Class Environmental Assessment and Conceptual Design of the Heidelberg Water Supply System

Schedule B Municipal Class Environmental Assessment Virtual Public Consultation Centre #2
Welcome!

Goals of this Public Consultation Centre

- Provide an update on the Study since Public Consultation Centre (PCC) 1
- Provide an overview of the Evaluation of Alternative Solutions
- Provide an overview of the Preliminary Preferred Alternative
- Provide an opportunity for you to learn about the project and get involved

https://www.regionofwaterloo.ca/CurrentWaterProjects/

https://www.youtube.com/user/regionofwaterloo
Project Overview

What are we doing?
We are planning a long-term water servicing solution for the community of Heidelberg.

Why are we doing it?
The current water supply system serves Heidelberg. A recent condition assessment identified that significant components will reach the end of their service life within the next five years. We are taking steps now to ensure we are ready to provide ongoing water servicing to the community.

What does it mean to you?
In addition to exploring the potential to upgrade the existing Heidelberg Water Treatment Plant, the project is also assessing alternative opportunities to supply drinking water. One such opportunity is to supply Heidelberg from the St. Clements water supply system. The project will not add municipal water supply servicing to areas where it is not currently provided.
Study Area

This figure shows the extent of the Study Area that encompasses the communities of Heidelberg and St. Clements.
Overview of PCC #1 Feedback

The PCC 1 video presentation was available for viewing online between May 28 to June 30, 2021. The following feedback received was incorporated into the evaluation:

- Provide efficient water treatment while protecting the natural environment, reducing greenhouse gas emissions, and maintaining drinking water quality including aesthetic considerations (taste and smell).
- Minimize impact on environmental features and property; reduce noise or property disruptions where possible.
- Consider operational and climate change. Plan backup power for power failures.
- Confirm capacity is available to address current and future water supply needs.
- Efficient investments needed.
Municipal Class Environmental Assessment Process

This project is classified as a **Schedule B project**, which includes the completion of Phases 1 and 2 of the Class EA process.

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

**Phase 2**
Develop/evaluate alternative solutions and identify preferred solution

**30-day public review period**
Summarize the project in a Project File Report.

**Public Consultation Centre #1**

**Public Consultation Centre #2**

**Continuous Stakeholder Engagement**

We are here
Evaluation Criteria

Alternative solutions have been assessed based on these criteria presented in PCC#1:

Social/Cultural
- Minimizes impacts on existing residences, businesses, and community features (short-term & long-term)
- Potential effects on approved/ planned land uses
- Protects cultural heritage & archaeological features
- Protects public health and safety

Technical
- Minimizes land requirements
- Provides reliable & resilient service
- Meets existing and future needs
- Aligns with existing and planned infrastructure improvements
- Aligns with existing and future land use
- Constructability

Natural Environment
- Protects environmental features
- Protects wildlife and species at risk
- Protects groundwater, streams, and rivers
- Minimizes climate change impacts

Financial
- Provides low lifecycle costs
Identification of Alternative Solutions

**Alternative 1: Do Nothing:** Involves conducting no upgrades at the Heidelberg WTP. Carried forward for comparison purposes and in accordance with EA requirements.

**Alternative 2: Upgrade Heidelberg WTP:** Implement upgrades to the existing Heidelberg WTP. Allow the plant to continue supplying Heidelberg in the long-term.

**Alternative 3: Supply Water from St. Clements to Heidelberg via a new Transmission Main and Decommission the Heidelberg WTP (1.1 km connection):** Use a new transmission main to connect the St. Clements and Heidelberg Water Supply Systems (WSS).

**Alternative 4: Connect the St. Clements distribution system and the existing Heidelberg WTP storage tank (3 km connection):** Partial decommissioning of the treatment processes at Heidelberg WTP, but maintains the existing storage tank, high-lift pumps, and direction of flow in the distribution system.
Alternative Solutions

The figure identifies the location of the alternatives.

- **Alternative 2**: upgrades at the existing Heidelberg Water Treatment Plant (WTP).

- **Alternative 3**: Lobsinger Line connection.

- **Alternative 4**: uses Lobsinger Line, Kressler Road as well as local streets.
# Summary of the Evaluation of Alternatives

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Alternative 1: Do Nothing</th>
<th>Alternative 2: Upgrade Heidelberg WTP</th>
<th>Alternative 3: Supply from St. Clements distribution system (DS) to Heidelberg distribution systems (DS); Decommission Heidelberg WTP</th>
<th>Alternative 4: Supply water from St. Clements DS to fill Heidelberg storage tank</th>
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**Legend**
- Very well aligned with criteria
- Somewhat aligned with criteria
- Low alignment with criteria

**Preliminary Preferred Alternative**
Preliminary Preferred Alternative: Alternative 3

Key features:
- Connection of the St. Clements and Heidelberg Distribution Systems via ~1.1 km transmission watermain along Lobsinger Line
- Metering Chamber on Lobsinger Line – location to be confirmed (see photo)
- Decommission existing Heidelberg Water Treatment Plant

Discussion:
- Lower operational and maintenance costs – only one plant needed
- Lower greenhouse gas emissions
- St. Clements has enough capacity to provide the water supply for both communities
- Shorter transmission main results in a smaller footprint.
Upon completion of the Class EA Study, the following will be undertaken:

**Conceptual Design:** Fall 2022  
**Detail Design:** early 2023  
**Construction:** late 2023 - 2024
Thank you!

Please fill out a comment sheet found at the Region of Waterloo website below, or send any comments to the team members by July 7, 2022

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