

Verona Housing Water and Wastewater Class EAs Public Information Meeting No. 3

September 15, 2026

J.L. Richards & Associates Limited

Cambium Inc.

Township of South Frontenac



Project Background

2020: Acquisition by Township of two parcels of land in the Village of Verona for a mixed-housing development project.

2022: Completion of Verona Housing Master Plan.

2024: Completion of Verona Housing Water & Wastewater Master Plan.

2025: Initiation of Verona Water & Wastewater Class EAs.

2026: Natural environment, archaeological, water and wastewater field investigations.

Winter 2027: Expected date of issue of Environmental Study Report.

Public
Information
Meeting #2

We are here

Phase 1

Problem or Opportunity



Phase 2

Alternative Solutions



Phase 3

Alternative Design Concepts
for Preferred Solution



Phase 4

Environmental Study Report



Phase 5 (Not part of current study scope)

Implementation

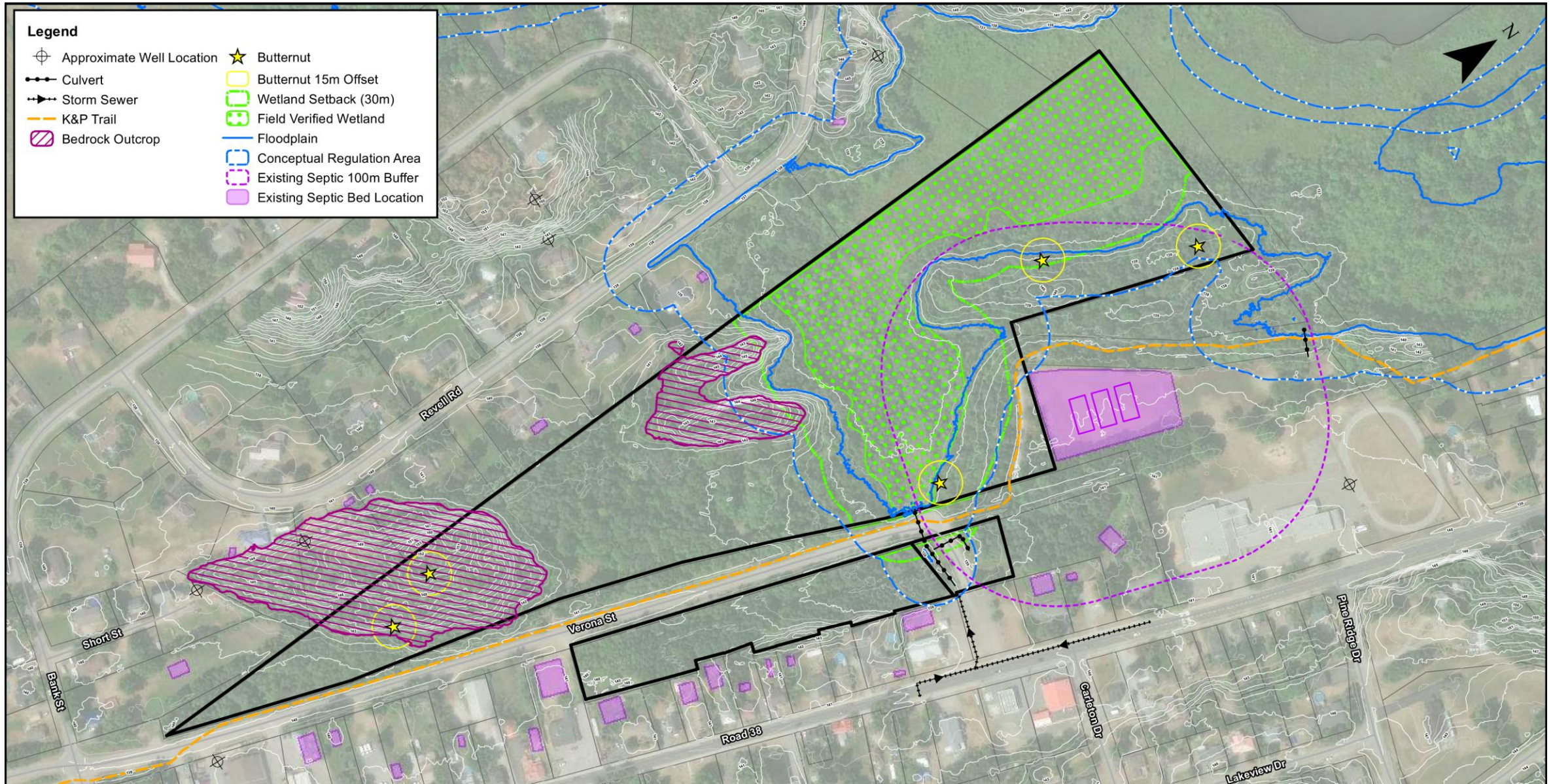
**Verona
Housing
W&WW
Master Plan**

**Verona
Housing
W&WW Class
EAs**

Study Location – Village of Verona



Study Area



Preferred Solution from Master Plan

Onsite Groundwater Well & Onsite Large Subsurface Sewage Disposal System (LSSDS) (Exact Locations to be Confirmed)

- New groundwater well, with pumping and treatment
- New water storage for water system
- New wastewater treatment facility
- New subsurface dispersal bed for disposal of treated wastewater
- Supporting infrastructure (ex. watermains, sewers, etc.)
- Abandon original test well drilled in 2020

Opinion of Probable Construction Cost (OPCC)

\$4.1 million (2024 Dollars) per Master Plan. OPCC is currently outdated and will be reviewed during the Class EAs.

Studies Completed Since Master Plan

Cultural Heritage Report

By LHC

Goal to identify built heritage resources and cultural heritage landscapes.

(More information in 2 slides)

Environmental Impact Study

By Cambium

Goal to assess potential natural environment (fauna, flora, species at risk, etc.) impacts of the proposed servicing options.

(More information in 3 slides)

Archaeological Assessments (AAs)

By LHC

Goal to assess archaeological potential and mitigate potential impacts from proposed works.

(More information in 2 slides)

Geotechnical Study

By Cambium

Goal of describing geotechnical site conditions for the design of water and wastewater infrastructure.

(More information in 4 slides)

Water Resource Impact Assessment

By Cambium

Goal to assess the site's capacity to accommodate a large subsurface dispersal system and associated treatment requirements.

(More information in 4 slides)

