Baden and New Hamburg Water and Wastewater System Servicing Review

Virtual Public Consultation
Centre #3
June 7, 2022
Public Consultation Centre #3

Welcome!

The goals of this final Public Consultation Centre (PCC#3):

- Provide an overview of the project
- Provide an update on the study since PCC #2
- Present the Preferred Alternative Solutions for the Water and Wastewater Servicing for the communities of Baden, New Hamburg and Foxboro Green
- Provide an opportunity for you to learn about the project and get involved

Comments received during this study will be used to develop the recommended approach for current and future water and wastewater infrastructure needs of the communities of Baden, New Hamburg and Foxboro Green.
Project Overview

What are we doing?
We are assessing the current water supply and wastewater treatment systems that serve the communities of Baden and New Hamburg. This study will look at the current and future infrastructure needs for the community. This study excludes the local watermain and sewer extensions which are the responsibility of Wilmot Township.

Why are we doing it?
We are taking steps now to ensure we are ready to meet the future needs of Baden and New Hamburg through examination of the Region’s infrastructure. We will also explore any opportunities for the Foxboro Green community.

What does it mean to you?
Current and future needs may require the construction of new water supply and wastewater infrastructure, or upgrades to existing facilities, which may also need land acquisition. This is your opportunity to get involved with the planning process.
Municipal Class Environmental Assessment Process

This Servicing Review will be completed to satisfy the first two phases of the Municipal Class EA process for projects which will be identified through the study.

**Phase 1**
- Identify the problem/opportunity.

**Phase 2A**
- Develop alternative solutions.

**Phase 2B**
- Select preferred solution.

**Phase 2C**
- Servicing Study/Project File Report.

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**Continuous Stakeholder Engagement**

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PCC #1

We are here

Notice of Study Completion issued for Schedule ‘B’ Projects, 30-day review period
Findings Presented in Previous Consultation

In PCC#2, the following areas requiring further study were presented:

• Need for Future Water Storage
• Need for Wastewater Servicing in Baden
• Need to consider the future Water and Wastewater Servicing for the Foxboro Community
Evaluation of Needs

The study considered the future requirements of water and wastewater servicing for both the existing community as well as planned growth within the Urban Area Boundary under the current Official Plan.

Shown in yellow are development areas in the Official Plan.
Review of Alternative Solutions Presented at PCC#2

Requirement for Future Water Storage:
- Alternative WS1 - Do nothing
- Alternative WS2 - Provide increased storage at the New Hamburg Water Treatment Plant
- Alternative WS3 - Provide new storage at the Baden Wells site
- Alternative WS4 - Provide new storage at the Shingleton/K50 Wells site

Future Wastewater Servicing in Baden:
- Alternative WW1 - Do nothing
- Alternative WW2 - Upgrade system and maintain existing configuration
- Alternative WW3 - Upgrade system and convey directly to Morningside Pump Station
- Alternative WW4 - Upgrade system and convey directly to New Hamburg Wastewater Treatment Plant

Future Water and Wastewater Servicing for the Foxboro Community:
- Alternative F1 - Do nothing and carry out necessary upgrades
- Alternative F2 - Provide connection to the existing Baden sewer and water supply system using existing road allowances
- Alternative F3 - Provide connection to the existing Baden sewer and water supply system using a direct route
- Alternative F4 - Provide connection to the existing New Hamburg sewer and water supply system using existing road allowances
Evaluation of Alternative Solutions

The alternative solutions have been evaluated based on their performance against the following criteria categories:

- **Natural**: protecting significant natural and physical elements of the environment.
- **Social**: evaluates potential effects on residents, neighbourhoods, businesses, historical/archaeological and heritage components.
- **Technical**: considers compliance with regulations and policies, as well as the technical suitability and other engineering aspects.
- **Financial**: addresses the potential servicing costs.

### Legend for Evaluation Scoring

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<thead>
<tr>
<th>Graphic</th>
<th>Rating</th>
<th>Description</th>
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## Evaluation of Alternative Solutions – Water Storage (WS)

<table>
<thead>
<tr>
<th>Factors and Criteria</th>
<th>Alternative WS1 – Do Nothing</th>
<th>Alternative WS2 – Provide increased storage at the New Hamburg Water Treatment Plant</th>
<th>Alternative WS3 – Provide new storage at the Baden Wells site</th>
<th>Alternative WS4 – Provide new storage at the Shingletown/K50 Wells site</th>
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<td>Moderately Preferred</td>
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Preliminary Preferred Alternative – Increased Storage at New Hamburg Water Treatment Plant

- Meets long term capacity requirements
- Provides redundancy with existing New Hamburg reservoir
- Can be accommodated within existing property, although existing open space site will be fenced off to the public
- Construction will result in temporary noise impacts to nearby-properties and increased truck traffic
## Evaluation of Alternative Solutions – Wastewater Servicing in Baden (WW)

