

Public Utilities Commission for the Municipality of Chatham-Kent Water and Wastewater Master Plan Update Study

Public Information Centre No. 2 (PIC #2)



Session #1 (Chatham): September 23, 2026
Session #2 (Wallaceburg): September 24, 2026
Time: 6:00 PM EST
PIC #2 Comment Period Ends: October 8, 2026

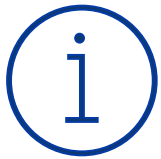


Welcome!

Please review the materials and submit your questions and comments to one of the project team members listed at the end of this slideshow

INTRODUCTION

The Goals of this Public Information Centre are to:



Introduce the project, its main objectives and the reasons behind the update



Identify Residential and Employment Growth



Identify evaluation criteria



Project water demand and wastewater flows



Identify high-level alternative servicing strategies



Provide next steps, answer any questions you may have and provide an opportunity to get involved in the project

INTRODUCTION

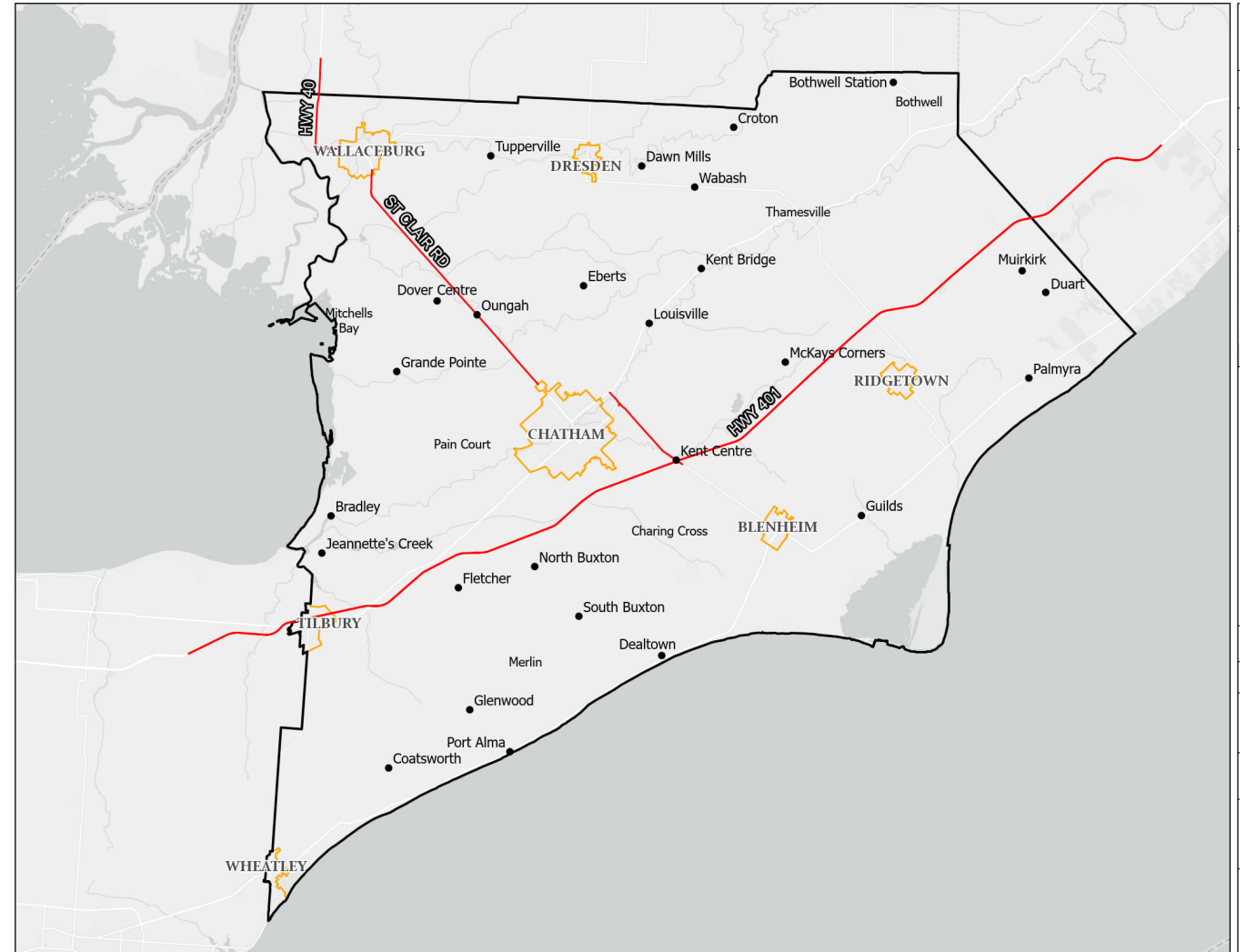
The Public Utilities Commission for the Municipality of Chatham-Kent (CK PUC) owns, manages, and operates various facilities that provide water and wastewater servicing to existing and future residential and commercial users within the Municipality of Chatham-Kent (the Municipality). The Municipality's existing infrastructure includes:

- › 6 Water Distribution Service Areas
 - The municipal water systems service 7 primary urban centres, 6 secondary centres, and several hamlets.
- › 9 Wastewater Collection Service Areas
 - The Municipal wastewater systems service 7 primary urban centres and 5 secondary centres.

The Master Plan (MP) will develop water and wastewater strategies and identify infrastructure upgrade projects for a 30-year growth horizon.

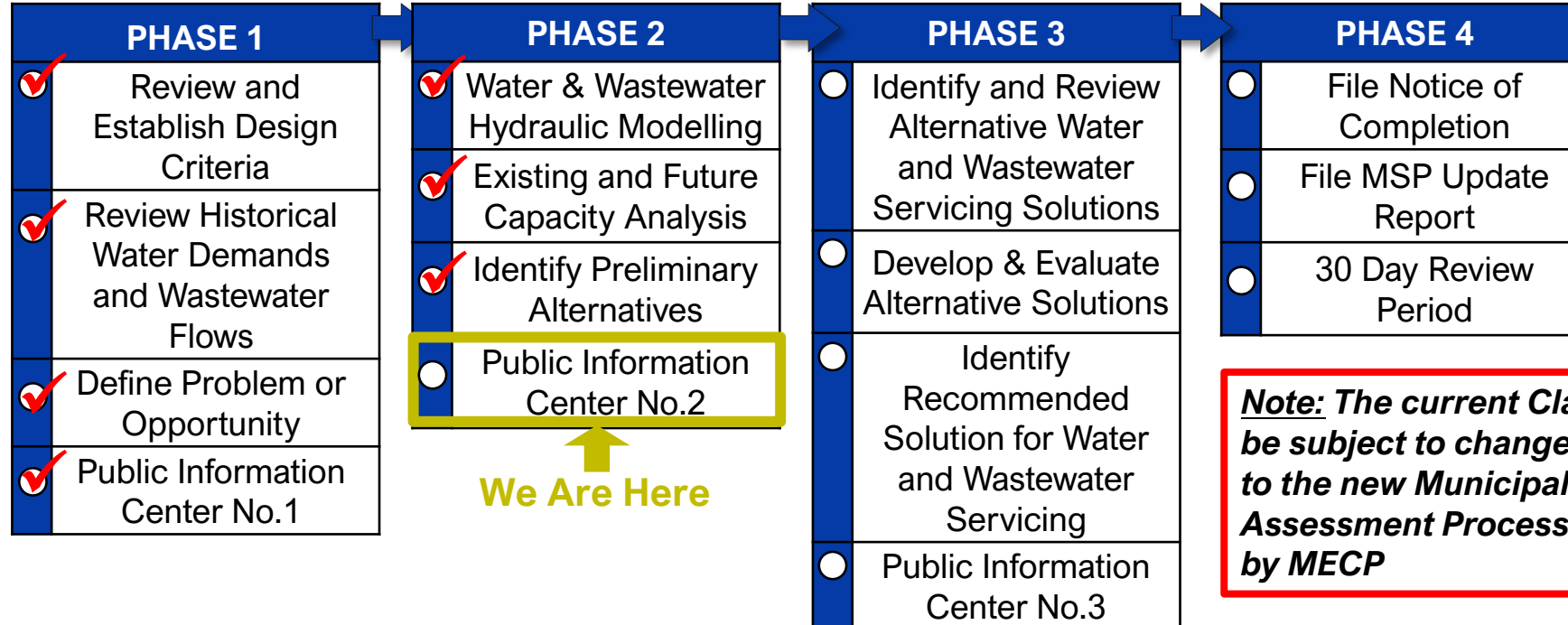
STUDY AREA

- › The Municipality of Chatham-Kent is a single tier municipality incorporated in 1998, located on the west shore of Lake Erie.
- › Primary urban centres include:
 - Blenheim
 - Chatham
 - Dresden
 - Ridgetown
 - Tilbury
 - Wallaceburg
 - Wheatley
- › Secondary urban centres include:
 - Bothwell
 - Charing Cross
 - Merlin
 - Mitchell's Bay
 - Pain Court
 - Thamesville



MASTER PLANNING PROCESS

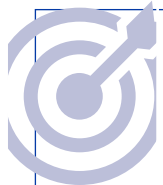
- › The MP process is followed by municipalities in Ontario. It applies environmental assessment planning principles to examine infrastructure needs. This process allows for the public, members of the public, agencies, and Indigenous community consultation and input. This MP follows Approach #1 of the Municipal Class Environmental Assessment (MCEA) guidelines, which involves analysis on a system scale to identify needs and establish broad servicing solutions. Additional investigations are required to fulfil the MCEA requirements for Schedule B and C projects identified within the MP. The goal of this MP Update is to identify sustainable water and wastewater servicing solutions to accommodate growth in the Municipality for a 30-year growth span.



Note: The current Class EA process may be subject to change in early 2027 due to the new Municipal Project Assessment Process (MPAP) developed by MECP

BACKGROUND INFORMATION

- › The current Water and Wastewater MP was completed in February 2024
- › A third-party review of the current MP was completed by MVU Consulting Inc. in June 2025, and the following MP limitations were observed:



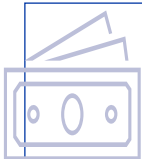
Alignment with Growth Priorities: The current MP did not consider growth in South-West Chatham as per the on-going South-West Chatham Servicing Study



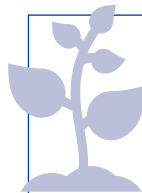
Alignment Between CK and PUC on Growth Strategy to be improved



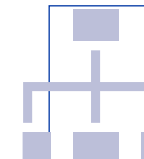
Exploration of Alternative Options: In several areas (e.g. Wallaceburg, Blenheim, Ridgeway water upgrades), proposed solutions lacked alternative comparatives for evaluation



Growth Requirement vs. State of Good Repair: Master Plans primary objective is to address the forecasted growth while the current MP includes expensive replacement projects not related to growth



Greenhouse Strategy: The MP does not include a clear strategy in relation to Greenhouse growth and associated servicing requirements



Proposed projects were grouped in 3 categories: projects deemed ready to proceed, projects to proceed after further investigation and projects that should be halted and alternative solutions pursued.

- › The ongoing MP Update will prioritize the evaluation of alternative water and wastewater solutions for projects requiring further investigation and/or reconsideration as identified by MVU Consulting.
- › The on-going MP will also revisit infrastructure cost rates that have increased since the last MP due to the current economic situation.

Key Priorities



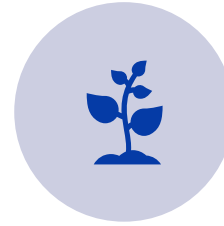
ALIGNMENT WITH GROWTH PRIORITIES

Improve alignment between development priorities, land use planning and infrastructure delivery through increased collaboration between the Municipality and the CK PUC



SOUTHWEST CHATHAM AREA

Evaluating alternative servicing solutions to optimize service delivery and long-term infrastructure needs for the Southwest Chatham area which has been identified as a strategic priority for residential and employment growth.



GREENHOUSE AND LARGE WATER USERS WATER DEMANDS AND SERVICING

Gain a deeper understanding of water consumption by greenhouses and other large commercial users to support future agricultural and commercial needs.



WALLACEBURG WATER SUPPLY

Re-evaluating different alternatives for water supply to Wallaceburg. Identify long-term servicing solutions for the community, including future support for greenhouse and agricultural needs.



AFFORDABLE CAPITAL PLAN

Creating an affordable and realistic capital plan which supports growth within the CK PUC without underestimating future needs and demands.