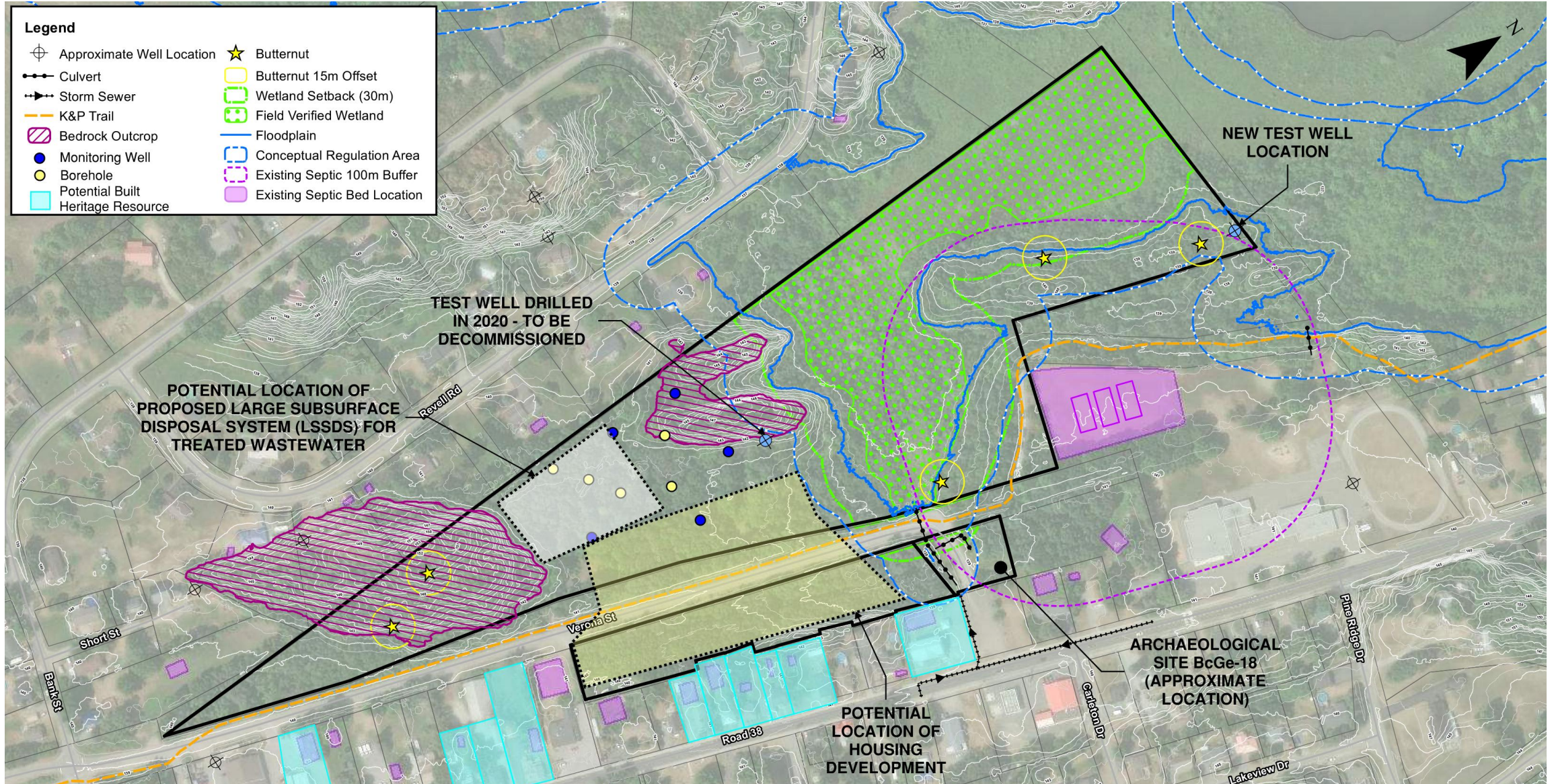
Hydrogeological Assessment

By Cambium

Goal to drill new well and undertake pumping tests to assess the suitability of the test well as a water supply source.

(More information in 4 slides)

Study Area – Existing Conditions & Considerations (based on Completed Studies)



Cultural Heritage Resource Studies

Cultural Heritage Report: Existing Conditions and Prel. Impact Assessment

- Identified 10 potential built heritage resources; all along Road 38 and built pre-1962.
- Resources are outside study parcels; will be avoided during investigations and construction.

Archaeological Assessments (AAs):

- Note that all works have been completed in accordance with Ontario Heritage Act R.S.O. 1990 as per the Ministry of Citizenship and Multiculturalism (MCM) 2011 Standards and Guidelines for Consultant Archaeologists.
- Stage 1 AA completed for both parcels. Determined that majority of project area exhibited archaeological potential.
- Stage 2 AA test pit survey at 5 m intervals completed throughout areas with archaeological potential. One post-contact mid-19th century site (BcGe-18) was identified.
- Stage 3 AA fieldwork of BcGe-18 completed in Spring 2026 in coordination with Alderville First Nation (AFN), Algonquins of Pikwàkanagàn First Nation (AOPFN), Algonquins of Ontario (AOO) and Shabot Obaadjiwan First Nation (SOFN).
- Application to establish a buffer from archaeological site is currently ongoing.

