

Shadow Ridge Deep Well Upgrades

Public Information Session

April 27, 2022



Welcome

Welcome to the Online Public Information Session for the Shadow Ridge Well Upgrades project.

The City has a proactive communications approach. The Project Team will update you on the project using different methods to communicate including letters and posting information on Ottawa.ca.

The purpose of this Online Public Information Session is to present the design thus far and to inform the public of next steps.

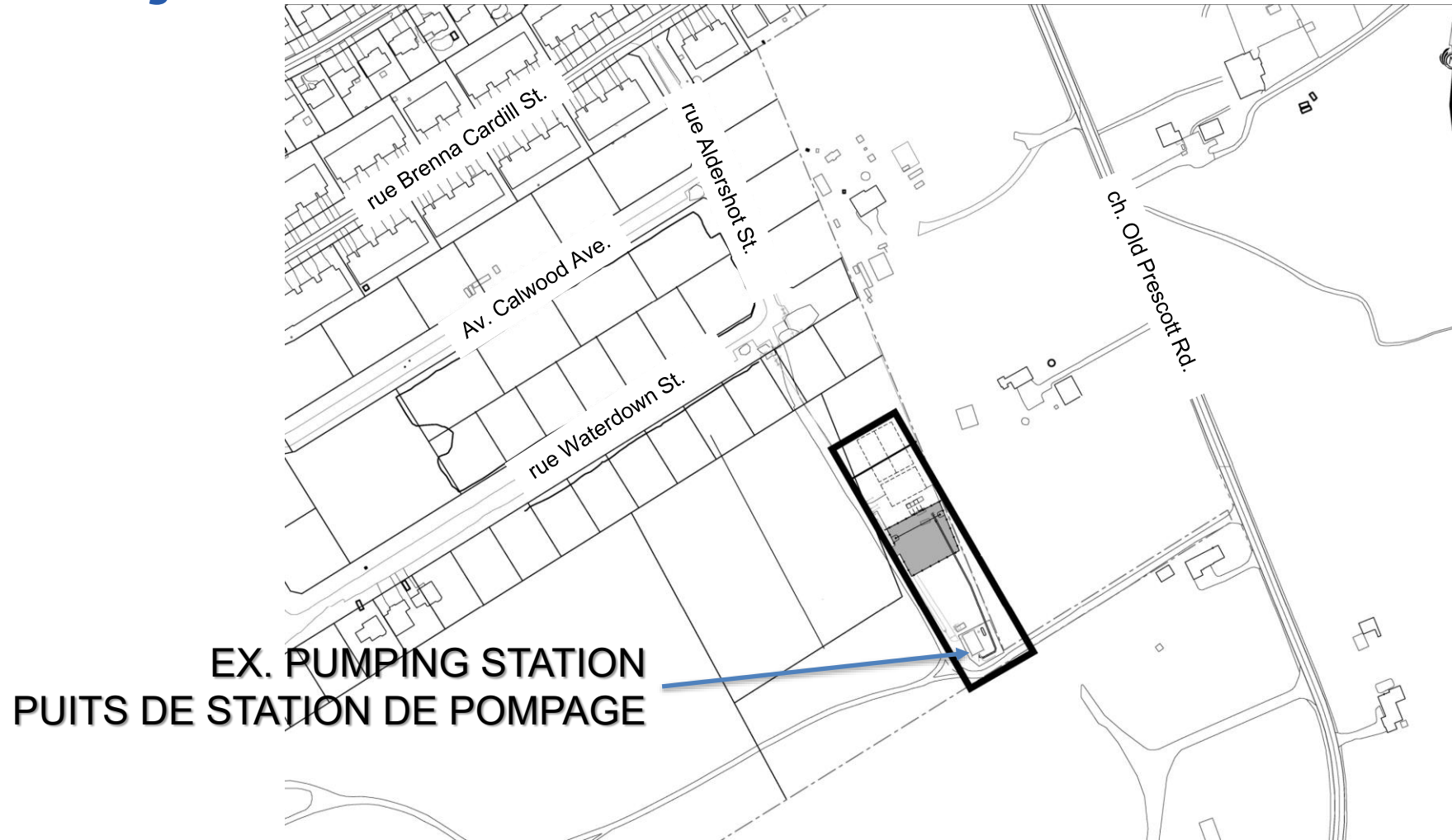
Please review the information presented and **provide your comments by phone or email**, as noted on the last page of this document, **by May 11, 2022**.

