PIC#1 Transcript

Project: LAWSS Master Plan Update

Date Posted: July 23rd, 2025

Presented by: Lambton Area Water Supply System (LAWSS) and CIMA+

Video Link: Link posted on the LAWSS Website

Slide 1 - Title Slide

Hello and welcome to the first Public Information Centre for the Lambton Area Water Supply System (or LAWSS for short) Master Plan Update Municipal Class Environmental Assessment Study. My name is Matt Phillips, the consultant project manager from CIMA+, and I will be presenting on behalf LAWSS.

A transcript of this presentation and PDF copy of the slides are being made available on the LAWSS website.

At the end of this presentation, you will find the contact information for the project leads. Please reach out to us, we welcome your comments, suggestions and feedback.

Slide 2 – Lambton Area Water Supply System (LAWSS)

The Lambton Area Water Supply System (LAWSS) supplies water to over 100,000 customers within three subsystems or pressure zones that service six member municipalities:

- Municipality of Sarnia
- Village of Point Edward
- Township of St. Clair
- Municipality of Lambton Shores (mostly residents of the town of Forest)
- Town of Plympton-Wyoming
- Township of Warwick-Watford

LAWSS also supplies water to the municipality of Brooke-Alvinston. During emergencies, LAWSS can also supply Petrolia and Chatham-Kent.

LAWSS is responsible for the treatment and distribution of water to municipalities and customers. The water system consists of the LAWSS Water Treatment Plant, and a system of water distribution pipes called watermains.

The system is geographically divided into three areas or pressure zones.

- The Water Treatment Plant (WTP) subsystem (Zone 1) primarily includes Sarnia, Point Edward, and St. Clair
- The Forest subsystem (Zone 2) includes Forest and parts of Plympton-Wyoming
- The Watford subsystem (Zone 3) includes Warwick-Watford and parts of Plympton-Wyoming

LAWSS is responsible for the treatment and distribution of drinking water in much of Lambton County. The County is growing, and communities need sustainable water servicing for the future. In 2021, LAWSS completed a Water System Master Plan. The Master Plan establishes a 20-year strategy to provide reliable drinking water infrastructure in the LAWSS service area. LAWSS is reviewing and updating its 2021 Master Plan with a 20-year planning horizon (2026–2046).

Slide 3 – Objectives

This Master Plan follows the Municipal Class Environmental Assessment process, or Municipal Class EA for short. More specifically, this study will follow Approach #1 for Master Plans. This means that the study will complete a preliminary evaluation of the high-level impacts of broad project alternatives identified under the Master Plan, but projects falling under Schedule B or C, as defined in the Municipal Class EA process, will undergo separate EA studies at a later time.

The primary goal of this EA is to carry out meaningful consultation with the public and other interested parties, then apply feedback in Master Plan development.

This virtual Public Information Centre (PIC) presents:

- An introduction to the study and EA process
- The draft problem / opportunity statement (which is open to your feedback)
- An overview of the existing system, challenges, and opportunities
- Evaluation criteria developed so far (also open to your feedback)

Slide 4 – Municipal Class EA Process for Master Plans

The Municipal Class EA is a regulated process to guide the planning of public infrastructure. It provides opportunities for the public, government agencies, First Nation and Metis communities, and other interested persons to give feedback and guide decision making.

In simple terms, the Municipal Class EA process approach #1 for Master Plans consists of 4 steps:

Step 1 involves defining the problem. This means understanding the existing challenges in the system and identifying future needs. Having a clear problem definition allows us to come up with appropriate solutions.

A Notice of study commencement is issued at this stage to announce the official start of the project and to invite comment and feedback. The Notice of Commencement for this project was first issued via email and made available on the LAWSS website on Wednesday, July 16, 2025.

The second step involves considering opportunities and overall strategies to address identified system challenges and developing a list of evaluation criteria to assess alternative solutions. The criteria should assess project impacts to the natural environment, social/cultural impacts, technical merits and financial costs.

This Public Information Centre presents the findings of the first two steps to get feedback from you: the residents, business owners and visitors of Lambton County, especially those who are users of or otherwise interested in the Lambton Area Water Supply System.

The third step will involve narrowing broad strategies down to more specific potential solutions and evaluating each alternative solution based on the identified criteria. The preferred solution will not necessarily be the one with lowest cost, but the one that combines technical performance with reduced or minimal impact to the natural and social environments.

The fourth step of the process is to document the findings of the Study. The findings are summarized in a Master Plan Report which will be made available on the LAWSS website and sent to those that have expressed interest in the project. A Notice of Master Plan will be published when the Report is available. After a 30-day review period, the Class EA Master Plan Study will be considered complete.

After completing the Master Plan, any projects defined as Schedule A and A+ may proceed to design and construction. Schedule B and C projects will still need to undergo separate detailed EA studies before being implemented.