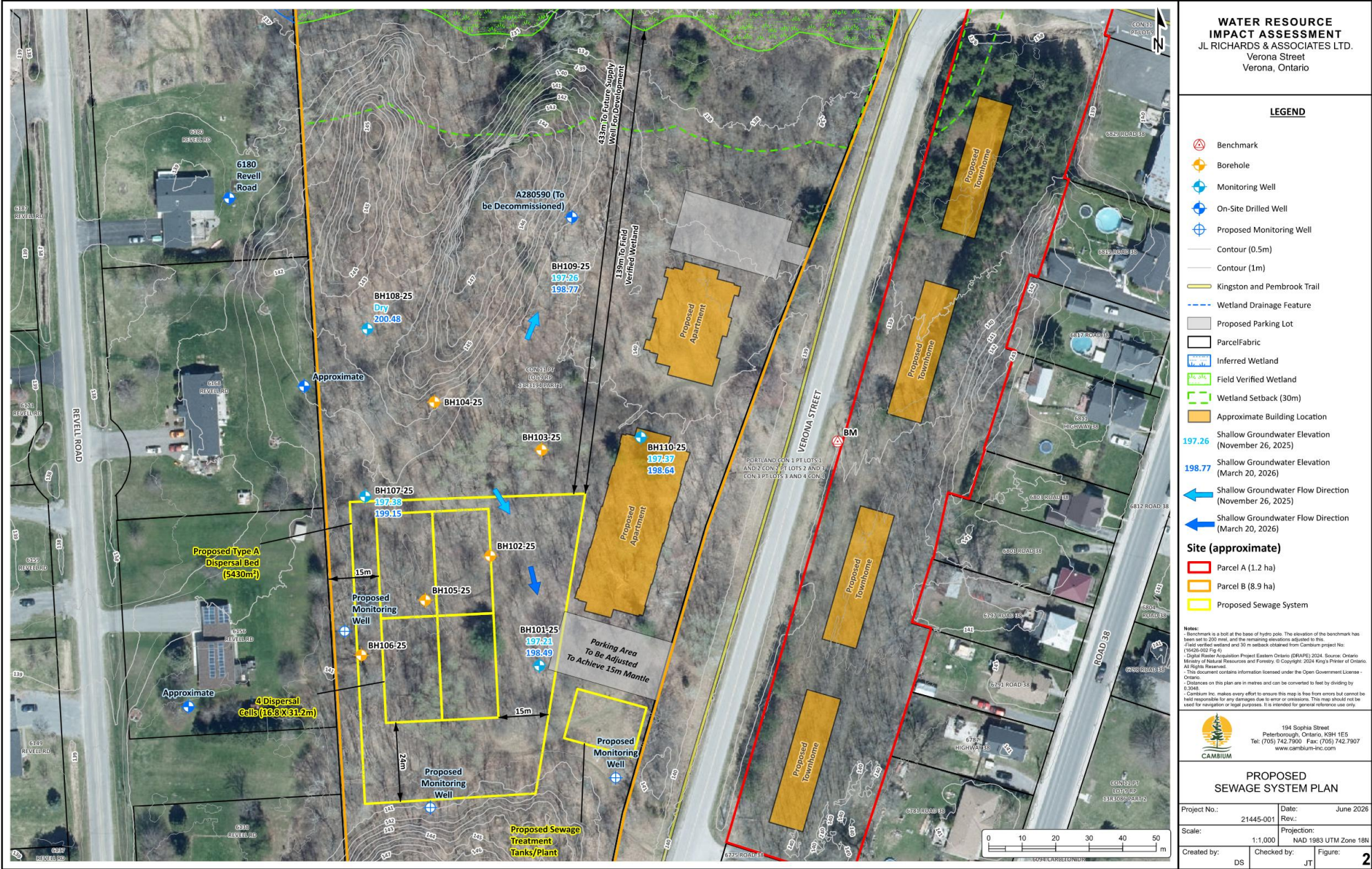
Environmental Impact Study

- 30 m setback to be applied from wetland. This area shall be maintained as naturally vegetated and self-sustaining buffer.
- Butternuts (endangered species) identified on site are all Category 1 (affected by canker). Permit may be obtained for the removal of Butternuts if required. Setback of 15m applied from Butternuts for planning purposes.
- Recommended key best practices / impact mitigation measures:
 - Encourage measures to increase stormwater infiltration.
 - Clear vegetation outside the breeding bird & active bat seasons.
 - Provide exclusion fencing / sediment fencing to avoid nesting of turtles and snakes in construction area.
 - Reduce and mitigate noise and light pollution.

