



# Ajax Water Supply Plant Expansion Public Information Centre

March 24, 2026



+ **Jacobs** + **RVA**

# Welcome

The Region of Durham welcomes you to this Public Information Centre (PIC) regarding the expansion to the Ajax Water Supply Plant (WSP). Through this PIC, we will share study objectives, findings to date, and next steps for the Class Environmental Assessment (Class EA) Addendum.

Please review the material and provide us with comments. Your input is important to the Class EA process. Staff and the project team are available to answer your questions and receive your comments. Comment sheets are also available for you to fill out.

Thank you for attending this Public Information Centre.

**Please sign in**

# Land Acknowledgement

The Region of Durham exists on lands that the Michi Saagiig Anishinaabeg inhabited for thousands of years prior to European colonization. These lands are the traditional and treaty territories of the Nations covered under the Williams Treaties, including the Mississaugas of Scugog Island First Nation, Alderville First Nation, Hiawatha First Nation, Curve Lake First Nation, and the Chippewa Nations of Georgina Island, Beausoleil and Rama.

We honour, recognize, and respect Indigenous Peoples as rights holders and stewards of the lands and waters on which we have the privilege to live. In our efforts towards reconciliation, we continue to build and strengthen relationships with First Nations, as well as the large Métis communities and growing Inuit communities here in Durham. We commit to learning from Indigenous values and knowledge, building opportunities for collaboration, and recognizing that we are all connected.

# Agenda

1. Purpose of the PIC
2. Background on the Ajax WSP Expansion
3. Class EA Addendum Process
4. Field Studies at the Ajax WSP
5. Objectives of the Ajax WSP Expansion
6. Existing Ajax WSP Water Treatment Processes
7. Identification and Evaluation of Treatment Alternatives
8. Modernization and Resilience Considerations
9. Rightsholders, Stakeholders and Public Engagement
10. Potential Impacts and Mitigations During Construction
11. Waterfront Trail Impacts and Relocation Alternatives
12. Architectural Renderings
13. Next Steps, Project Schedule and Feedback

# Purpose of this Public Information Centre



To offer background information and explain the need for increased water treatment capacity and technological improvements needs at the Ajax WSP.



To provide an overview of:

- The Class EA Addendum process
- Current findings of the Class EA Addendum
- Recommended alternative for the Ajax WSP Expansion



To gather your feedback, address your questions, and maintain transparent and accountable decision making regarding the Ajax WSP Expansion project.

# Background on the Ajax WSP Expansion

## What are we doing?

- The Region of Durham is completing a Class EA Addendum to support expansion of the Ajax WSP.

## Why are we doing it?

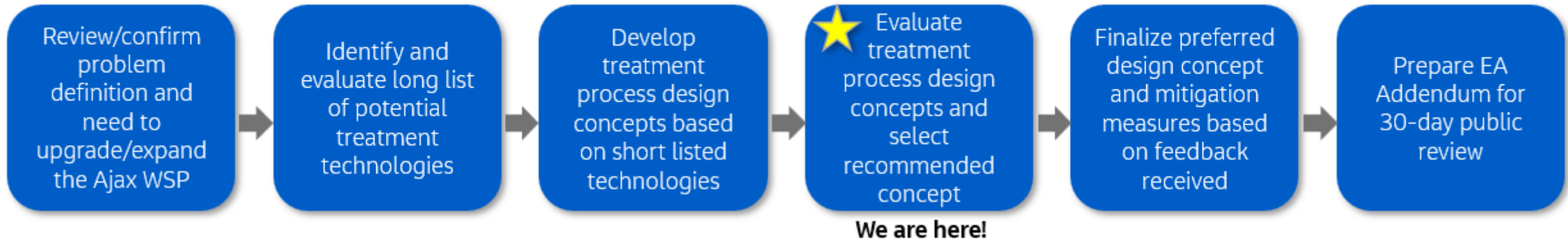
- The Region of Durham's official plan projects significant population growth into 2050.
- Expansion of the Ajax WSP, at the current site, is required to satisfy future water demand.
- Upgrades will optimize plant performance, including reducing incidences of taste and odour.
- Plant improvements will address anticipated climate impacts and community needs and repair or update existing infrastructure to optimize plant performance.
- The expansion will modernize equipment and address issues with aging infrastructure.