PROJECTED POPULATION INCREASE TO 2061

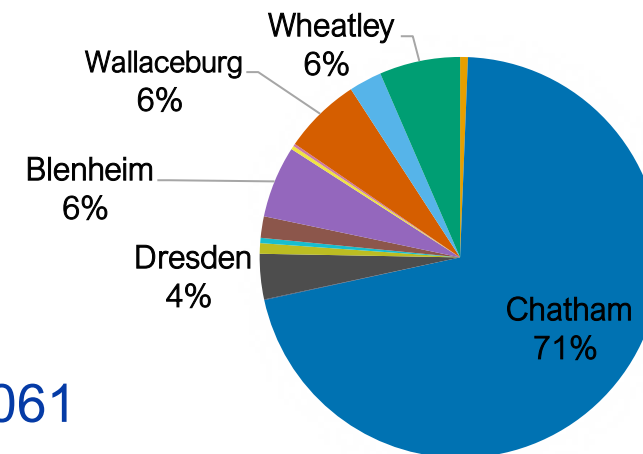
The residential population and number of jobs in CK are forecasted to increase to 133,300 and 51,200 by 2061

Consideration for additional growth in SW Chatham has been accounted for in the analysis of the water and wastewater systems

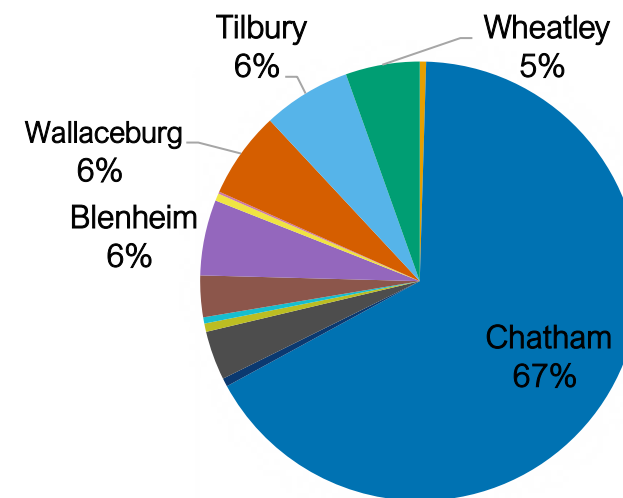
Projected Population growth relative to the existing population

Settlement Area	Residential Population Growth	Residential Growth (% of Municipal Growth)	Employment (Jobs) Growth	Employment Growth (% of Municipal Growth)
Blenheim	1,080	6%	303	6%
Bothwell	117	1%	25	0%
Charing Cross	38	0%	8	0%
Chatham	13,229	71%	3,621	67%
Dresden	682	4%	196	4%
Merlin	54	0%	29	1%
Mitchell's Bay	158	1%	33	1%
Pain Court	79	0%	25	0%
Ridgetown	323	2%	166	3%
Thamesville	- 9	0%	34	1%
Tilbury	494	3%	353	6%
Wallaceburg	1,166	6%	347	6%
Wheatley	1,215	7%	297	5%
TOTAL	18,626	100%	5,437	100%

Residential Growth in 2061



Bothwell Chatham Thamesville Dresden Mitchell's Bay Pain Court Ridgetown
Blenheim Merlin Charing Cross Wallaceburg Tilbury Wheatley

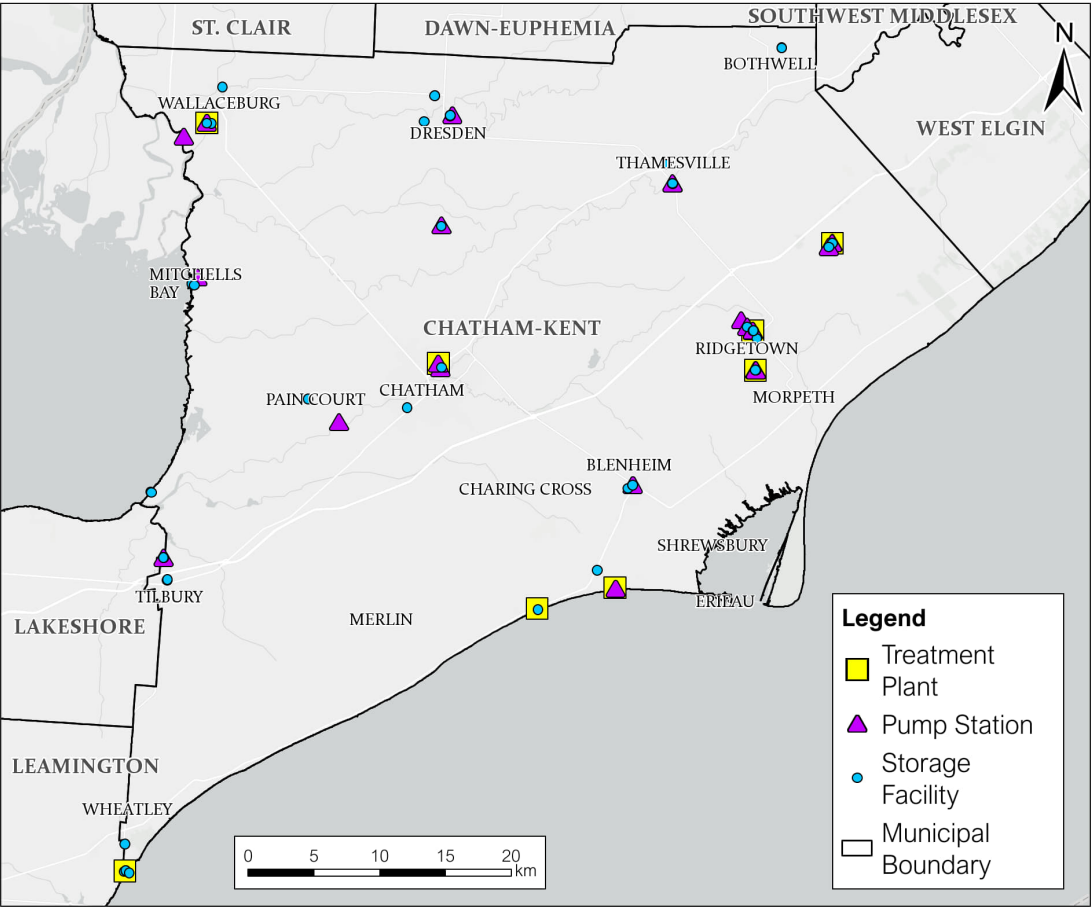


Employment Growth in 2061

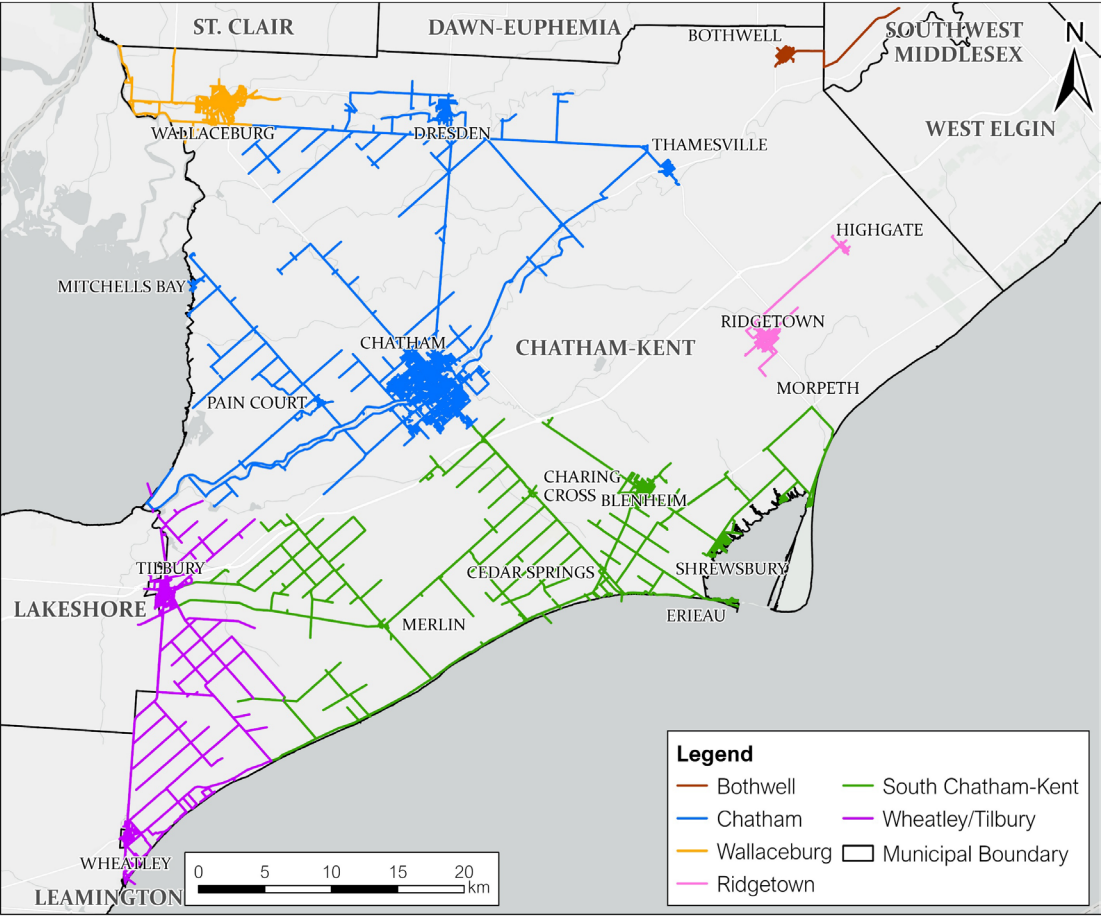
> Forecasted population growth data provided by Watson & Associates Economists Ltd. (June 2026)

WATER SERVICE AREAS

Water Facilities Map

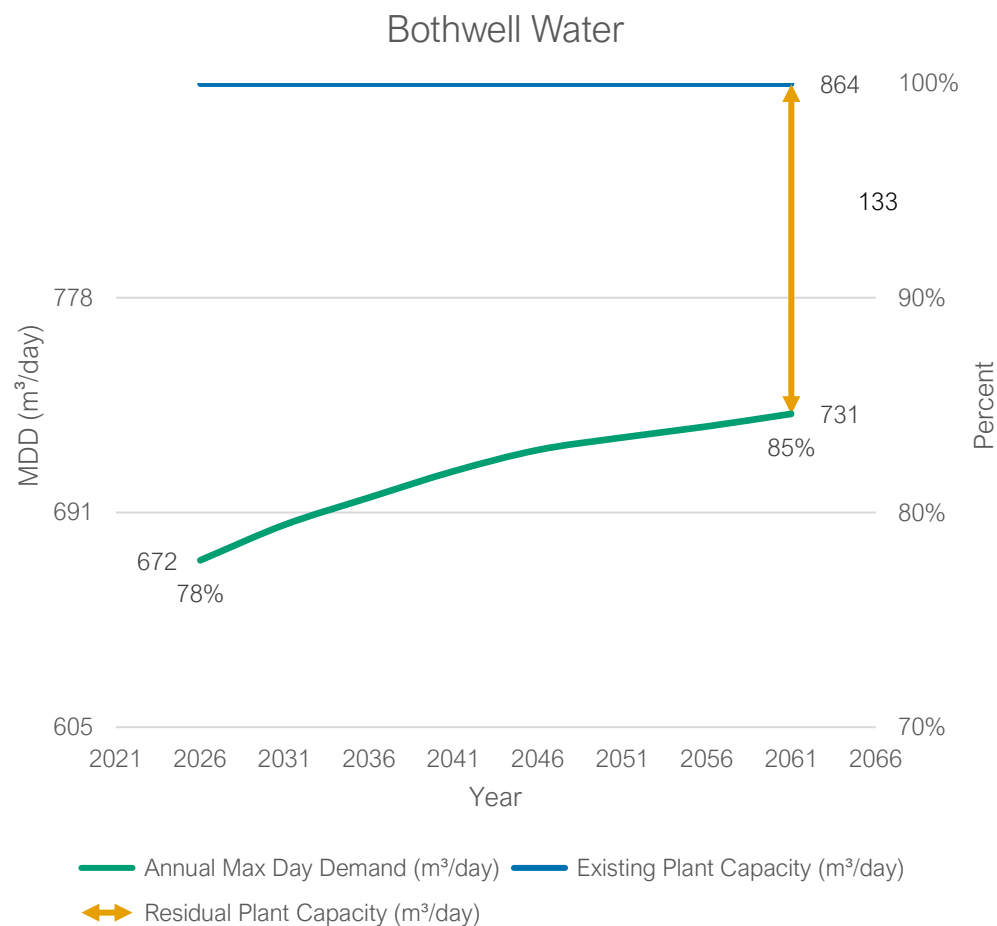
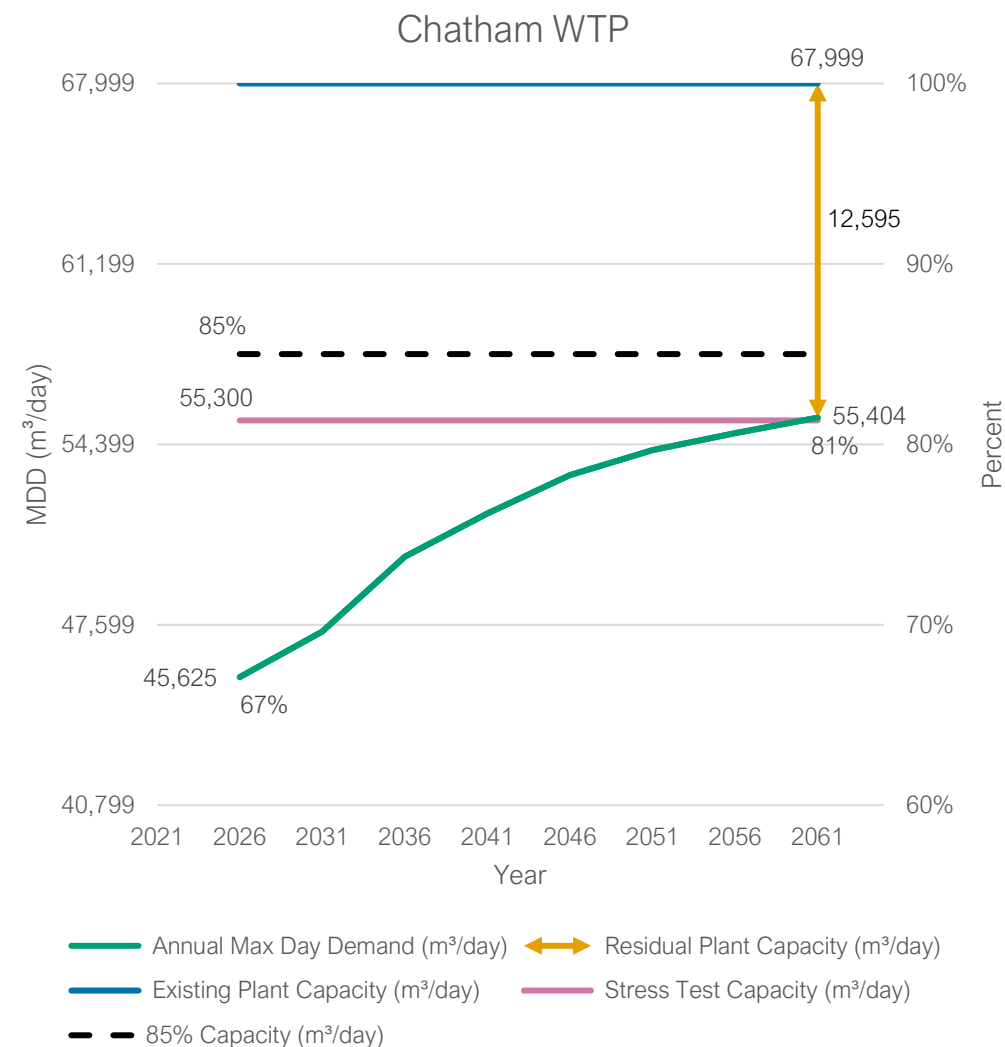


