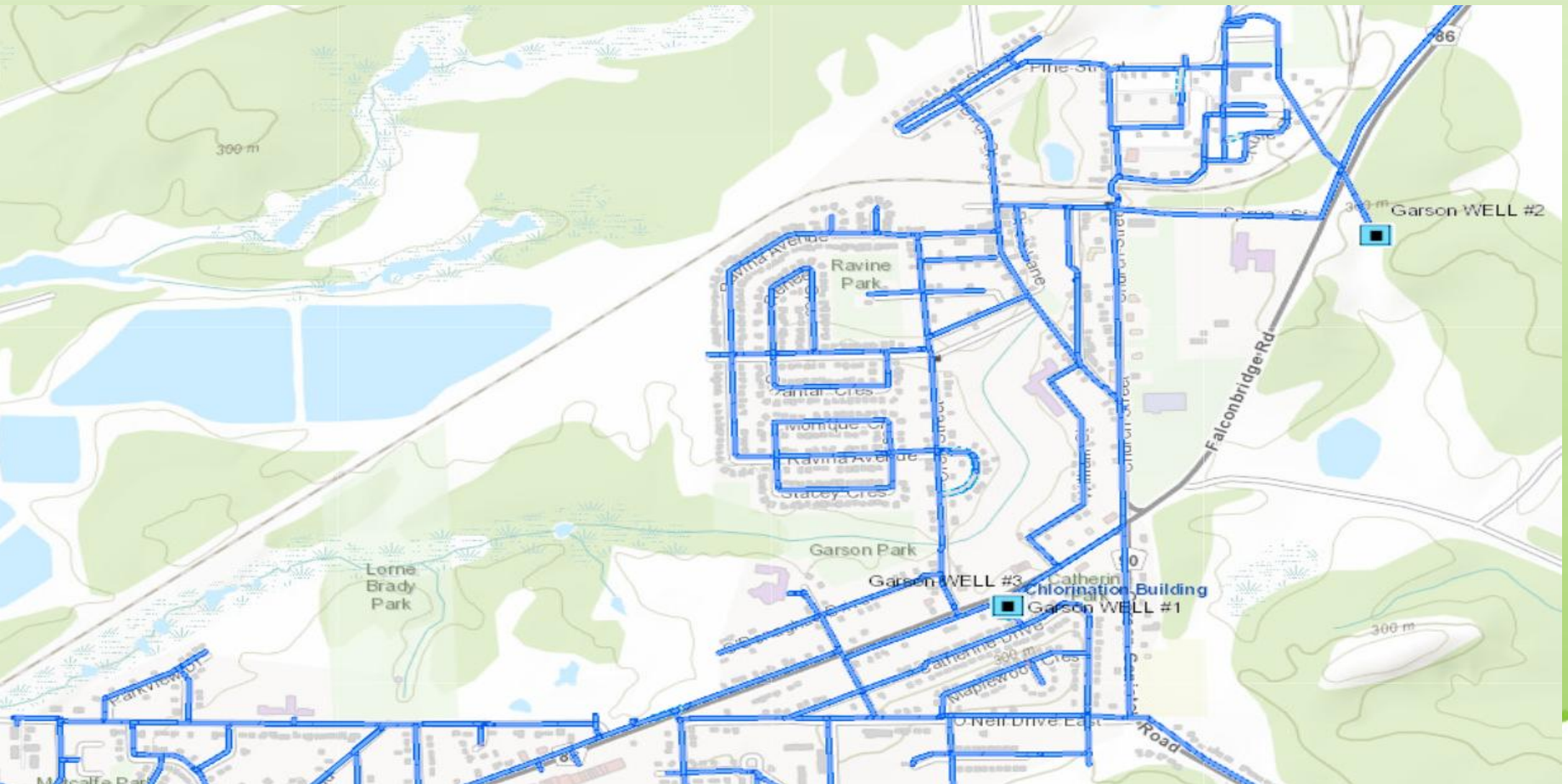
Why?

- Enhance existing water source (quantity and quality)
- Build robust water supply:
 - Existing built in redundancy within Sudbury water system
 - Flow/pressure: Adequate supply from Sudbury water system as water demand is going down
- Proactive and accommodates future growth

Project Background – Garson System

Community	Garson
Pressure Zones	Two: West (2A) and East (2B),
Zones Separation	Pressure Sustaining Valve (PSV) at O’Neil Dr.
Water Supply Sources	West: Sudbury Water Distribution System via Maley Booster Pumping Station (BPS) and Ellis Reservoir East: 3 groundwater wells (Wells 1, 2 and 3)
Storage	No floating storage is available in either distribution system
Garson East Water Quality	Ground water is subject to influence of surrounding commercial and industrial activities.