Slide 5 – We Want to Hear From You

The project team wants to get your input after you view this public information centre, which will be available online until August 13th, 2025. Here we've indicated some topics that interested persons may want to comment on, but we welcome all feedback.

A transcript and PDF copy of the slides are also being made available on the LAWSS website. If you would like access to PIC materials in an alternate format, such as a hard copy, please reach out to LAWSS at the phone number shown here or by email.

Slide 6 – Role of Master Planning

Master plans for water supply systems are critical to ensuring that a safe and sustainable water supply can be provided as communities grow and develop. Master Plans aid with:

- Long-term planning and budgeting
- Delivery of infrastructure
- Emergency preparedness and system resilience
- Resource management

LAWSS is reviewing and updating its 2021 Master Plan. This Master Plan update will reflect recent population growth and address current and projected service challenges.

The Master Plan will be used as a basis for planning future projects and completing project-specific EA studies.

Slide 7 – Problem/Opportunity Statement

Creating a problem and opportunity statement for a Master Plan requires an understanding of the existing challenges in the system and future needs. These statements help to guide the development of focused and efficient solutions.

The draft problem and opportunity statement for this project is shown here. A major driver behind the "problems" facing LAWSS is the recent population growth in Lambton County.

Slide 8 – Projected Growth in LAWSS Service Area

Growth has accelerated since the completion of the 2021 Master Plan, and this trend is expected to continue. The populations of member municipalities are projected to increase between 15% and 42% from 2024 to 2046. A review of the 2021 Master Plan is needed to make sure that recent and future population growth are properly accounted for.

Slide 9 – LAWSS System Components

This figure shows the components of LAWSS and the flow of water within and between the three pressure zones (or subsystems). LAWSS owns one water treatment plant, seven storage facilities (which include reservoirs and standpipes), as well as four pumping stations. There are also four facilities in the system which are owned and operated by the member municipalities, shown in grey.

Source water from the St. Clair River is treated at the LAWSS Water Treatment Plant (WTP) to produce clean, safe drinking water. This water is pumped through the WTP high lift pumping station (HLPS) into the WTP subsystem, also called Pressure Zone 1, which primarily serves Sarnia, Point Edward and St. Clair. Additional water storage is provided by the West Lambton Reservoir, which is generally filled when water demand is low and drawn from via the West Lambton Pumping Station (WLPS) when water demands increase.

Water from the WTP subsystem also flows to the East Lambton Reservoir and is pumped via the East Lambton Pumping Station (ELPS) to serve the Forest subsystem (Pressure Zone 2) and the Watford subsystem (Pressure Zone 3).

Standpipes and water towers provide additional water storage and help maintain system pressure levels when pumps are offline.

Slide 10 - Master Plan Opportunities and Challenges

Challenges facing the LAWSS system have been identified, including population growth, areas of low pressure, and aging infrastructure. Opportunities and broad strategies to address these challenges have been considered in the early stages of this project, including facility optimization, increasing storage, and improvements to monitoring. Some of these challenges were also the focus of the previous 2021 Master Plan

Slide 11 – 2021 Master Plan Progress

The previous 2021 Master Plan identified 3 primary challenges or issues facing the LAWSS system. A project was proposed to address each issue. Two out of three projects are currently in the detailed design phase. Where needed, this Master Plan update will include assessment of the system after these projects are complete and consider what additional system updates will be necessary within the next 20 years.

Additional broad project alternatives will also be developed to address other identified challenges and meet evolving servicing needs in the LAWSS service area.

Slide 12 – What Is the Evaluation Process?

Once broad project alternatives are generated for the LAWSS system, each will be evaluated in detail.

Hydraulic modelling of the water system under various scenarios will assess how well each alternative meets the technical needs of the system.

High-level assessments of the alternatives for social, environmental, and financial impacts will be conducted. Anticipated tasks could include preliminary cost estimates, or screening for sensitive ecosystems and natural features near potential project locations. Each project alternative will be given a score for each evaluation category.

Slide 13 –Evaluation Criteria

During the evaluation process, the team will compare project alternatives based on five categories of criteria: Social, Natural, Financial, Technical and Land-related factors.

The preferred solution is one that reduces overall impacts and provides the required technical performance while minimizing lifecycle costs.

For each project alternative, its resilience to, or potential to contribute to environmental risks or climate change will be considered.

Slide 14 – Thank you!

Before we make any big decisions, we need to hear from you, the residents and business owners of Lambton County, LAWSS customers and all interested persons.

We want to know your concerns and preferences, so that we can plan ahead. You are invited to get involved by reaching out to our project team. You can stay informed by checking our website or through the project Notices posted on the website.

We will review all feedback and comments received during the project. These are important as they will help us make sure the preferred solution considers your concerns and preferences. Once we have done that, we will confirm the preferred solution.

Thank you for helping us shape the future of drinking water infrastructure in Lambton County.

END OF TRANSCRIPT