



WELCOME

Wellington Water and Wastewater Infrastructure

Public Information Meeting

Thursday, August 31, 2023

6:00pm to 8:00pm

Wellington & District Community Centre

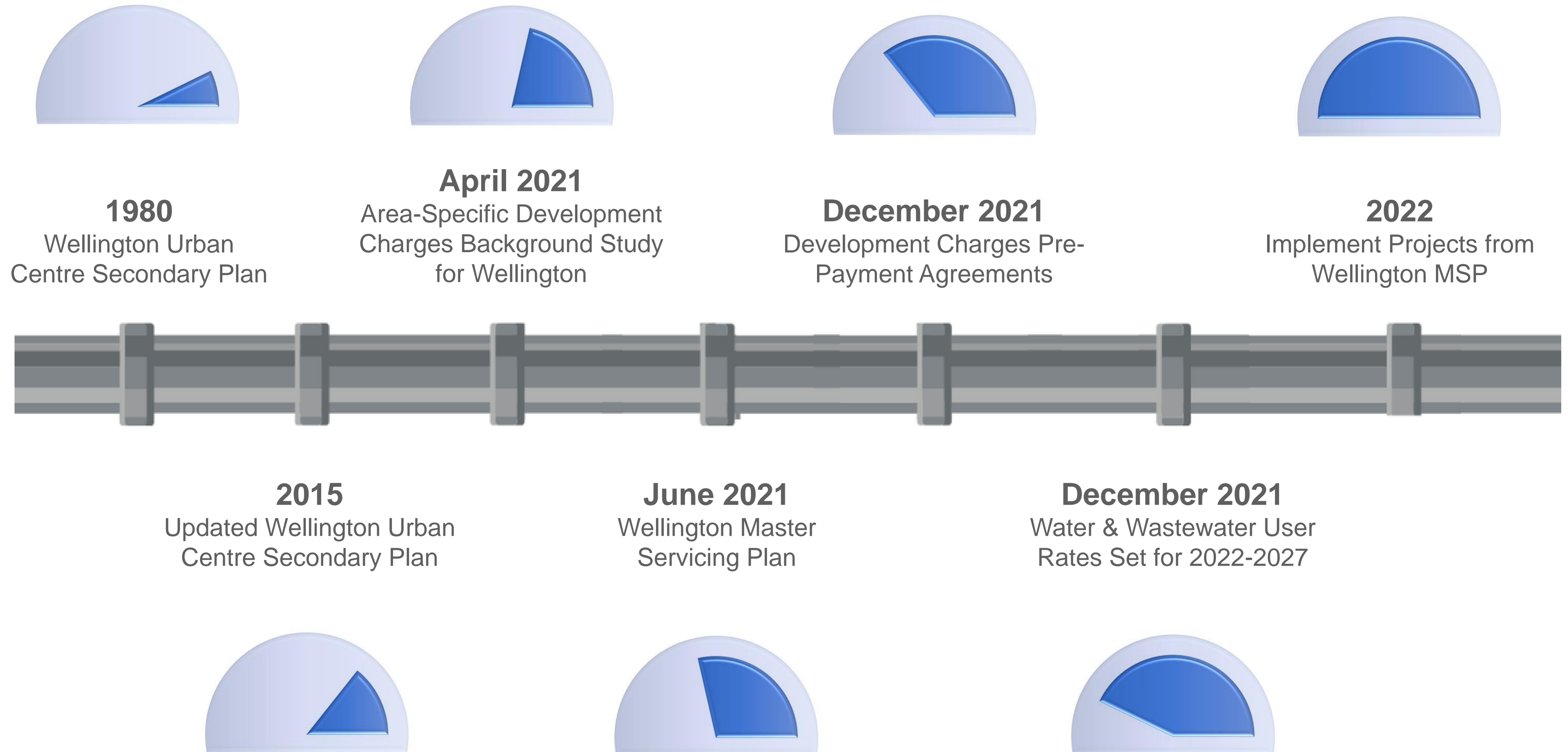
Why are we here tonight?

The County has received many questions regarding infrastructure plans in Wellington. The meeting tonight will outline the principles guiding the plans in Wellington and the County.