Figure 1: Ajax Water Supply Plant, 75 Lake Driveway East, looking southwest

# Class Environmental Assessment Addendum Process

## Ajax WSP Class Environmental Assessment Addendum



The Class EA Addendum is an update of the original Class EA completed in 1991 for the Ajax WSP.

The original 1991 Class EA considered a future expansion of the plant to meet population growth in Durham. The Class EA Addendum considers environmental, cultural and social changes to the study area. This Class EA Addendum is undergoing a similar level of assessment, consultation with public, agencies and Indigenous communities as a standalone Class EA.

# Study Area



Figure 2: Project study area



Figure 3: Key map showing location of Ajax WSP

The study area in figure 2 represents where direct or likely impacts will occur and does not mean that the entire area will be used for the plant expansion.

Some studies (e.g. Natural Environment) cover a larger area as shown in later sections.

# History of the Ajax Water Supply Plant Site



Figures 4 - 9: Historical images of Ajax Water Supply Plant from 1988 - 2022

# Natural Environment Features

## Completed Studies

- Identification of natural heritage features and Species at Risk (SAR) screenings.
- Field studies identifying flora, fauna, trees, birds and other species native to the area.
- Field study identifying wetland status in the study area.

## Findings

- No protected species identified in study area.
- Property consists of manicured lawns, landscape plantings and pollination meadow.



**Figure 10: Natural Environment study area**

**Note:** The outlined study area in Figure 10 covers the area where existing desktop studies were undertaken and where additional studies may be needed but does not reflect the extent to which the Ajax WSP will be expanded.

# Cultural Features

## Archaeology

- Completed Stage 1 and 2 archaeological assessments with onsite rightsholders presence.
- Archaeology assessment found no archaeological resources.
- No further concerns for archaeological potential pending acceptance by the Ministry of Citizenship and Multiculturalism.

## Cultural Heritage

- Completed Cultural Heritage Identification Study.
- Cultural Heritage Existing Conditions and Preliminary Impact Assessment completed.
- Cultural resources in the area include Waterfront Trail and Veteran's Point Gardens.

**Note:** The outlined study area in Figures 11 and 12 cover the area where existing studies were undertaken and where additional studies may be needed but does not reflect the extent to which the Ajax WSP will be expanded.



Figure 11: Stage 2 Archaeological Study Area



Figure 12: Cultural Heritage Study Area

# Objectives of the WSP Expansion

## Additional Capacity to Support Growth



Treatment

Pumping

Storage

## Improved Water Quality and Treatment Capabilities



Treat Lake Ontario water using multiple processes to support community health

Improve taste and odour

Increase protection for algae events

## Resilience and Modernization



Install modernized equipment and address issues with aging structures

Prepare for changing climate, environmental, and regulatory conditions

# Existing Treatment Process at Ajax WSP

## Pre-Treatment

Addition of coagulants (alum) to enhance filtration.

## Taste and Odour Control

Filters remove low levels of unpleasant taste and odour.

## Filtration

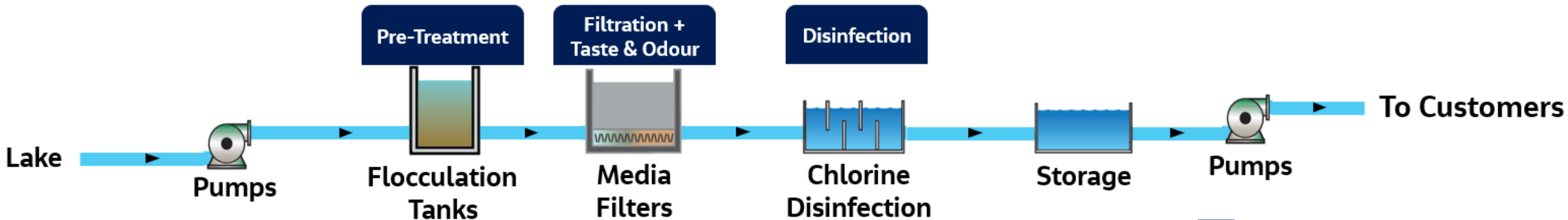
Filter media removes particles from Lake Ontario raw water.