Hydrogeological Assessment



Water Resource Impact Assessment



Geotechnical, Hydrogeological and Water Resource Impact Assessment

- Ten (10) boreholes have so far been drilled; five (5) of which have been developed into monitoring wells. Two (2) test wells have been drilled; one of which is planned to be decommissioned and the other is to be developed into a Municipal Well.
- Survey completed of other wells and septic systems in area.
- **Hydrogeological Findings:**
 - 72-hour pumping test of proposed drinking water well found that it can sustain a pumping rate of at least 164 m³/day with minimal drawdown.
 - Well monitoring program (including private wells) completed during testing showed no noticeable impact on nearby surface water or shallow groundwater sources.
 - Water quality testing results showed that water is suited for potable use with standard treatment in accordance with regulatory guidelines.
- **Water Resource Impact Assessment Findings:**
 - Site can support a Type A large subsurface dispersal system with a capacity of approximately 100 m³/day provided appropriate wastewater treatment is implemented, and groundwater quality monitoring measures are in place.

Consultation

- Two Public Information Meetings were held during the Master Plan. Today is the third and final public information meeting.
- In addition to minimum consultation requirements, the project team has been in consultation with regulatory agencies, Indigenous communities, and other interested parties throughout the Master Plan and Class EAs. These include:
 - Ministry of the Environment, Conservation, and Parks (MECP)
 - Ministry of Citizenship and Multiculturalism (MCM)
 - Indigenous communities (AFN, AOPFN, AOO, SOFN and others)
 - Quinte Conservation Authority / Source Protection Authority
 - Frontenac Municipal Services Corporation
 - Nearby residents and residents interested in study