Project Background – Existing Network



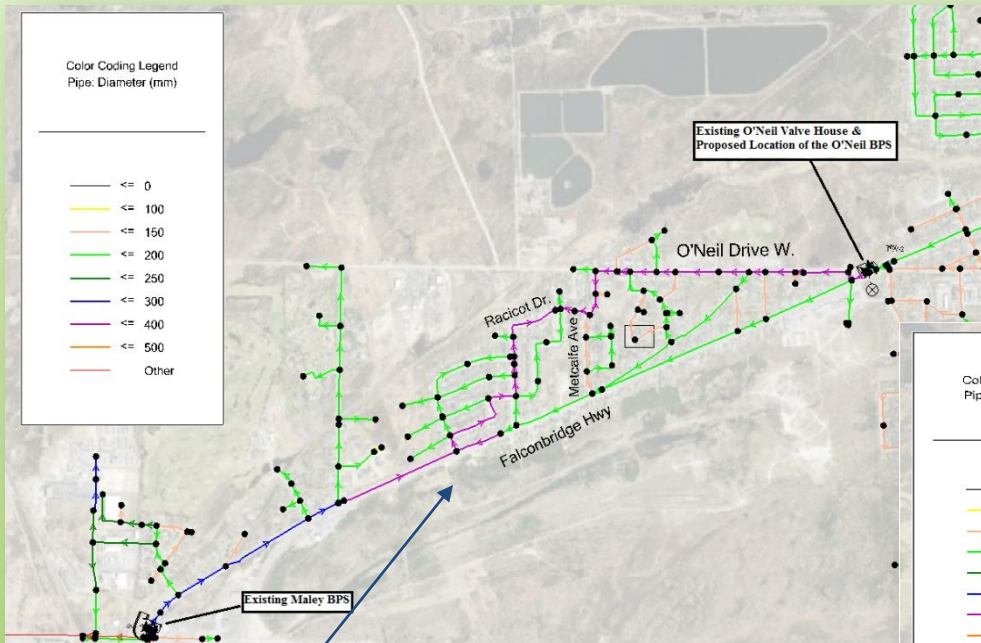
Feasibility Study Summary

- Reviewed multiple water supply alternatives for the Garson East community
- List of alternatives were developed to enhance water supply:
 - Fireflow
 - Pressure
 - Quality
 - Meet current and future demand

Feasibility Study Summary

- Alternatives short-listed for further analysis:
 - **1:** *Decommission Wells 1 and 3, upgrade Maley BPS, retain Well 2, potential addition of a new BPS at O'Neil Dr. and/or watermain upgrades*
 - **2:** *Decommission all Wells in Garson East, upgrade Maley BPS, addition of a new Booster Station at O'Neil Dr. and/or watermain upgrades*
 - **3:** *Decommission Wells 1 and 3, construct new storage in Garson East, potential addition of a new BPS at O'Neil Dr. and/or watermain upgrades*

Feasibility Study Hydraulic Findings

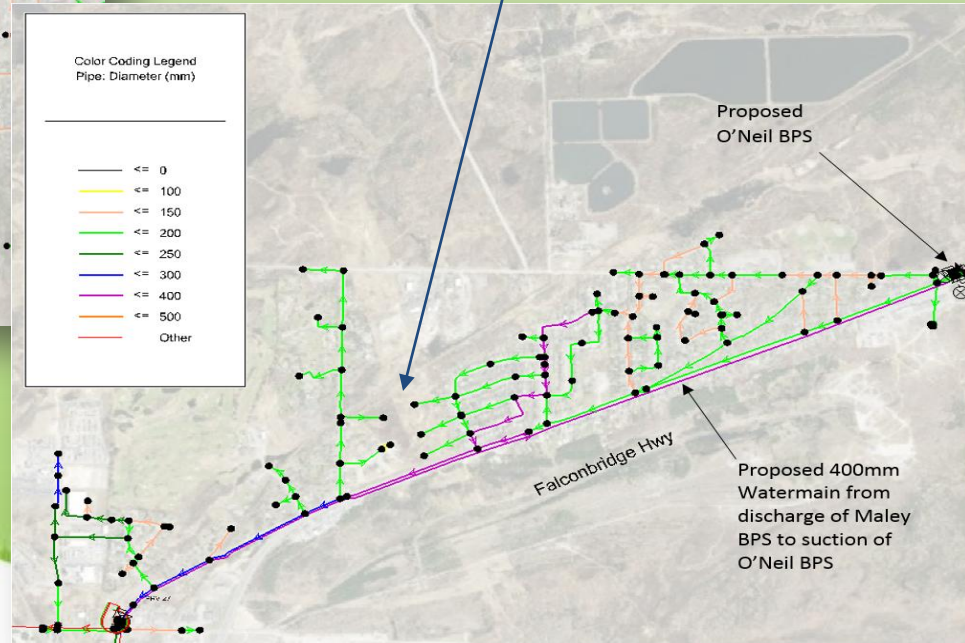


A separate 400 mm watermain from Maley Dr. BPS to the new proposed O'Neil Dr. BPS

Maley BPS also needs capacity expansion

Extending the existing 400 mm watermain to the new proposed O'Neil Dr. BPS

Maley BPS also needs capacity expansion



Next Steps

- All potential upgrades fall under Class Municipal Assessment – Schedule B
- Three proposed alternatives further studied through Class EA process
- Wells 1 and 3 will be decommissioned in future
- Garson East supply will be via Maley BPS/Sudbury water distribution system

Thank You