## Disinfection

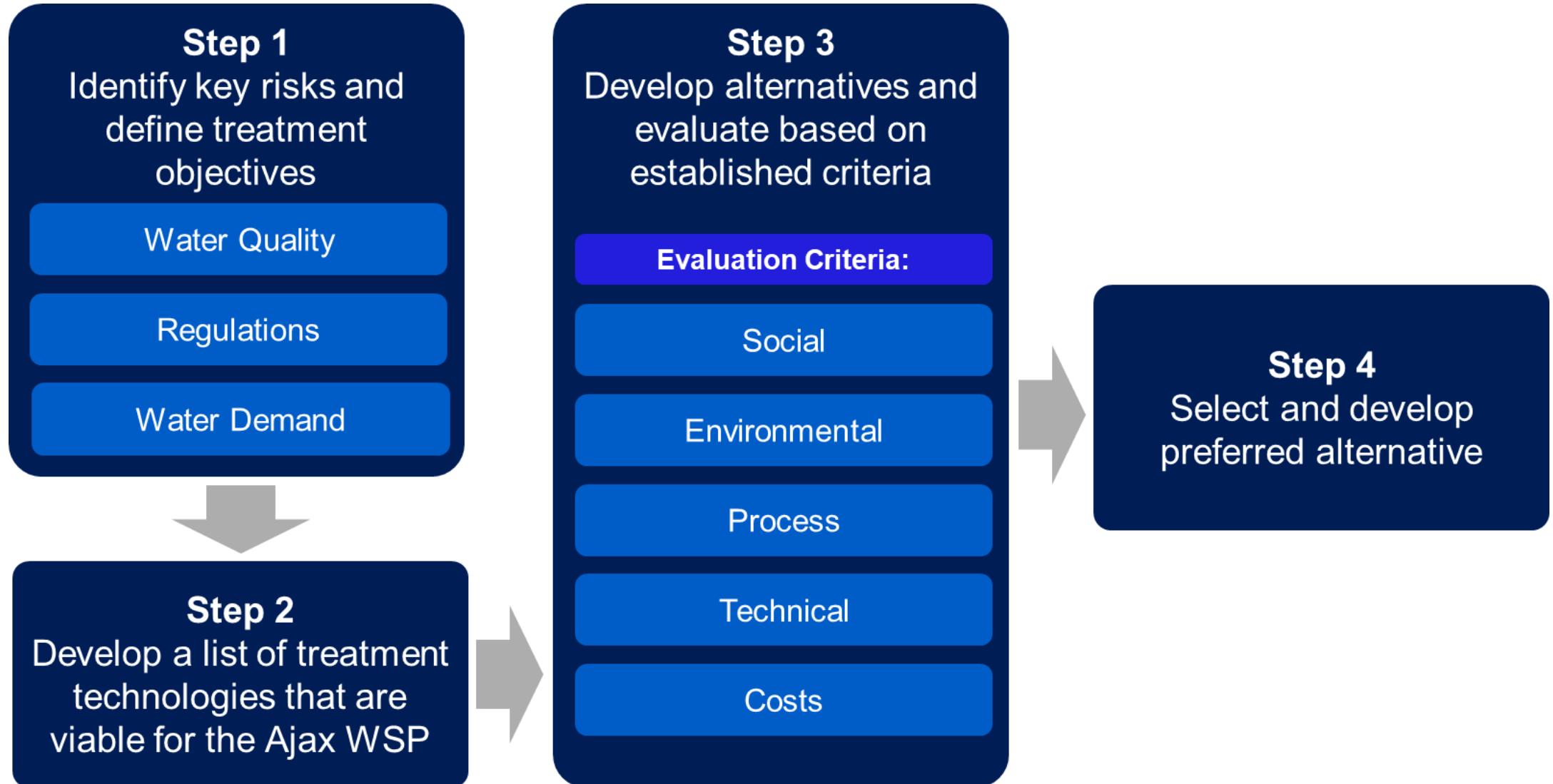
Addition of liquid chlorine to maintain compliance with MECP regulations.