Water Systems Map



WATER SYSTEM DEMAND PROJECTIONS

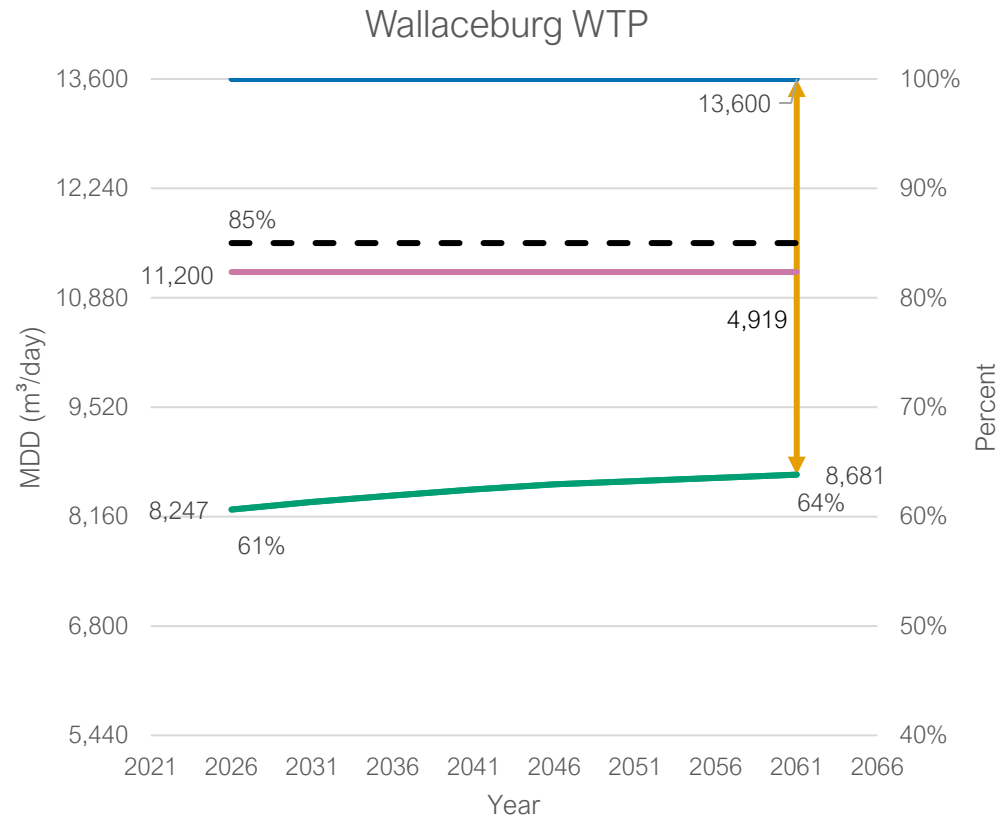
WTP: Water Treatment Plant
MDD: Maximum Day Demand



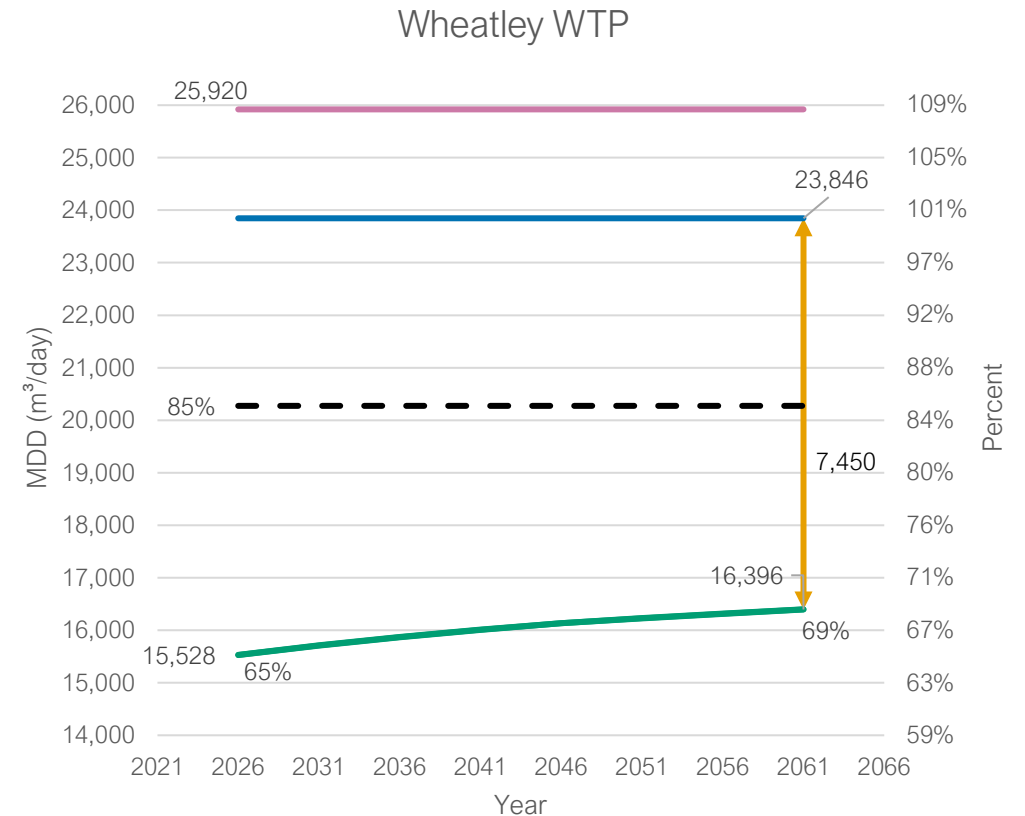
Note: Bothwell is currently supplied by Southwest Middlesex WDS, through the Tri-County Water Distribution System Agreement.

Note: Chatham existing flows are preliminary and still under investigation.

WATER SYSTEM DEMAND PROJECTIONS



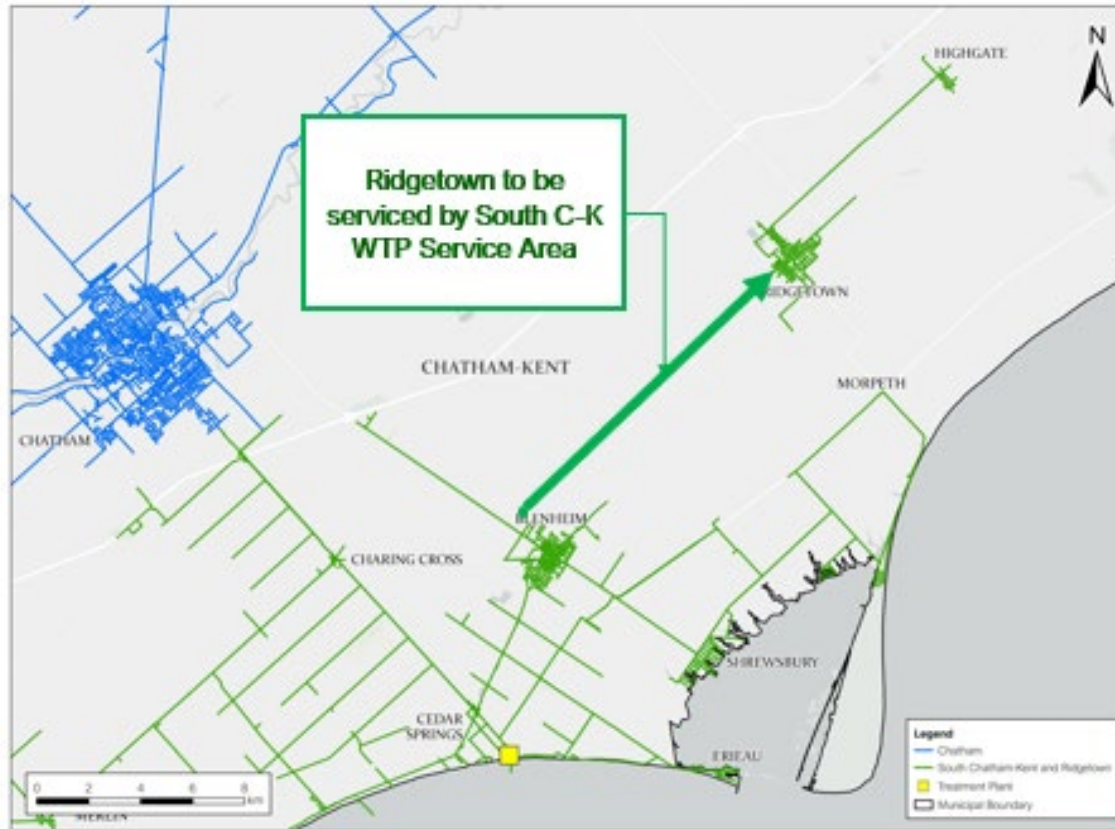
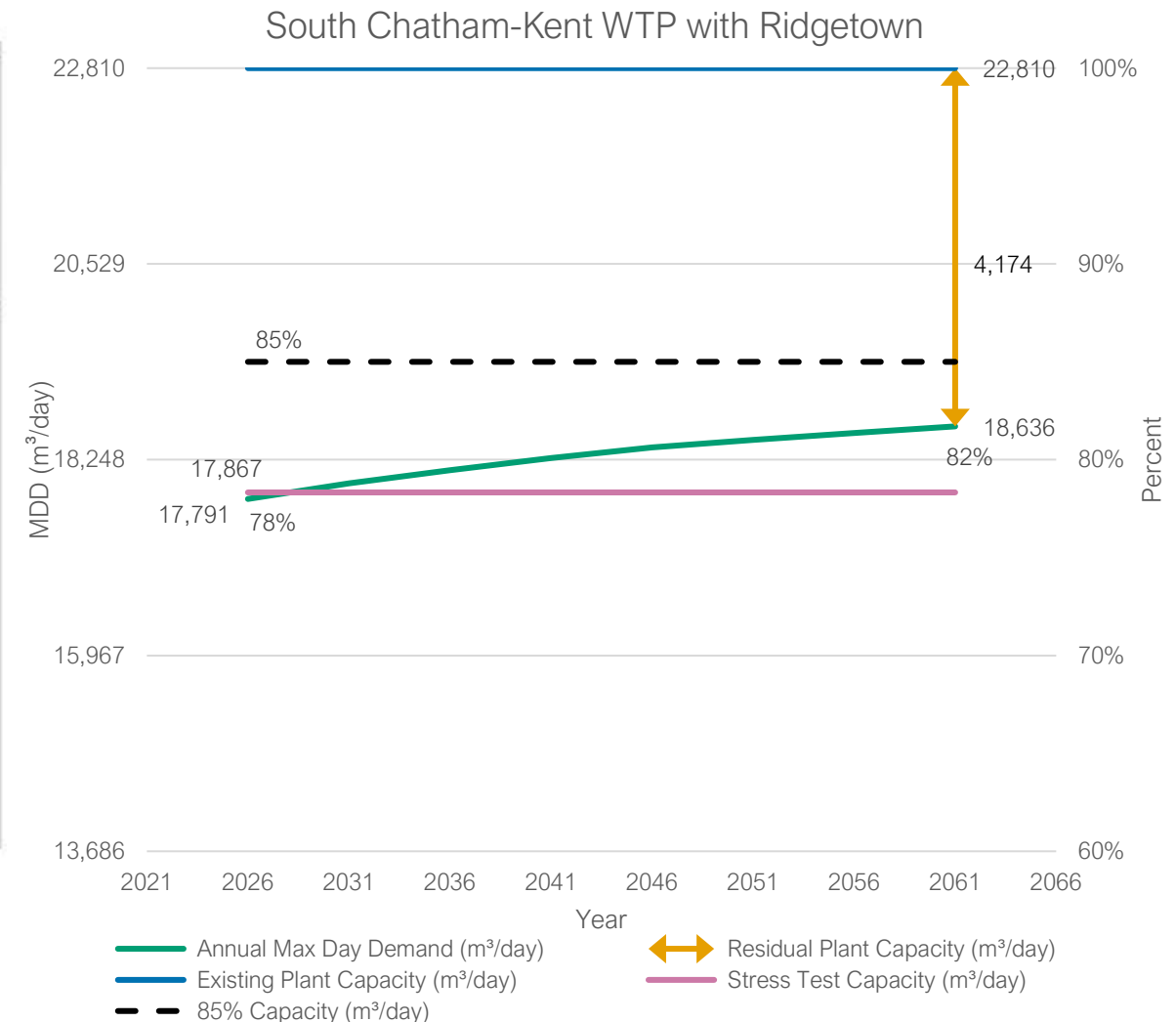
— Annual Max Day Demand (m³/day)
 — Existing Plant Capacity (m³/day)
 - - - 85% Capacity (m³/day)
 — Stress Test Capacity (m³/day)
 ↔ Residual Plant Capacity (m³/day)