Purpose of Public Information Session

To present and gather your feedback on:

- Project Scope
- Existing Site and Facility
- Existing Water Quality
- Proposed Works
- Schedule
- Next Steps

Project Area: 6505B Waterdown Street



EX. PUMPING STATION
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Project Timeline



Existing Site



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Existing Site



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Existing Shadow Ridge Well System

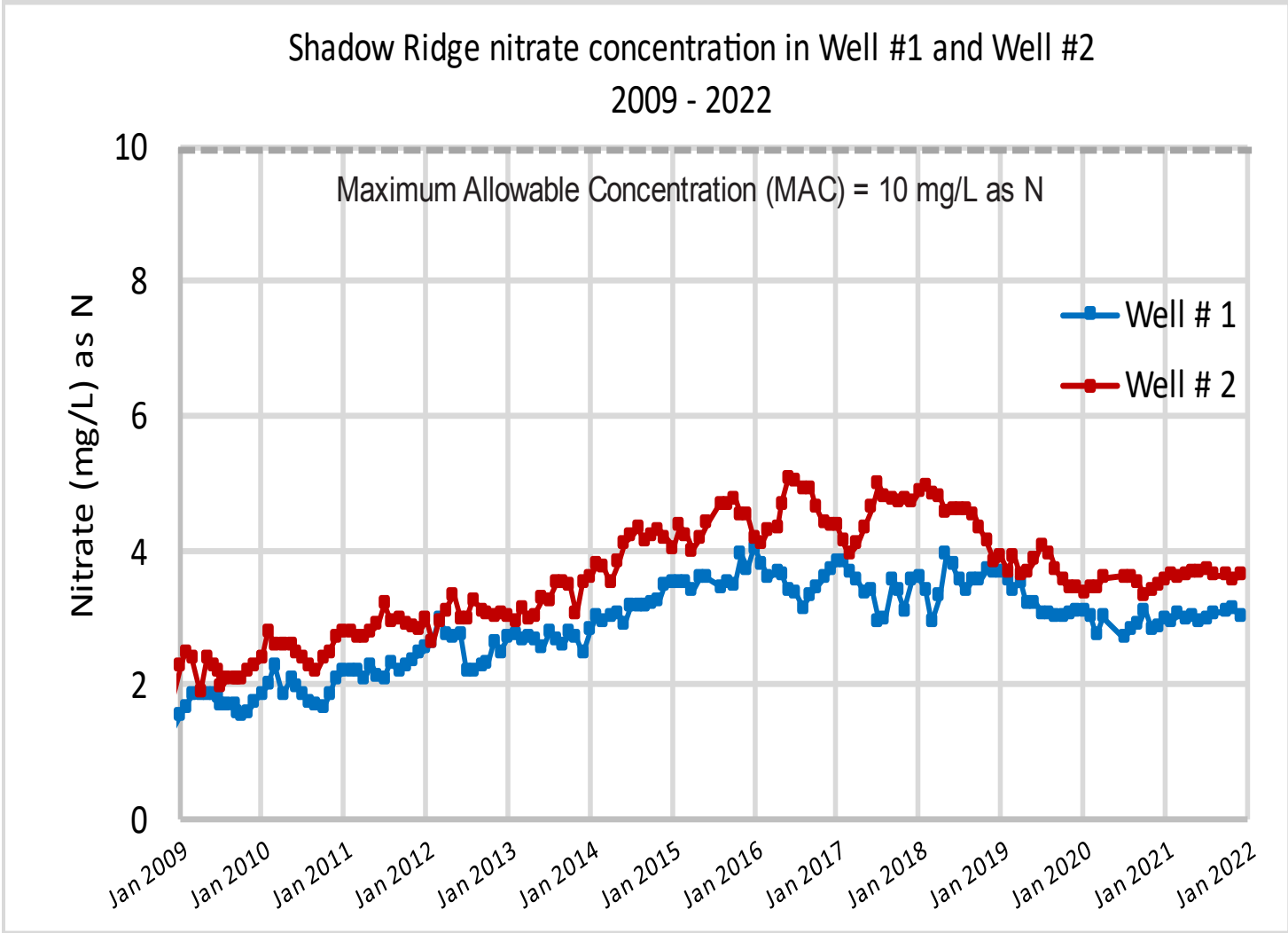
- **Safe to drink** – meets all Federal and Provincial drinking water standards
- The existing shallow wells are 19m deep
- Water quality is excellent, except for nitrate concentrations
- Nitrate concentrations are within the safe drinking water standard of 10 mg/L and do not pose a health concern
- The nitrate source is not known, but likely comes from surface water sources

Water Quality - Nitrate

Nitrate levels increased from 2008 to 2017. In 2018 the levels remained fairly consistent before decreasing in 2019.

Nitrate concentrations have always been safely below the 10 mg/L Drinking Water standard.

Nitrate can be removed by reverse osmosis or ion exchange, but treatment is complicated and costly



Next Steps: Schedule

2022

- Complete designs and tender for drilling new wells (Contract 1)
- Contract 1: Drilling of two deep wells
- Start Schedule B Environmental Assessment

2023

- Contract 1: Drilling of provisional 3rd deep well, if required
- Complete Schedule B Environmental Assessment
- Complete design and tender for pumping station modifications (Contract 2)

2023-2024

- Contract 2: Upgrade existing pumping station, commission new deeper wells and ancillary systems
- Abandon existing shallow wells

Proposed Works

The proposed work includes the construction of new, deeper wells to improve the local drinking water quality and supply, including:

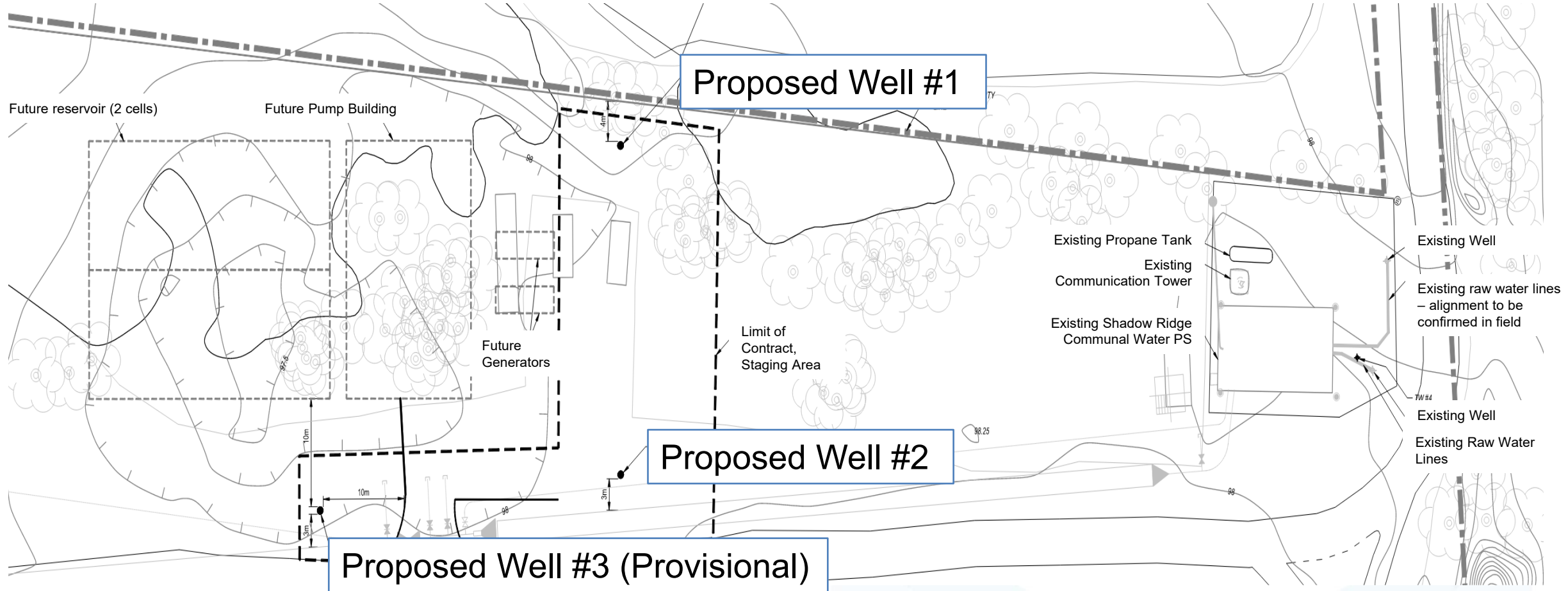
- Two (2) new, approximately 150 m deep water supply wells
- Monitoring of wells to determine if volumes are sufficient
- One (1) additional well (if required based on flow volumes from first two wells)
- Pumping station modifications including electrical system upgrades and piping

The wells will be designed to support existing demand, and will also make consideration for future growth. Their safe yield (capacity) will be established through pump tests, once new wells are drilled in 2022.

Approved funds to date: \$2.6 million

Proposed Well Design

- Wells drilled to ~150m deep



Deeper Wells – Water Quality

The deeper well sources are expected to indicate:

- No presence of nitrate
- The protected aquifer may have higher iron and manganese, which may result in aesthetic differences in taste and colour (and require slightly more chlorine to treat)
- Water hardness is not expected to change (no change to need for water softener)

Construction Noise for Well Testing

- Temporary noise impacts are anticipated
- Construction is expected from Monday to Friday (no weekend work is expected)

City of Ottawa Noise By-law permits construction:

- Weekdays and Saturdays 7 a.m. to 10 p.m.
- Sundays, statutory and public holidays 9 a.m. to 10 p.m.
- Exemptions to the above will be reviewed and communicated to the public in advance

Next Steps

The new deeper wells (Contract 1) are to be installed and tested in advance of the future necessary pumping station modifications (Contract 2). Upon confirmation of the Environmental Assessment, the interim works (Contract 2) at the pumping station include:

- New 600V, 3 phase electrical service and transformer
- New electrical and controls building
- New standby power generator
- New watermains, from new wells to the existing station

Future Works

Future works will be expanded and detailed at a later date and under a separate Environmental Assessment. Consideration will be given to future site growth requirements.

Based on demand and reliability needs, such requirements may include:

- Additional pumping station upgrades
- Treated water storage reservoirs
- New pumping station
- Additional standby power
- New watermains, etc.

Thank you

Thank you for reviewing the project's information boards. We encourage and welcome your feedback on the Works.

Please email your comments to the address shown below by **May 11, 2022**.

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