Figure 13: Existing Building Arrangement for the Ajax WSP

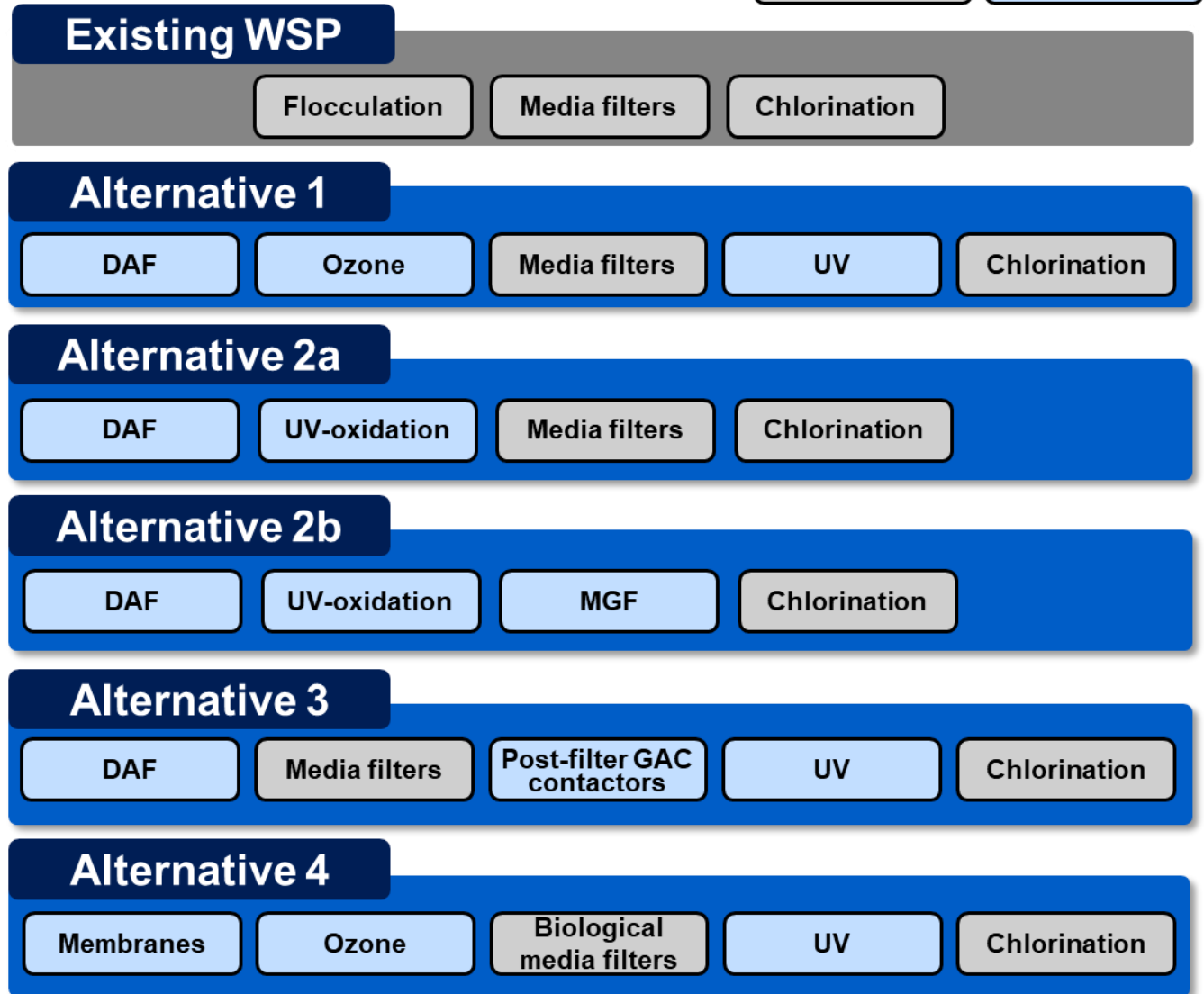
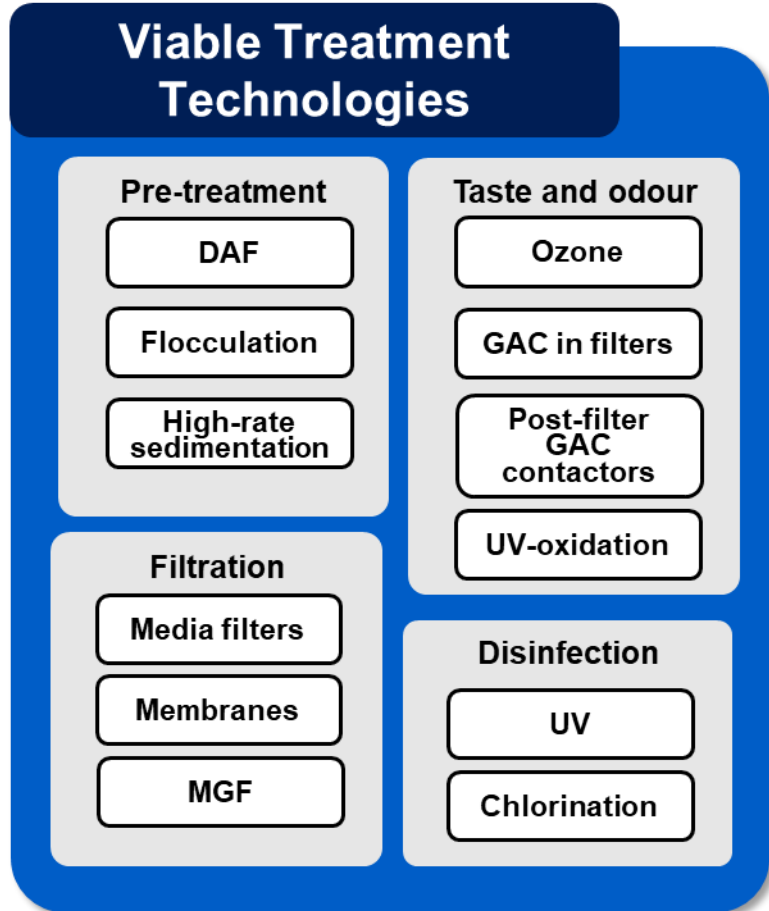