— Annual Max Day Demand (m³/day)
 — Existing Plant Capacity (m³/day)
 - - - 85% Capacity (m³/day)
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WATER SYSTEM DEMAND PROJECTIONS

- As per the Southeast Chatham-Kent WDS Municipal Class EA, Ridgetown is proposed to be serviced from the South C-K Water System through a new Ridgetown transmission main from Blenheim.

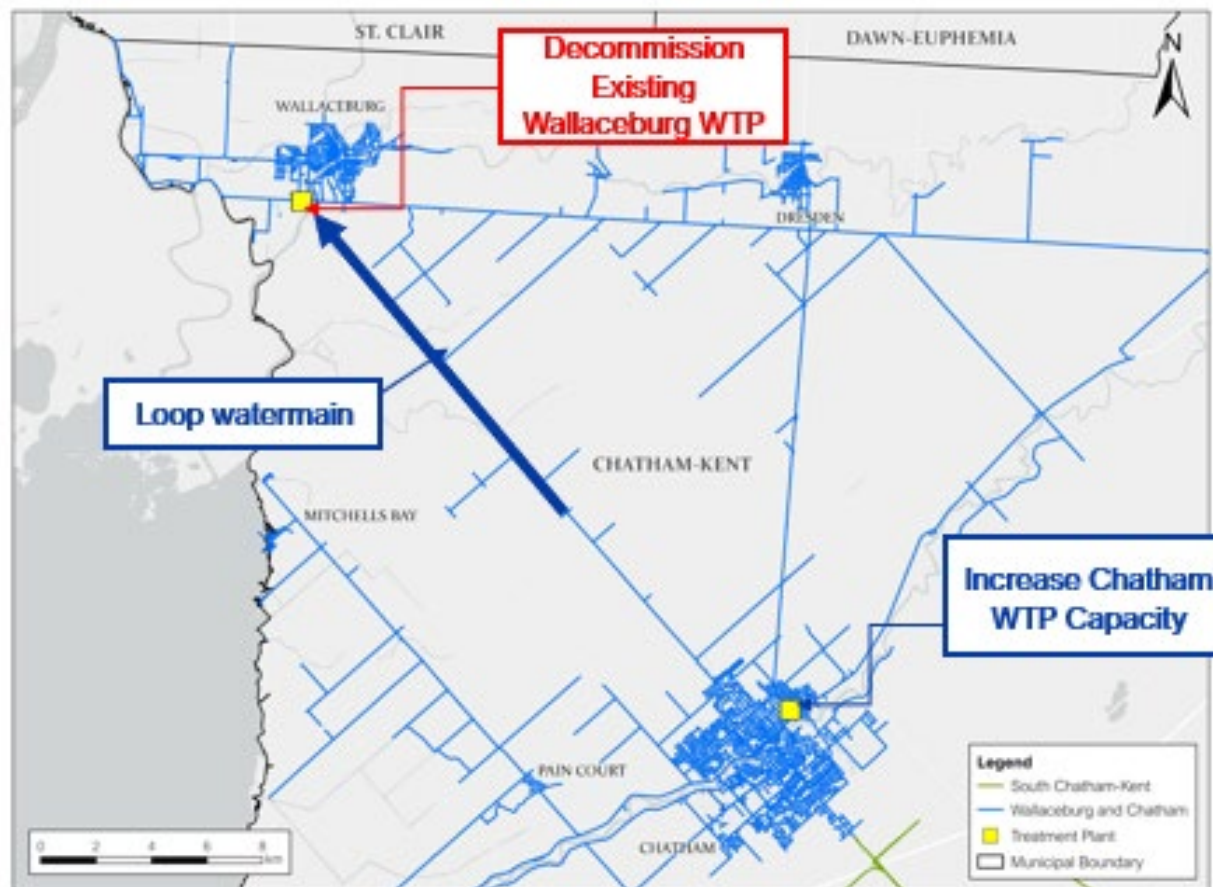
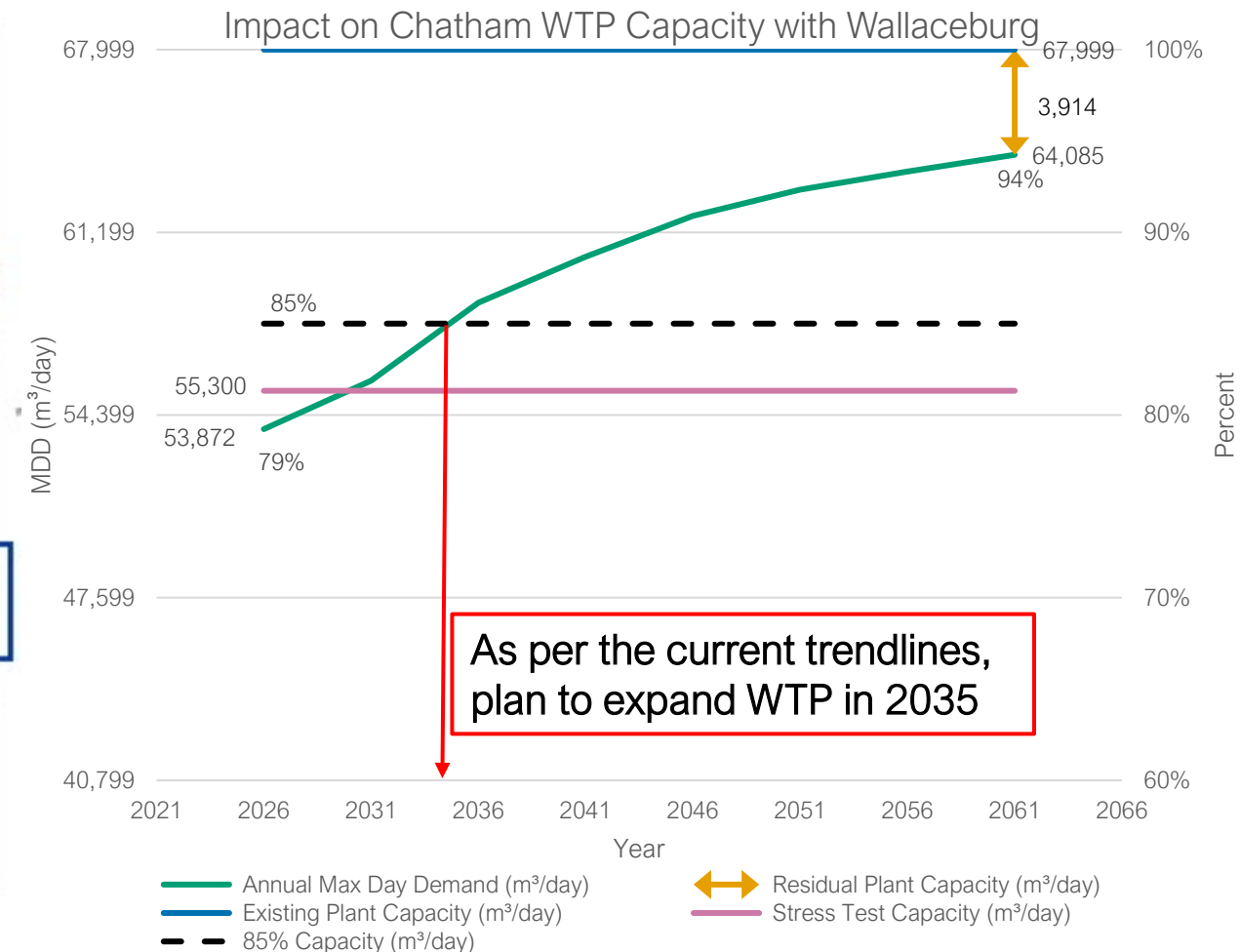


PRELIMINARY FINDINGS - WATER

- › All Water Treatment Plants are projected to operate within their design rated capacity by 2061. However, the following constraints have been identified:
1. South Chatham-Kent WTP Maximum production achieved by the plant during field testing is below its rated capacity. With Ridgetown planned to be connected to the South Chatham-Kent WTP system by 2031, short term upgrades to WTP are required to operate at its design capacity.
 2. Chatham WTP Maximum production achieved by the plant during field testing is below its rated capacity. On-going investigations and upgrades projects to the WTP components are being undertaken to address current bottlenecks and achieve its rated capacity
 3. Wallaceburg WTP is reaching the end of its service life. Previous studies and condition assessments recommended the Wallaceburg WTP be decommissioned in the short term. As such three (3) alternative servicing solutions for Wallaceburg have been reviewed.
 - Option 1 – Expansion of the Chatham WTP to service the Wallaceburg.
 - Option 2 – New WTP in Wallaceburg to service Wallaceburg and Dresden (Wallaceburg WTP Class EA recommended solution)
 - Option 3 – New WTP in Wallaceburg to service Wallaceburg only