<table>
<thead>
<tr>
<th>Factors and Criteria</th>
<th>Alternative WW1 – Do Nothing</th>
<th>Alternative WW2 – Upgrade system and maintain existing configuration</th>
<th>WW3 – Upgrade system and convey directly to Morningside Pump Station</th>
<th>Alternative WW4 – Upgrade system and convey directly to New Hamburg Wastewater Treatment Plant</th>
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<td>• Estimated 50-Year Lifecycle Costs: $17.7M</td>
<td>• Estimated 50-Year Lifecycle Costs: $33.3M</td>
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<td>Moderately Preferred</td>
<td>Preferred</td>
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City of Waterloo
Preliminary Preferred Alternative—Upgrade System and Convey Directly to New Hamburg Wastewater Treatment Plant

- Includes upgrades to the Baden Wastewater Pumping Station and a new forcemain (buried pipe) from the Baden Pumping Station to the New Hamburg Wastewater Treatment Plant.
- Alignment options for the forcemain were reviewed and shown is the recommended.
- The alignment avoids complex construction in the Morningside retirement community.
- Crossing the Nith River would be accomplished by attaching the pipe to the existing bridge.
- Optimizes existing infrastructure investments and requires least amount of infrastructure.
- Easements/property access agreements will be required to accommodate new infrastructure.
# Evaluation of Alternative Solutions – Foxboro Green

<table>
<thead>
<tr>
<th>Factors and Criteria</th>
<th>Alternative F1 – Do Nothing</th>
<th>Alternative F2 – Connect Foxboro to Baden via Existing Right-of-Ways</th>
<th>Alternative F3 – Connect Foxboro to Future Expand Baden Service Area using a Direct Route</th>
<th>Alternative F4 – Connect Foxboro to New Hamburg via Right-of-Ways</th>
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</table>
| Provides low lifecycle costs | • Minimize capital, operation and maintenance (life cycle) costs over a 50-year period. | • Estimated Initial Capital Cost: $7.7M  
• Estimated 50-Year Lifecycle Costs: $35.1M | • Estimated Initial Capital Cost: $7.6M  
• Estimated 50-Year Lifecycle Costs: $17.7M | • Estimated Initial Capital Cost: $3.0M  
• Estimated 50-Year Lifecycle Costs: $9.9M  
• Estimated Initial Capital Cost: $8.4M  
• Estimated 50-Year Lifecycle Costs: $19.0M |
| SUMMARY              | Least Preferred            | Moderately Preferred                                                | Preferred                                                       | Moderately Preferred                                         |

The selected alternative is Alternative F4 – Connect Foxboro to New Hamburg via Right-of-Ways.
Preliminary Preferred Alternative– Connect Foxboro to Baden using a Direct Route

- Provides Foxboro with reliable water supply (by Baden supply system) and wastewater services (through the Baden-New Hamburg wastewater collection system).
- Road closures in the Foxboro community may be required during construction.
- Forcemain location would require agreements with property owners and stakeholders.
Proposed Projects Addressed by this Study

In summary, the following projects are proposed:

1. Increasing water storage at the New Hamburg Water Treatment Plant.

2. Upgrading the Baden Pumping Station and new forcemain connecting directly to the New Hamburg Wastewater Treatment Plant.

3. Connect Foxboro to the Baden water supply system; also connect to the Baden-New Hamburg wastewater system.

The Schedule B Municipal Class EA study requirements will be deemed complete following the 30-day public review period of the Servicing Study/Project File Report. The Region may then proceed to the design phase and tender for construction.
Next Steps

- **Review Background Information**
  - Collect data, review existing conditions and identify project constraints and opportunities

- **Public Consultation Centre #1**
  - Introduce the project

- **Develop and Evaluate Alternatives**
  - Develop and evaluate alternatives to address current and future servicing needs

- **Public Consultation Centre #2**
  - Obtain input on alternatives

- **Identify Preferred Alternative**
  - Identify preferred alternatives, develop and evaluate the design of the preferred alternatives

- **Public Consultation Centre #3**
  - Present preliminary preferred alternatives

- **Servicing Study/Project File Report (Summer/Fall 2022)**
  - Publish for 30-day public review

- **Future (late 2022/2023)**
  - Proceed to design and tender for construction

**Continuous Stakeholder Engagement**

We are here

Represents an opportunity for the public to provide input
Thank you for your participation!

We want your feedback

Do you have questions, feedback, comments, or want to stay up to date on what’s being evaluated as part of this project?

Please contact:

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More information, including copies of project notices, comment sheet and Public Consultation Centre materials like a transcript of this virtual presentation can be found at:  
https://www.regionofwaterloo.ca/waterprojects