# Treatment Alternative Development Process



# Treatment Technologies Evaluated

Existing New



DAF: Dissolved Air Flotation  
 GAC: Granular Activated Carbon  
 UV: Ultraviolet  
 MGF: Membrane Gravity Filtration

# Treatment Train Evaluation Criteria



## Social Considerations

Impacts to the community during construction and operation



## Environmental Considerations

Impacts to the natural environment and conservation goals



## Process Performance

Safe and reliable drinking water supply



## Technical Considerations

Impacts to operations during and after construction, including health and safety of operators



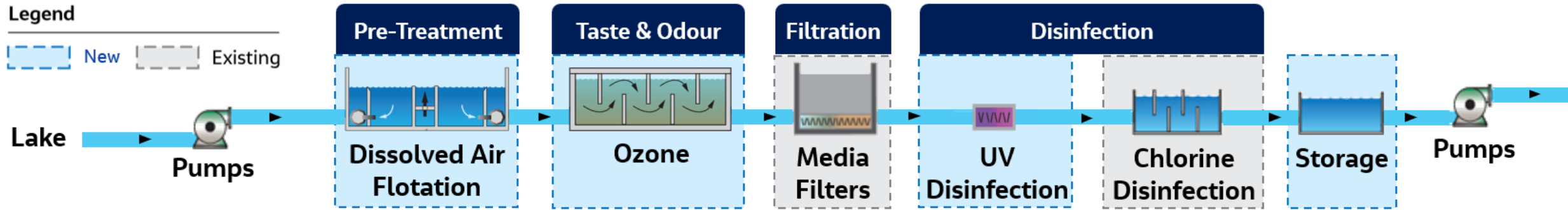
## Life Cycle Costs

Capital, operations and maintenance costs

# Treatment Train Alternative Evaluation

Criteria	Alternative 1	Alternative 2a	Alternative 2b	Alternative 3	Alternative 4
Social					
Environmental					
Process Performance					
Technical					
Cost					
Overall Ranking	<b>1st</b>	3rd	5th	4th	2nd
<b>Moderate</b>		<b>Preferred</b>		<b>Most Preferred</b>	

# Recommended Treatment Alternative for Expansion



## Social and Construction Impacts to Neighbourhood

- Lowest additional building footprint required
- Less truck traffic during construction
- Partnering with Toronto & Region Conservation Authority (TRCA) to establish property acquisition needs for expansion

## Environmental impacts

- Reduced greenhouse gas emissions and waste

## High Process Performance

- Accommodates population growth while providing high quality water
- Improved performance for taste and odour, algae
- Allows for future upgrades, if necessary

## Costs

- Lowest lifecycle (operations and capital) cost
- Responsibly manages available resource