CHATHAM & WALLACEBURG WATER SERVICING SOLUTIONS

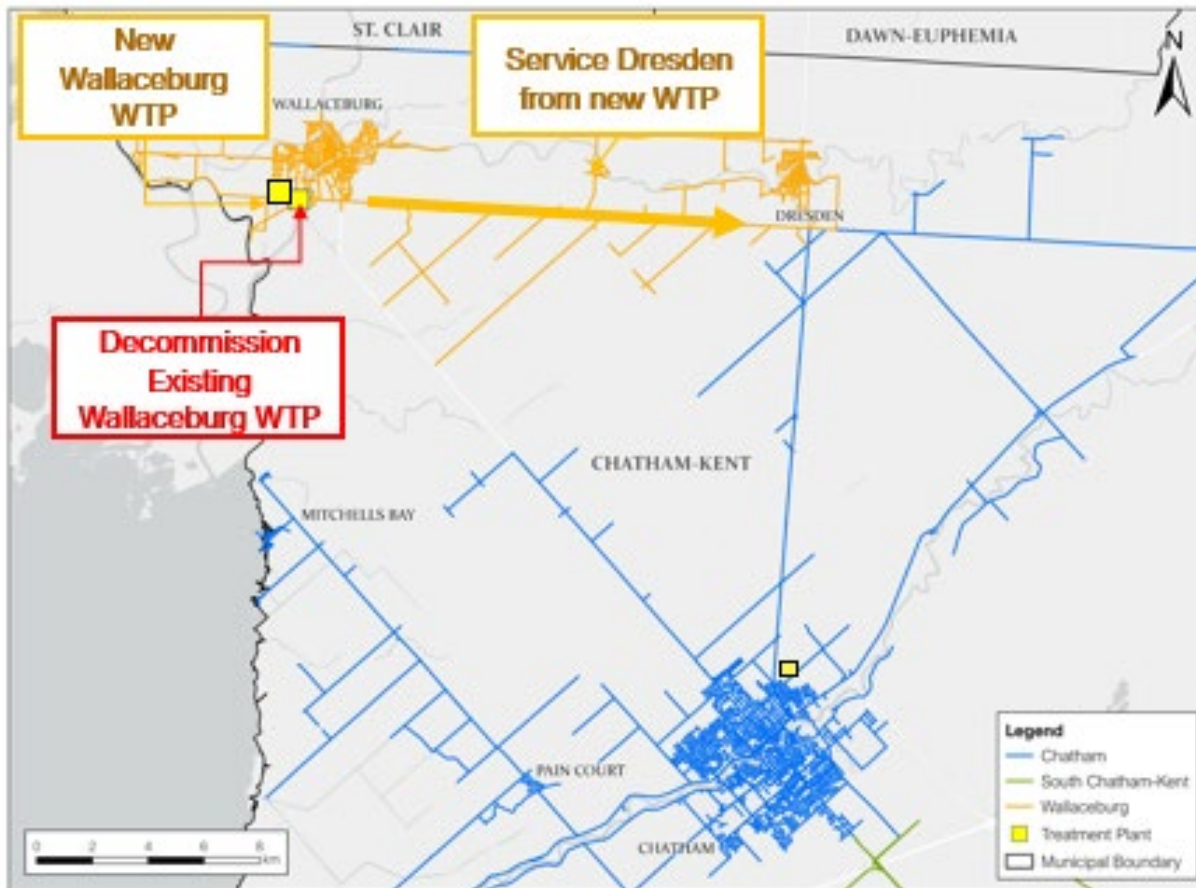
- › **Option 1:** Service the Wallaceburg water service area through the Chatham WTP and upgrade Chatham WTP (**short term upgrades to recover the rated capacity and longer-term expansion to be planned in 2035**)



CHATHAM & WALLACEBURG WATER SERVICING SOLUTIONS

- › **Option 2:** Service the Wallaceburg and Dresden areas through a new WTP in Wallaceburg.

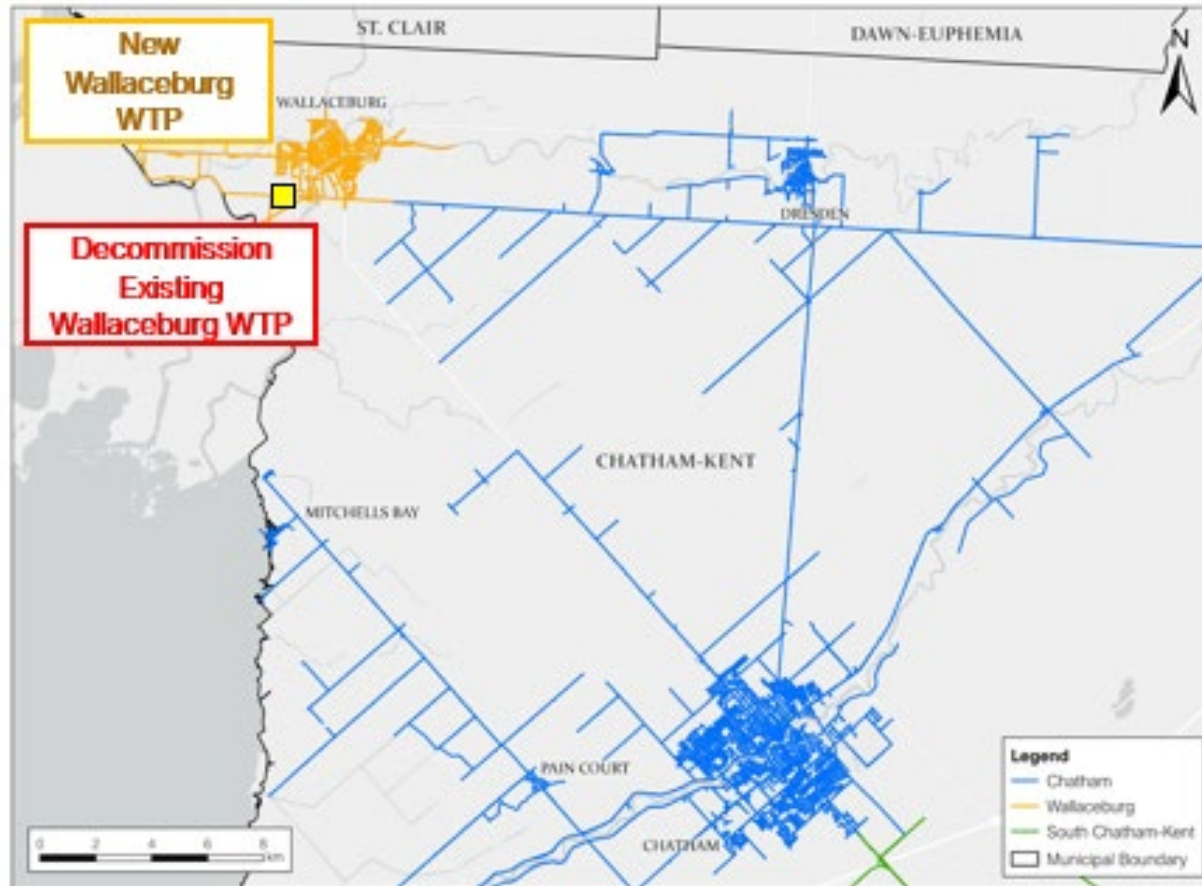
(Wallaceburg WTP Class EA recommended solution)



- › The MDD for Wallaceburg and Dresden combined will be 11,024 m³/day in 2061. **Plan to build a new 12 MLD Capacity WTP in Wallaceburg.**
- › Wallaceburg WTP also requires new Intake, low-lift pumping station and raw transmission main
- › The MDD for Chatham WTP without Dresden will be 55,404 m³/day in 2061. This is within Chatham WTP existing rated capacity.
- › On-going investigations at Chatham WTP to identify current bottlenecks and requiring upgrades in the short-term
- › On the long-term expansion needs for Chatham WTP should be reassessed if current growth trendlines are modified

CHATHAM & WALLACEBURG WATER SERVICING SOLUTIONS

- › **Option 3:** Service the existing Wallaceburg System with a new WTP for Wallaceburg only. Dresden will remain in the Chatham WTP System.



- › The MDD for Wallaceburg will be 8,681 m³/day in 2061. **Plan to build a new 10 MLD Capacity WTP in Wallaceburg.**
- › Wallaceburg WTP requires new Intake, low-lift pumping station and raw transmission main
- › The MDD for Chatham WTP will be 53,060 m³/day in 2061. This is within Chatham WTP existing rated capacity.
- › On-going investigations at Chatham WTP to identify current bottlenecks and requiring upgrades in the short-term
- › On the long-term expansion needs for Chatham WTP should be reassessed if current growth trendlines are modified

WATER STORAGE NEEDS

› Existing water storage facilities with the projected storage volume requirements to the year 2061:

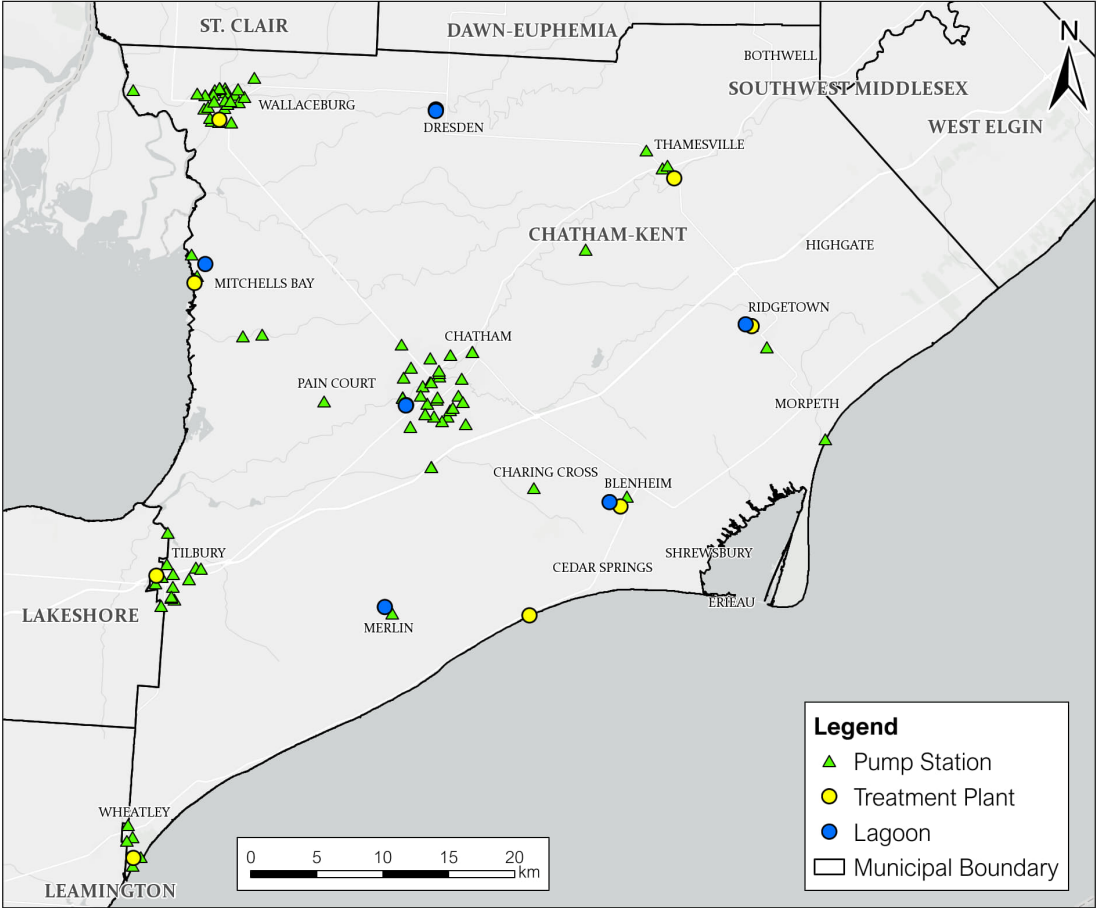
Settlement Area	Total Existing Storage Volume (m ³)	Planned Expansion Volume (m ³)	Volume Required by 2061 (m ³)	Surplus (+) or Shortfall (-) (m ³)	Notes
Blenheim / Charing Cross / Merlin	8,000	-	5,118	2,882	
Bothwell	1,000	-	939	61	
Chatham	47,883	20,000	25,238	42,645	
Dresden	5,430	-	1,722	3,708	
Mitchell's Bay	1,114	-	465	649	
Pain Court	1,627	-	506	1,121	
Ridgetown	1,266	2,800	2,281	519	Existing storage facilities in Ridgetown will be decommissioned
Thamesville	1,250	-	546	704	
Tilbury	8,461	-	3,615	4,846	
Wallaceburg	10,196	-	5,683	4,513	
Wheatley	5,954	-	3,371	2,583	

Notes:

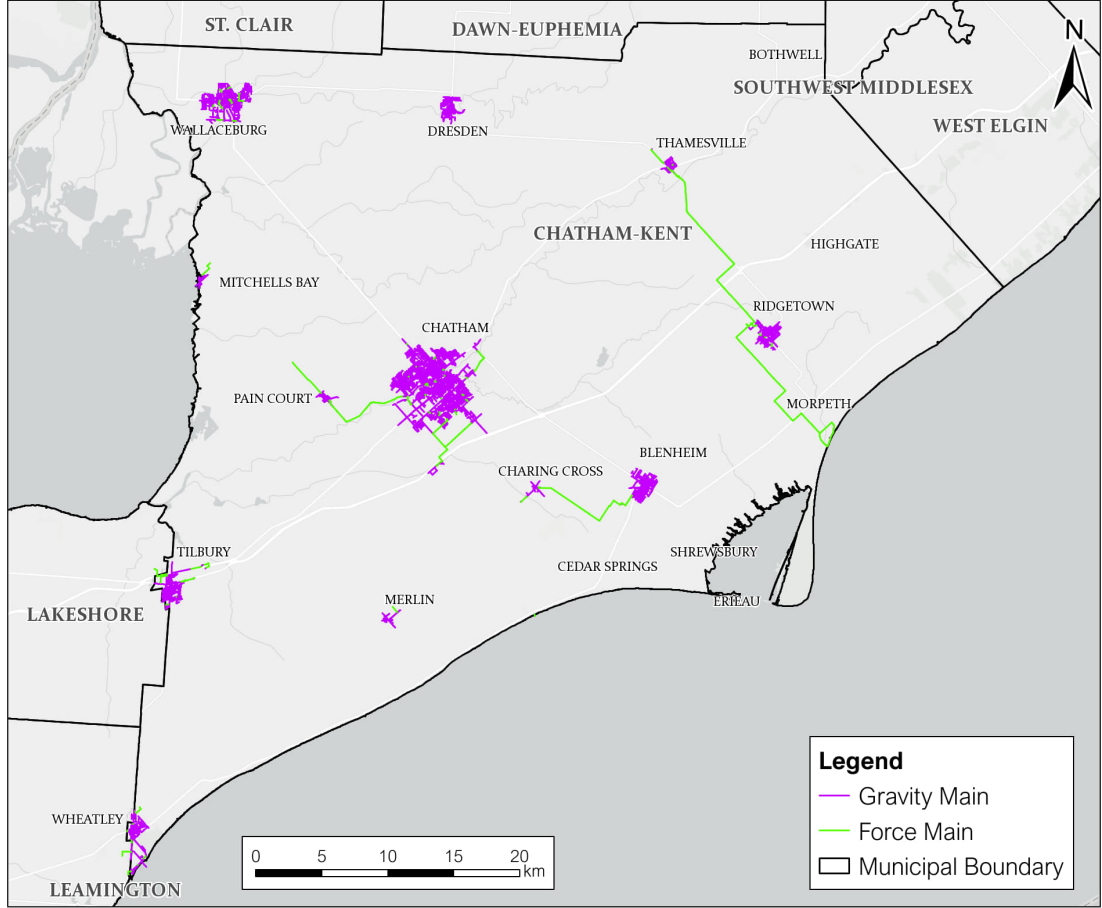
1. The Municipality does not provide fire flow protection in rural service areas.
2. Combination of all treated water storage facilities in operation
3. Planned Expansion Volume projects under design or construction

WASTEWATER SERVICE AREAS

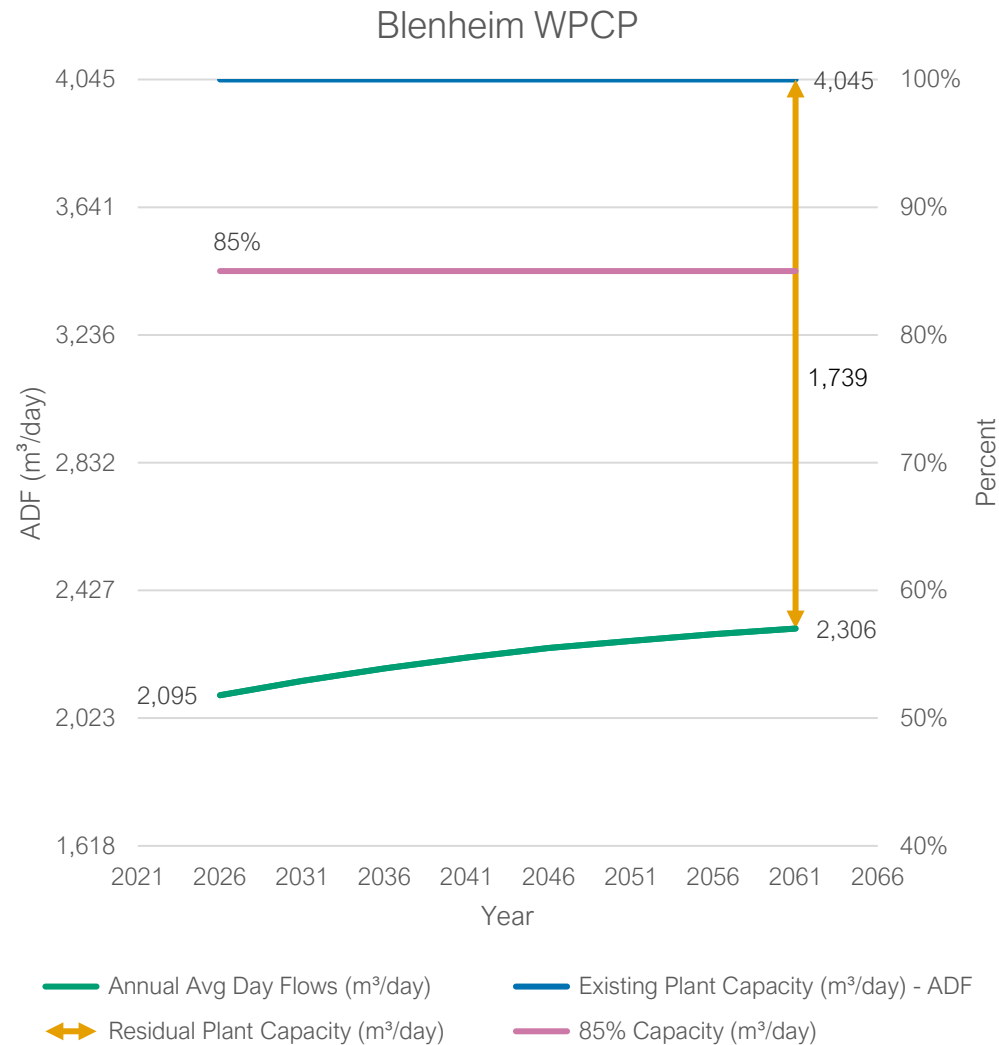
Wastewater Facilities Map



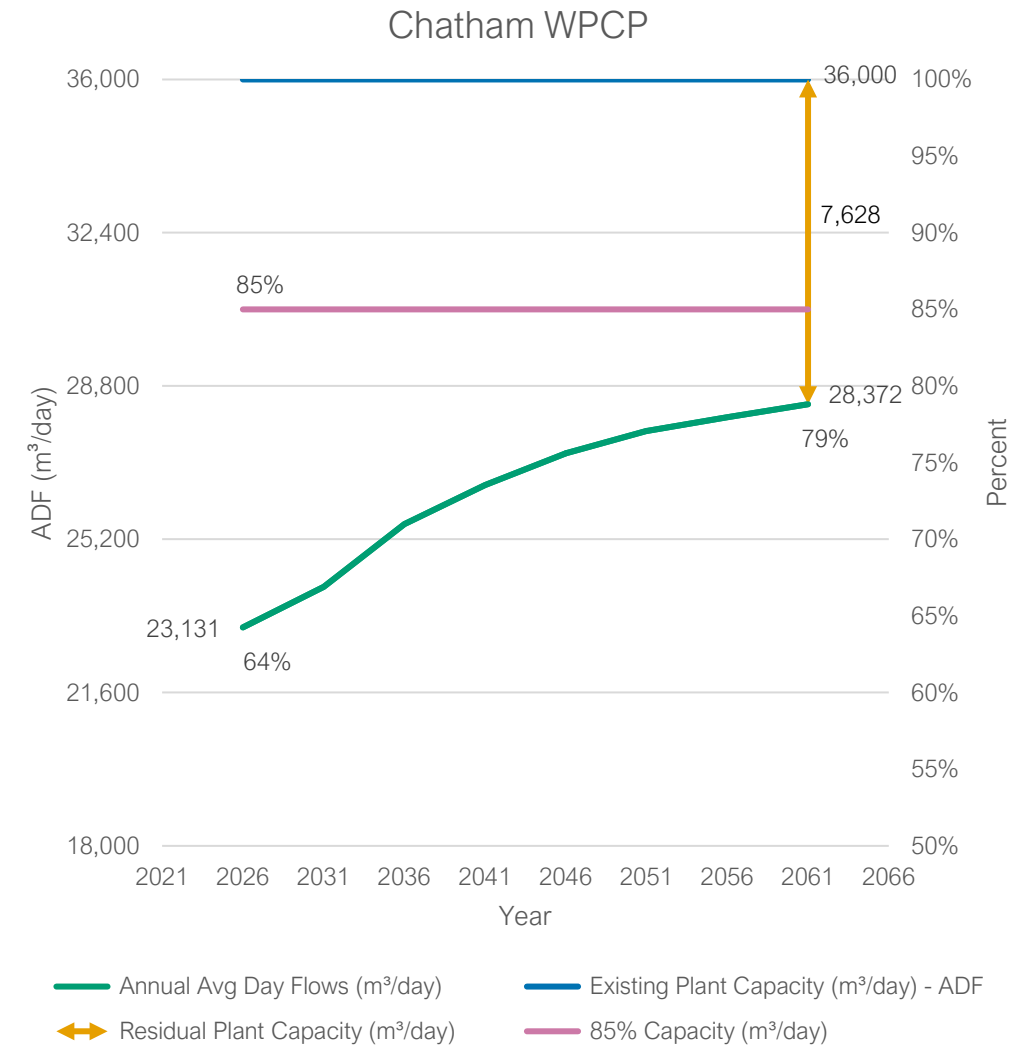
Wastewater Systems Map



WASTEWATER SYSTEM FLOW PROJECTIONS

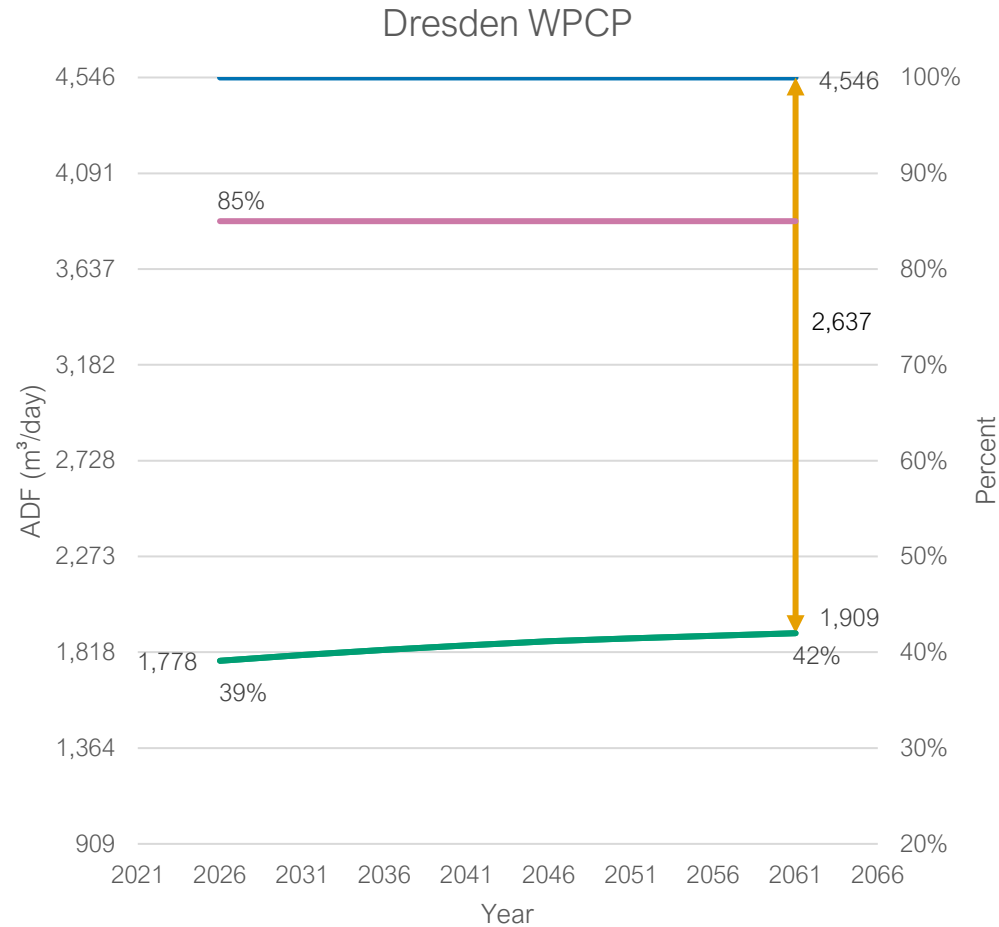
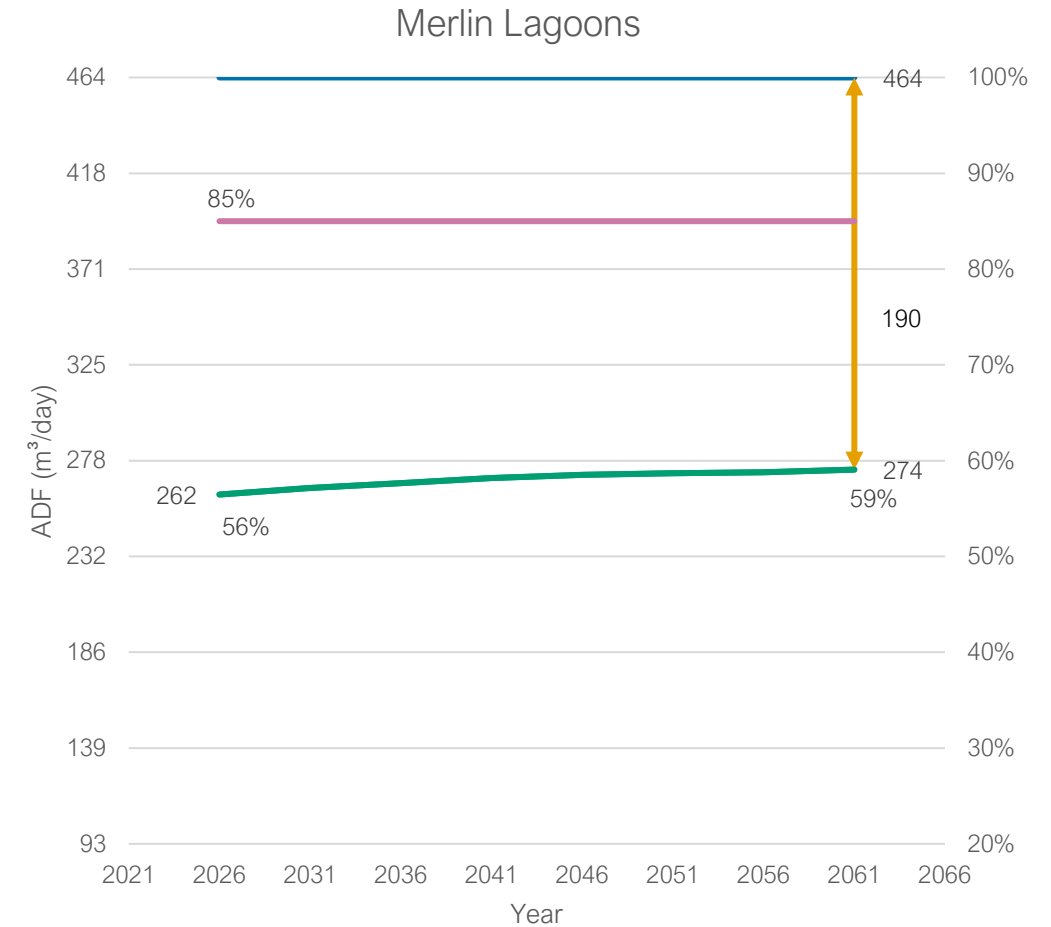