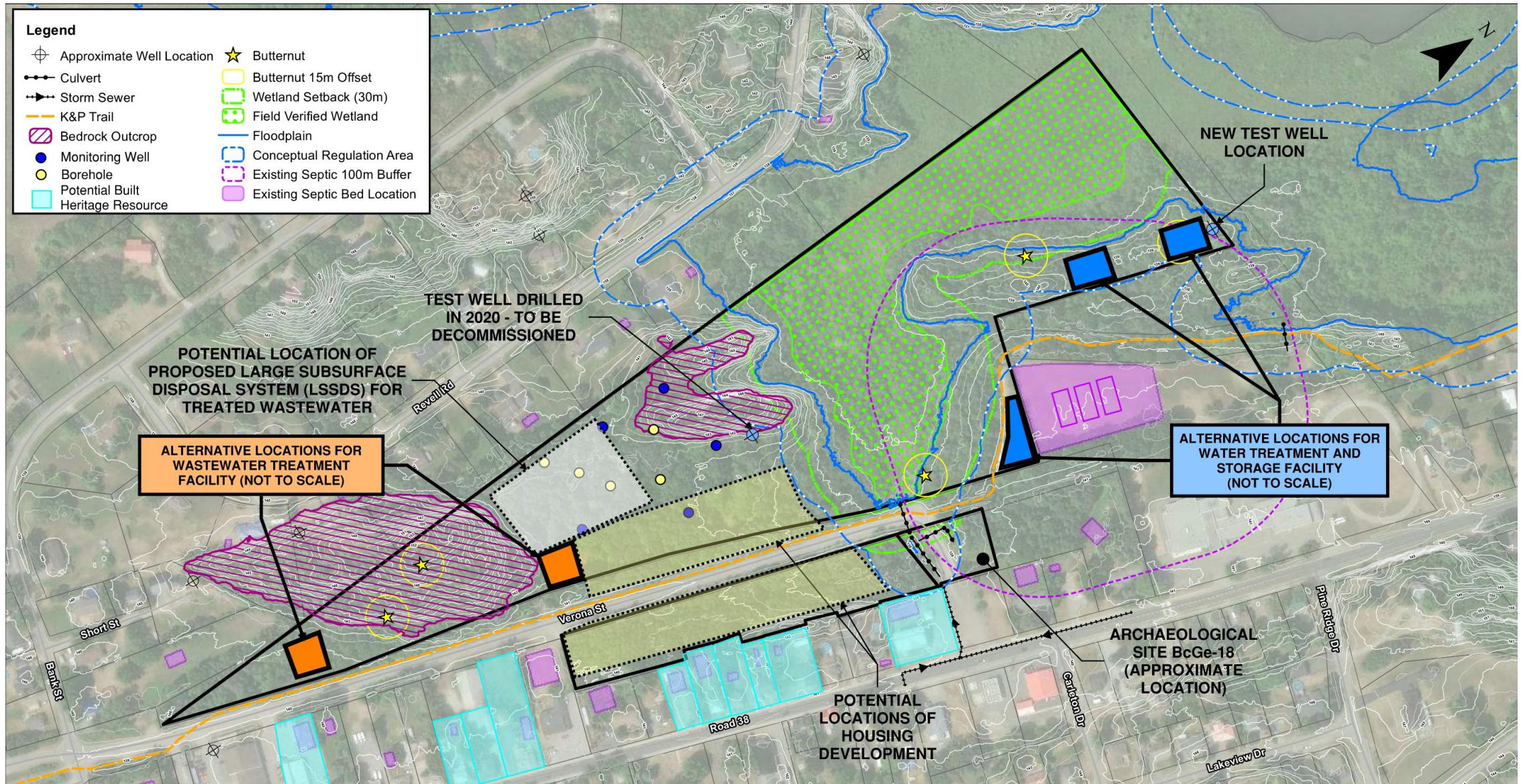
Updated Design Basis following Studies

- Available subsurface dispersal capacity of approximately 100 m³/day.
- Available water supply of at least 164 m³/day.
- Maximum servicing population still to be confirmed but aligns with previous estimates from W&WW Master Plan.
- Water treatment – Minimum required treatment is disinfection.
- Water storage – Equalization storage to service new development. Fire protection to be separately addressed under the Ontario Building Code.
- Wastewater treatment – Proposed advanced treatment system with the following effluent objectives prior to discharge into the large subsurface sewage disposal system (LSSDS).

Table 5 Expected Influent Sewage Strength and Effluent Objectives

Parameter	Design Value	Effluent Objective
BOD (mg/L)	200-400	-
cBOD (mg/L)	-	< 10
TSS (mg/L)	150-350	< 10
Total Phosphorus (mg/L)	5-10	< 1
Total Ammonia Nitrogen (mg/L)	25-50	-
Total Kjeldahl Nitrogen (mg/L)	35-70	-
Total Nitrogen (mg/L)	-	< 3

Design Alternatives (Locations)



Other Design Alternatives

- **Water treatment** – Sodium hypochlorite disinfection, chlorine gas disinfection, or chloramination disinfection.
- **Water storage** – Above-grade storage, below-grade storage or within-building storage.
- **Wastewater treatment** – Membrane bioreactor (MBR), sequencing batch reactor (SBR) or moving bed biofilm reactor (MBBR) based systems.

Next Steps

Address
comments
from Public
Information
Meeting # 3.

Evaluate
Water and
Wastewater
Design
Alternatives.

Complete
draft
Environmental
Study Report.

Issue Notice
of Completion
and place
Class EA on
public record
for 30 days.

Finalize Class
EAs.

Contacts

Please provide any comments you may have by **September 30, 2026**. This will ensure your comments are addressed and considered in the Class EA studies.

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Visit the Township website at www.southfrontenac.net and the project website at <https://engagefrontenac.ca/verona-servicing> for more updates.