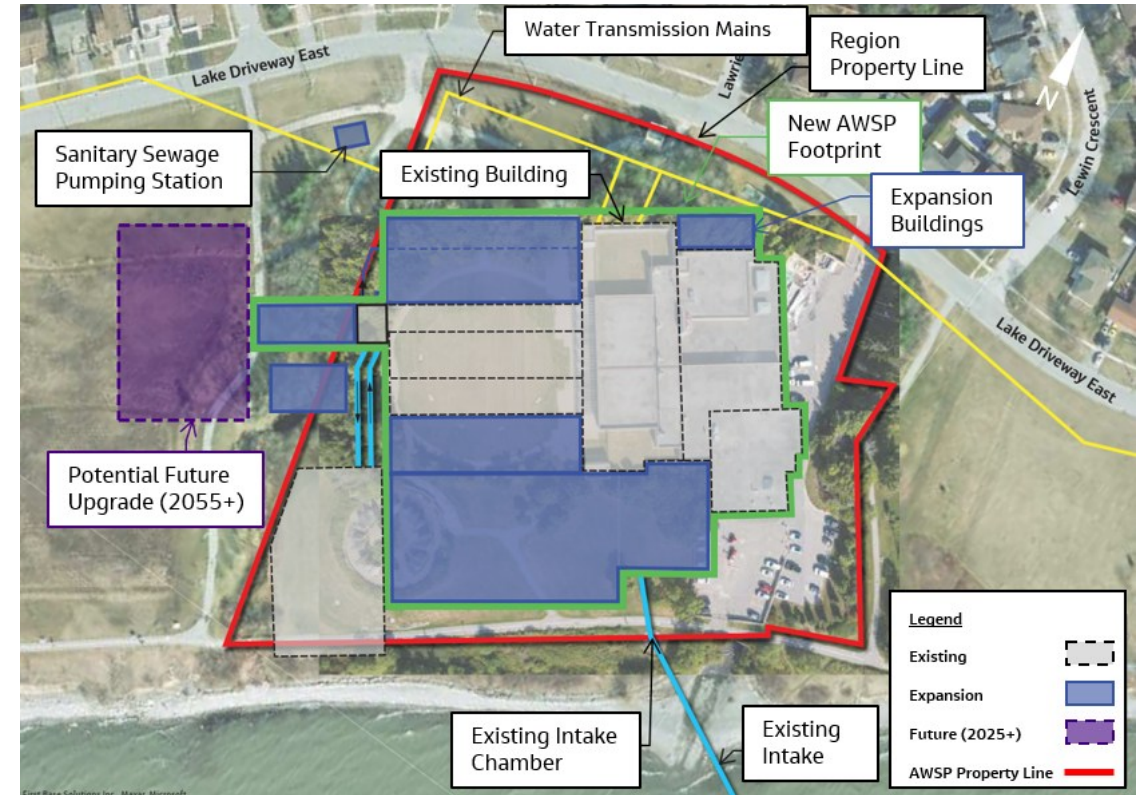


Figure 14: Conceptual Site Layout for Preferred Expansion Alternative

# Modernization and Resilience Efforts

## Background

- The Ajax WSP is nearly 30 years old, and many assets are nearing the end of their service life.
- Necessary infrastructure upgrades were identified in a condition assessment of the Ajax WSP.

## How are we modernizing?

- Replacement of sewage pumping station which services both the plant and residents.
- Upgrading electrical, HVAC, mechanical, software and structural assets and infrastructure.



Figure 15: Lakeshore Sanitary Sewage Pump Station, looking southwest

# Indigenous Consultation and Community Engagement

## Active and Completed Engagement Efforts

- Public Information Centre
- Indigenous community presence during field studies
- Email correspondence
- Public notices
- Stakeholder mailing list
- Indigenous community mailing list
- Town of Ajax Trailfest event booth
- Surveys to public members

## Noted Concerns

- Construction vehicle traffic
- Impacts to views and local character
- Noise and dust
- Waterfront Trail relocation
- Site restoration after construction

## Stay Connected

- Feedback is important to the project. We want to keep hearing from you, during the Class EA Addendum.
- Continual updates to project website as new information becomes available
- Open channels to connect with project team



Figure 16: Project Team at Audley Recreation Centre for Town of Ajax Trailfest Event, June 2025. Photographer: Eileen Nixon



Figure 17: Project Team speaking with public members outside of Ajax WSP at Town of Ajax Trailfest Event, June 2025. Photographer: Laurie Boyce

# Potential Impacts and Mitigations During Construction



Figure 18: Construction Impact Overview

## Noise, Visual, Vibrations and Dust

- To reduce public disruption and support community health, construction will abide by Town of Ajax noise bylaws.
- Construction barrier (e.g. hoarding, fence, silt fence, etc.) to minimize dust and debris entering the community.
- Additional dust suppression measures to be taken (low dust construction traffic routes).