WPCP: Water Pollution Control Plant
ADF: Average Daily Flow



Note: Chatham existing flows are preliminary and still under investigation

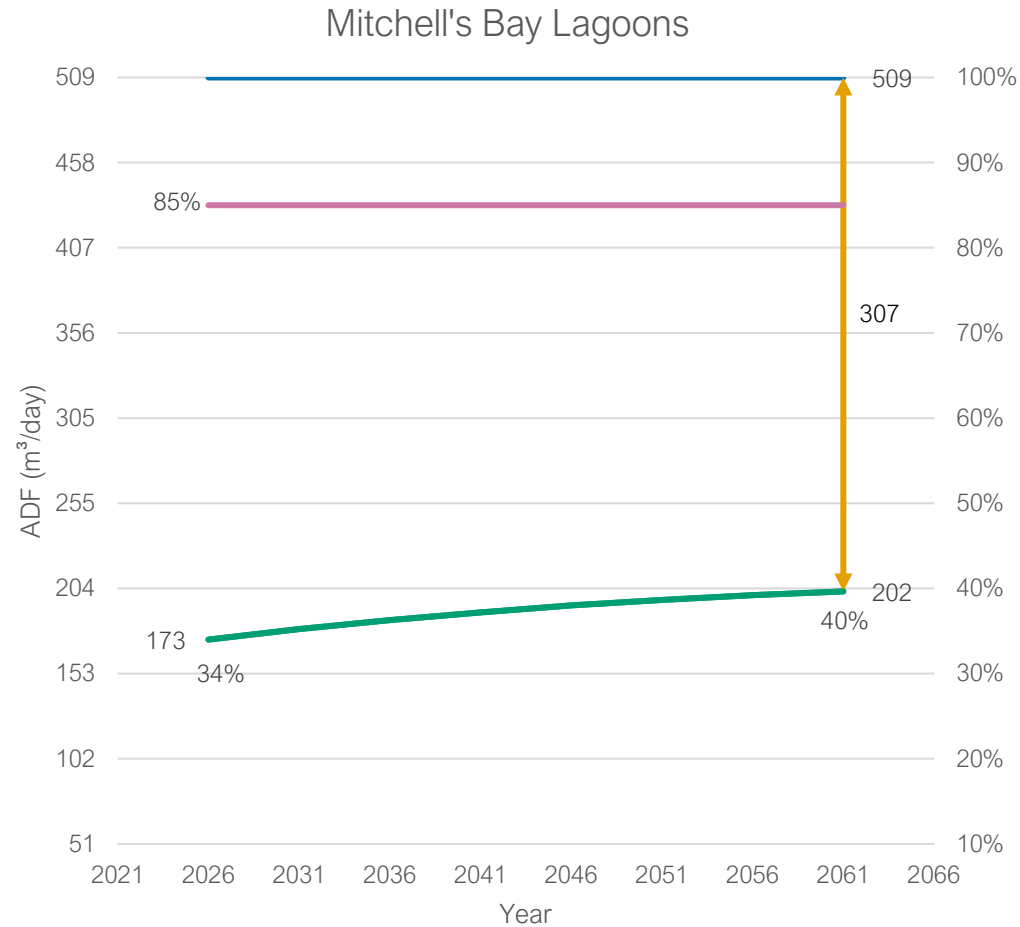
WASTEWATER SYSTEM FLOW PROJECTIONS



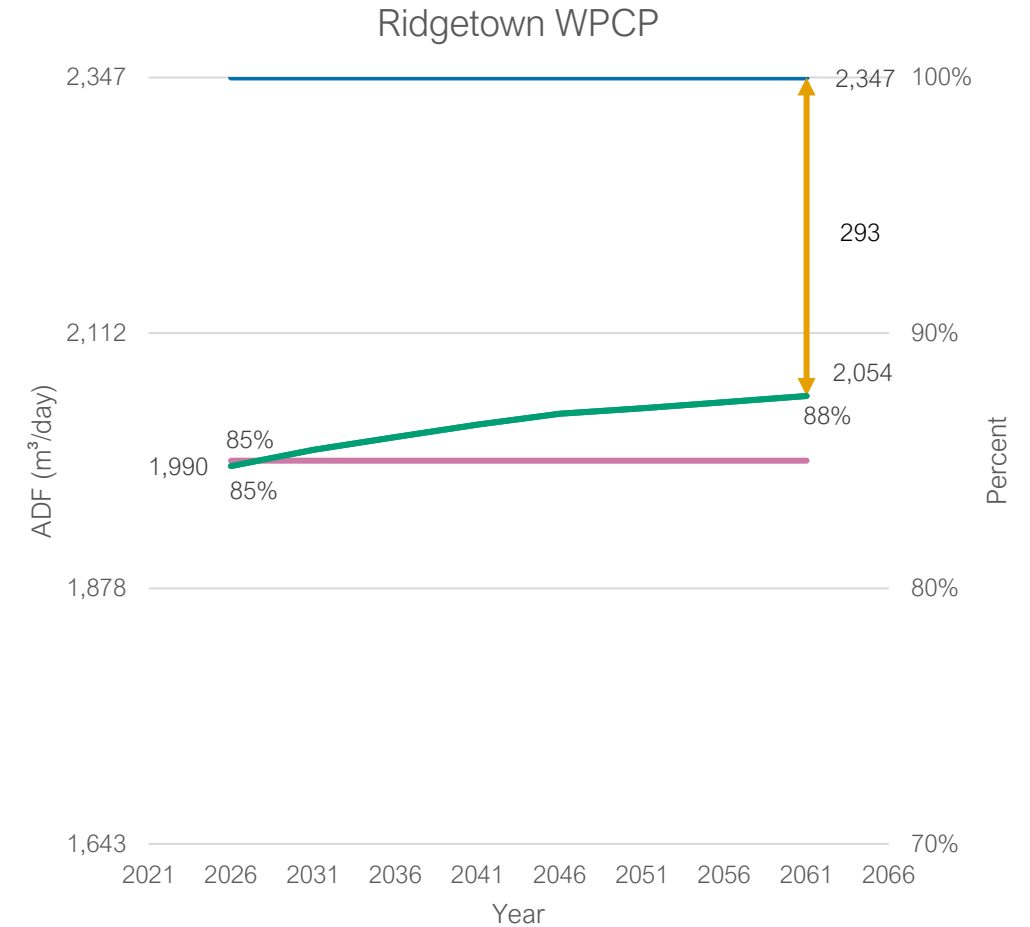
— Annual Avg Day Flows (m³/day) — Existing Plant Capacity (m³/day) - ADF
↔ Residual Plant Capacity (m³/day) — 85% Capacity (m³/day)

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↔ Residual Plant Capacity (m³/day) — 85% Capacity (m³/day)

WASTEWATER SYSTEM FLOW PROJECTIONS

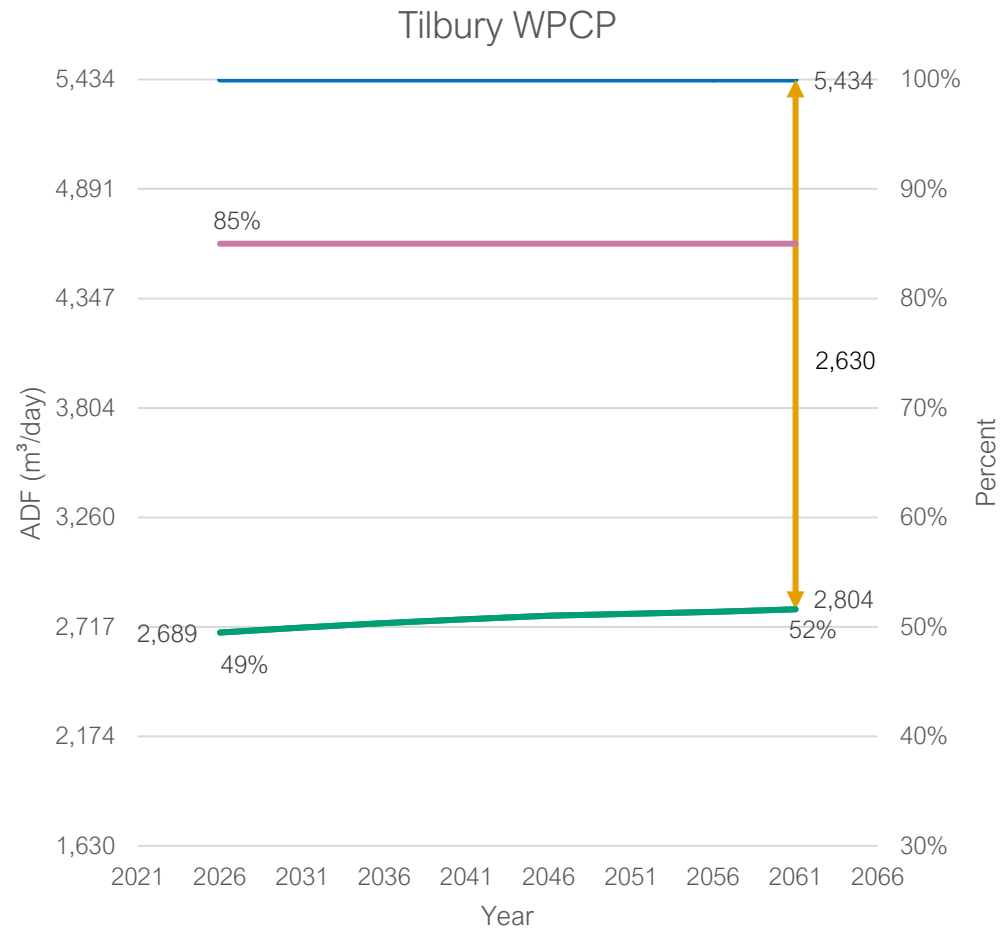


— Annual Avg Day Flows (m³/day) — Existing Plant Capacity (m³/day) - ADF
↔ Residual Plant Capacity (m³/day) — 85% Capacity (m³/day)