- Some trees will be removed along perimeter of WSP (to be replaced after construction). Dedication trees will be protected and maintained.
- Construction will likely use mobile and tower cranes west of existing buildings.

**Note:** Proposed construction disturbance area is preliminary and subject to change pending further investigations, design and approvals.

# Potential Impacts and Mitigations During Construction (Continued)



Figure 19: Construction Impact Overview

## Construction Vehicle Traffic

- Construction vehicles will enter and exit site through intersection at Harwood Avenue.
- Veteran's Point Gardens will remain accessible.
- Construction vehicles may occasionally travel down Lake Driveway East.
- Regular plant operations (non-construction) will continue using entrance on Lake Driveway East.

## Natural Environment Features

- Collaborating with the TRCA to preserve, restore, and respect natural environment features.
- Undertaking vegetation clearing and site preparation within permitted timeframes to minimize impact to wildlife breeding and migration.
- Developing a shoreline erosion and sediment control plan in coordination with the TRCA.
- Collaboration with the Town of Ajax to provide access for maintenance of dedication trees.

**Note:** Proposed construction disturbance area is preliminary and subject to change pending further investigations, design and approvals.

# Mitigation after Construction



**Figure 20:** Artistic Conceptual Rendering #1 of Ajax WSP Expansion Looking West

Note: This is a preliminary rendering and is subject to change.

## Park Access

- Restoration of an accessible, lively and culturally welcoming public space with access to nature.

## Park and Site Restoration

- Project team will coordinate restoration efforts with Town of Ajax, TRCA and Indigenous communities.
- Affected areas will be restored to a status similar but not necessarily identical to pre-construction conditions.
- Disturbed trees will be replanted on a one-to-one ratio in areas near and in the new WSP site boundaries.
- Dedication trees will be protected and maintained.