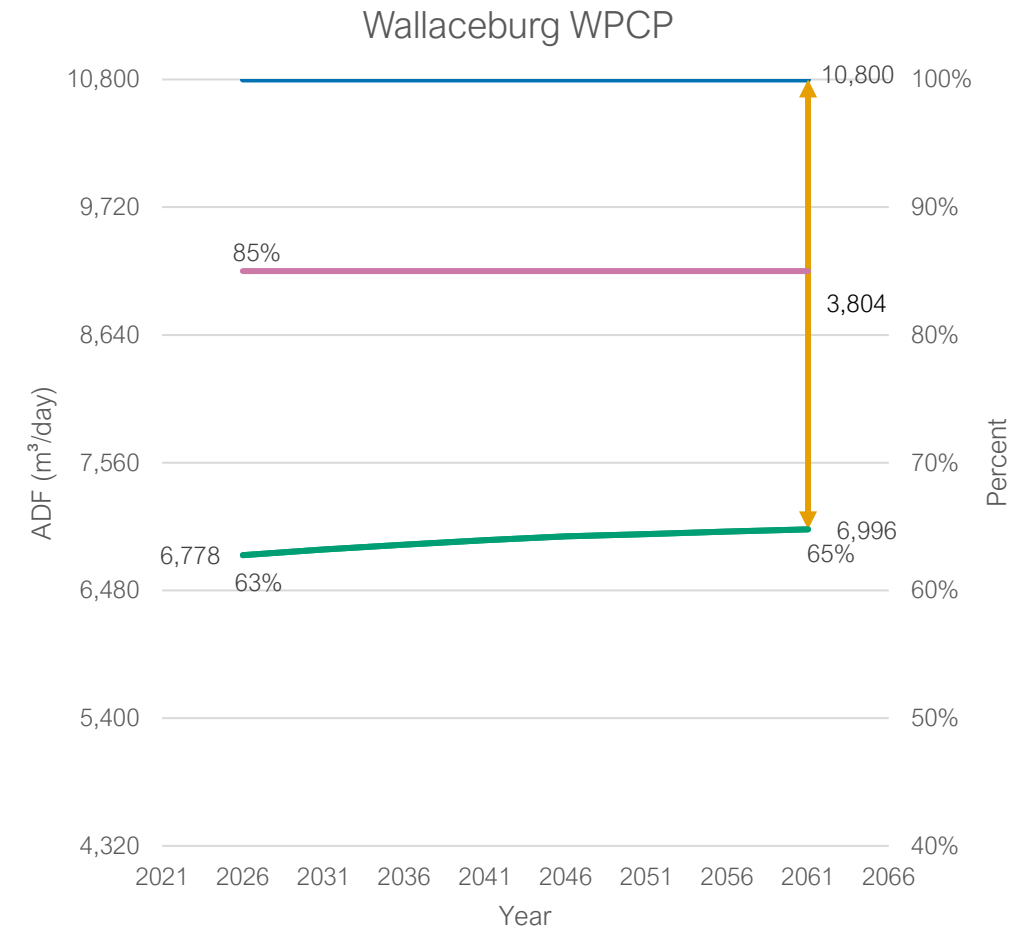


— Annual Avg Day Flows (m³/day) — Existing Plant Capacity (m³/day) - ADF
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WASTEWATER SYSTEM FLOW PROJECTIONS

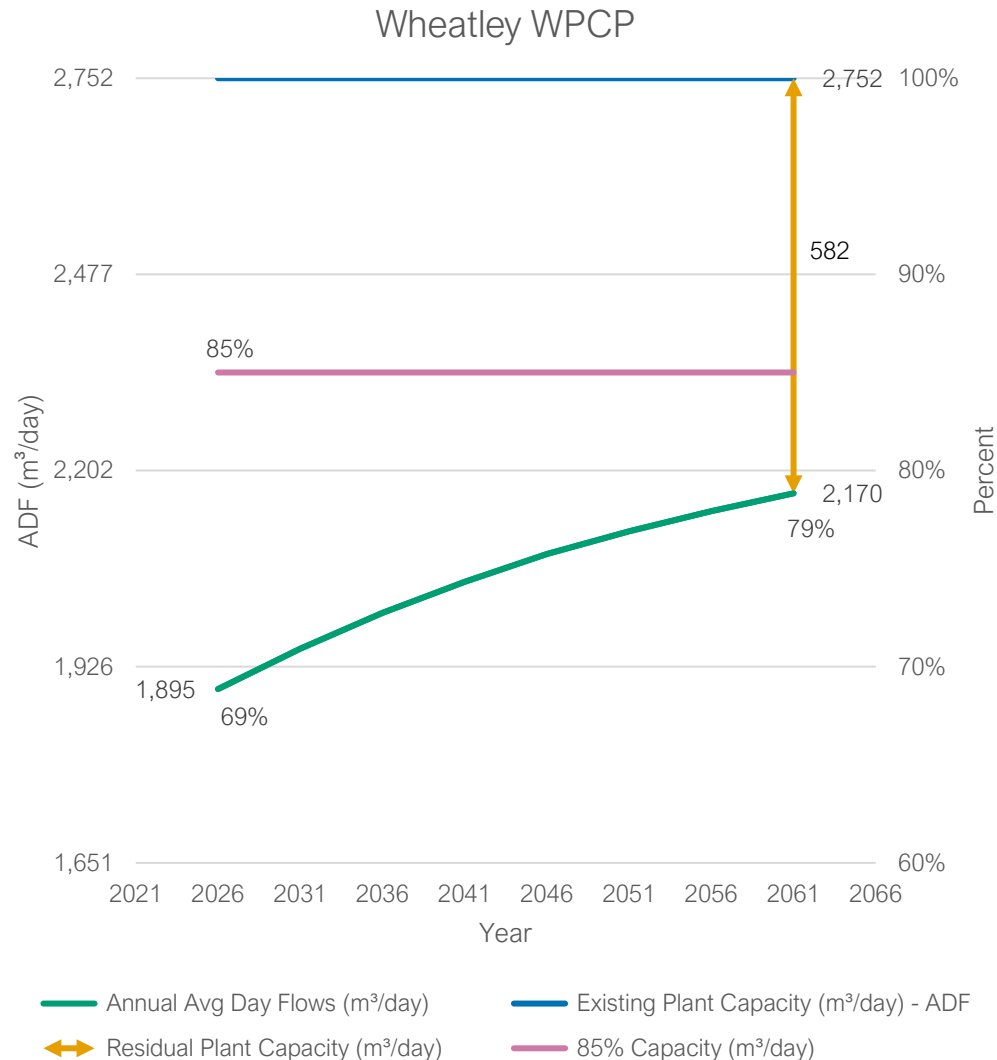


— Annual Avg Day Flows (m³/day) — Existing Plant Capacity (m³/day) - ADF
↕ Residual Plant Capacity (m³/day) — 85% Capacity (m³/day)



— Annual Avg Day Flows (m³/day) — Existing Plant Capacity (m³/day) - ADF
↕ Residual Plant Capacity (m³/day) — 85% Capacity (m³/day)

WASTEWATER SYSTEM FLOW PROJECTIONS



Preliminary Findings

- Most Wastewater Treatment Plants are projected to operate under 85% of their rated capacity by 2061; therefore, no upgrades are required due to growth within the planning horizon.
- Although the Ridgetown WPCP is currently operating at 85% of its capacity and will reach 88% by 2061, there will still be sufficient capacity at the plant in 2061.
- Peak Flows have also been analyzed and all WPCPs are projected to be within their Peak Flow Capacities
- Based on the preliminary findings and only looking at the effluent flows, no expansions are required for the WPCP's within the planning horizon

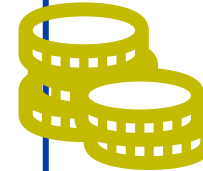
ALTERNATIVE OPTIONS EVALUATION CRITERIA

Social and Cultural



- Ability to accommodate growth to planning horizon
- Impacts to residents, businesses, First Nation, and Indigenous Communities
- Impacts to cultural heritage, archaeological resources, and land
- Effects on Public Health and Safety
- Protection of drinking water quality
- Reduction of sanitary sewer overflows and basement flooding risks
- Public Acceptability

Economical



- Capital Cost (including property acquisition)
- Operation and maintenance (O&M) costs
- Sustainability and affordability
- Eligibility for funding
- Economic development support

Technical



- Compatibility, adaptability, and constructability
- Implementation
- Optimization
- O&M requirements
- Ability to meet existing and future water/wastewater demands and flows
- Regulatory and approval requirements
- Reliability and redundancy

Environmental



- Impacts to regulated areas
- Natural Heritage resource impact, including potential to affect Species at Risk (SAR) and/or Significant Wildlife Habitat
- Climate change impacts
- Air quality impacts
- Greenhouse gas emissions
- Surface water and groundwater impacts

GREENHOUSES AND LARGE WATER USERS

- › Existing greenhouse growers have been contacted to help estimate average and peak water consumptions, patterns, trends and water needs for the future
- › The WWWMP will determine residual water systems capacities after considering residential and employment growth up to 2061.
- › Residual system capacities will identify potential for additional growth in every system from other large water users (e.g. Heavy industry, food processors, battery manufacturing, etc.) and greenhouses
- › Reserve Capacity = Remaining system capacity after allocation of projected Residential and employment demands.

- › With respect to greenhouses, potential greenhouses growth will be estimated in acres based on the resulting residual capacity for each water system
- › Potential options with irrigating greenhouses with surface water through private or public systems will be explored

NEXT STEPS

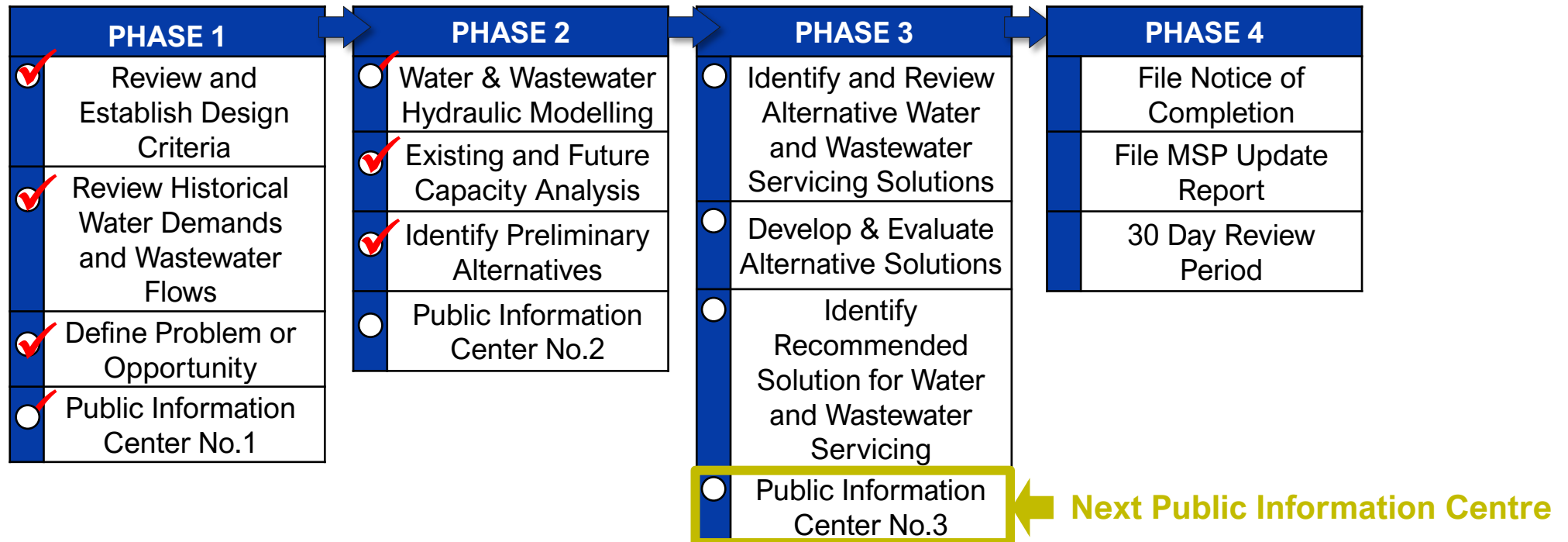
- › Evaluate identified servicing strategies and Select preferred servicing options, including public and agencies feedback from PIC#2

- › Initiation of MCEA Phase 3, namely Water and Wastewater Servicing Solutions and Evaluations including:
 - › Water: watermains and booster pumping stations based on hydraulic modeling findings
 - › Wastewater: Trunk sewers and sewage pumping stations based on hydraulic modeling findings
 - › Preferred Design Concepts
 - › Recommendations for systems redundancies: additional raw transmission mains, system interconnections, back-up generation and surveillance
 - › Regionalization of wastewater systems to minimize risks and address high operation costs
 - › Financial Analysis and Capital Plan
 - › Public Information Centre #3

- › MCEA Phase 4 – Project File Report and 30-day review period

NEXT STEPS

- › A Public Information Centre No.3 is anticipated to be held in January 2027 upon finalization of MCEA Phase 3. PIC No.3 will present the different findings and provide an opportunity for the public, agencies, and Indigenous community to provide their input.



Thank You for Attending!

Following this Public Information Centre (PIC No. 2), the Project Team will consider the different stakeholders' input, provide responses and continue to Phase 3 of the Master Plan. Once these steps are completed, the next PIC will be held (anticipated date: January 2027).

Questions and Comments?

Please submit your questions and comments to one of the project team members listed below and subscribe to the Master plan Let's Talk Page for project updates.

Chatham-Kent PUC

Dhana Niriella, PhD, P.Eng., PE(FL)

Manager of Engineering

ckpuc@chatham-kent.ca

R.V. Anderson Associates Limited

Walid Abi Akar, P. Eng.

Project Manager

chatham-kentwwwmp@rvanderson.com

Please Provide Comments by October 8, 2026