## Ajax WSP Operations

- Ajax WSP operational activities including supply deliveries and regular maintenance are anticipated to remain at current levels.

# Waterfront Trail Impacts



Figure 21: Aerial map showing areas for trail relocation during and after construction

## Waterfront Trail

- For safety during construction and accommodate new building footprint, the Waterfront Trail must be relocated.
- To preserve active transit networks and recreation, new north trail (green line) relocation to be built and used during construction.
- Existing south trail and north-to-south trails will be closed during construction.
- A portion of the south trail (orange crosshatch) to be realigned and opened post construction (blue line).
- New north trail will remain open post construction as part of area enhancement, and contributing to local character

**Note:** proposed construction disturbance area and trail alignments are preliminary and subject to change pending further investigations, design and approvals. Mitigation measures for potential impacts to be confirmed after shoreline hazard study.

# Conceptual Aerial Rendering #1



**Figure 22:** Artistic Conceptual Rendering of Ajax WSP Expansion Looking Southwest

Preliminary rendering. Subject to change.

New trees will be planted as part of restoration efforts

# Conceptual Aerial Rendering #2



**Figure 23:** Artistic Conceptual Rendering of Ajax WSP Expansion Looking West

Preliminary rendering. Subject to change.  
New trees will be planted as part of restoration efforts

# Conceptual Street View Rendering #1



Figure 24: Artistic Conceptual Street View Rendering #1

Preliminary rendering. Subject to change.  
New trees will be planted as part of  
restoration efforts



Figure 25: Keymap of View #1

# Conceptual Street View Rendering #2



Figure 26: Artistic Conceptual Street View Rendering #2

Preliminary rendering. Subject to change.  
New trees will be planted as part of restoration efforts



Figure 27: Keymap of View #2

# Conceptual Street View Rendering #3



Figure 28: Artistic Conceptual Street View Rendering #3

Preliminary rendering. Subject to change.  
New trees will be planted as part of restoration efforts



Figure 29: Keymap of View #3

# Conceptual Street View Rendering #4



**Figure 30:** Artistic Conceptual Street View Rendering #4

Preliminary rendering. Subject to change.  
New trees will be planted as part of restoration efforts



**Figure 31:** Keymap of View #4

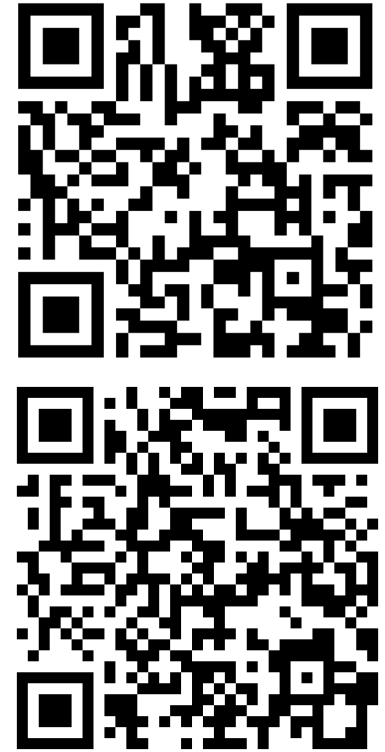
# Next Steps and Schedule

Following this Public Information Centre (PIC), the project team will receive and consider comments from interested parties. This will help with finalizing the solution for the Ajax WSP Expansion and will be documented through the Class EA Addendum Report. Complete a comment sheet this evening or submit comments to a member of the project team.

More information including copies of project notices and PIC materials can be found on the project website: [www.durham.ca/AjaxWSPProject](http://www.durham.ca/AjaxWSPProject)

Please provide your comments by: **April 24, 2026**

Comment Sheet:



Project Website:  
[durham.ca/AjaxWSPProject](http://durham.ca/AjaxWSPProject)

## Estimated Timelines



★ We are here!

## Project Team Contact Information

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**Thank You!**



**+ Jacobs + RVA**