Guiding Principles:

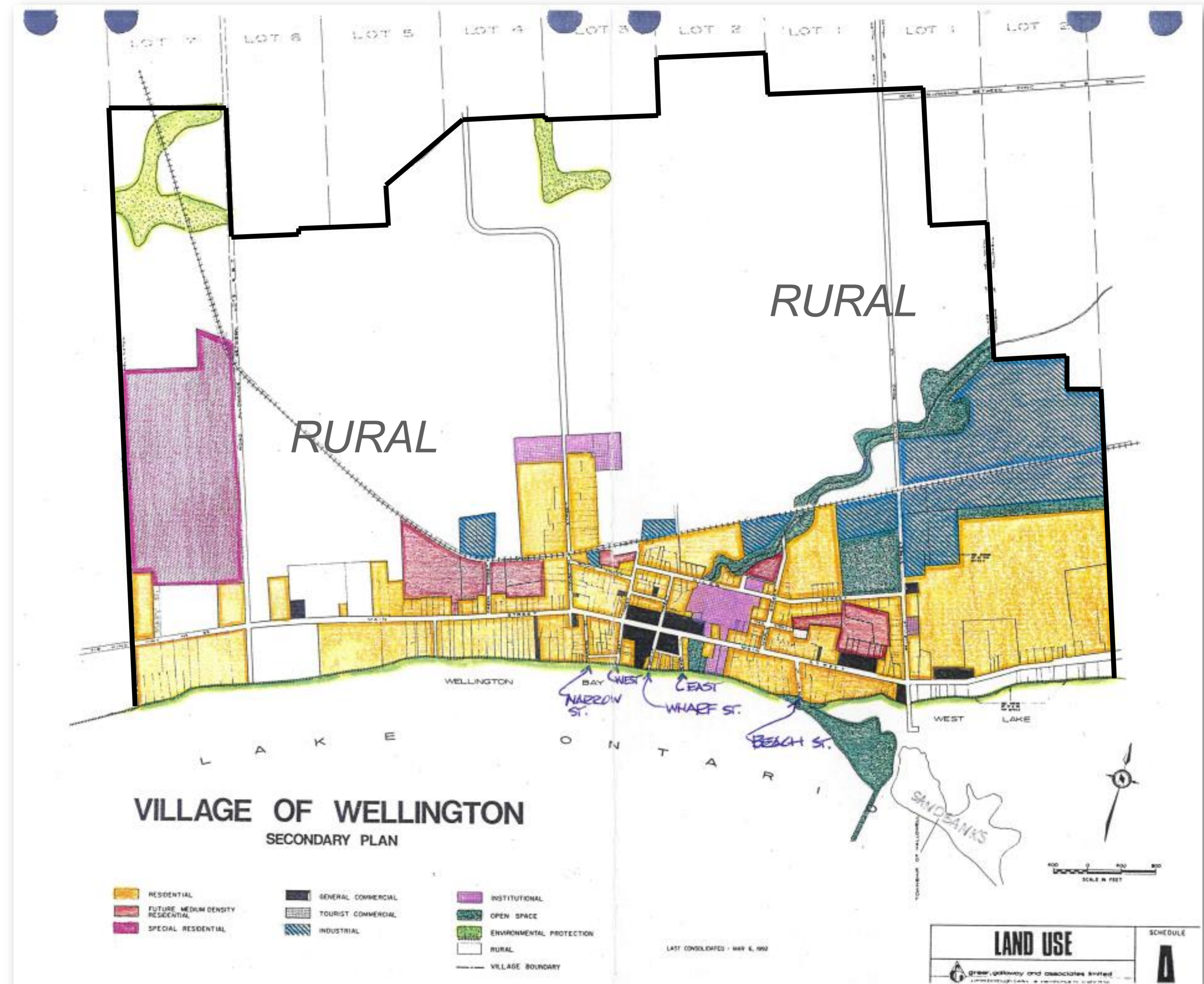
- ✓ Work to stabilize and lower Water & Wastewater Rates
- ✓ Expand infrastructure capacity to support new housing
- ✓ Ensure developers pay fair share of new infrastructure
- ✓ Develop regional water servicing strategy to improve service and realize efficiencies

Wellington Milestones



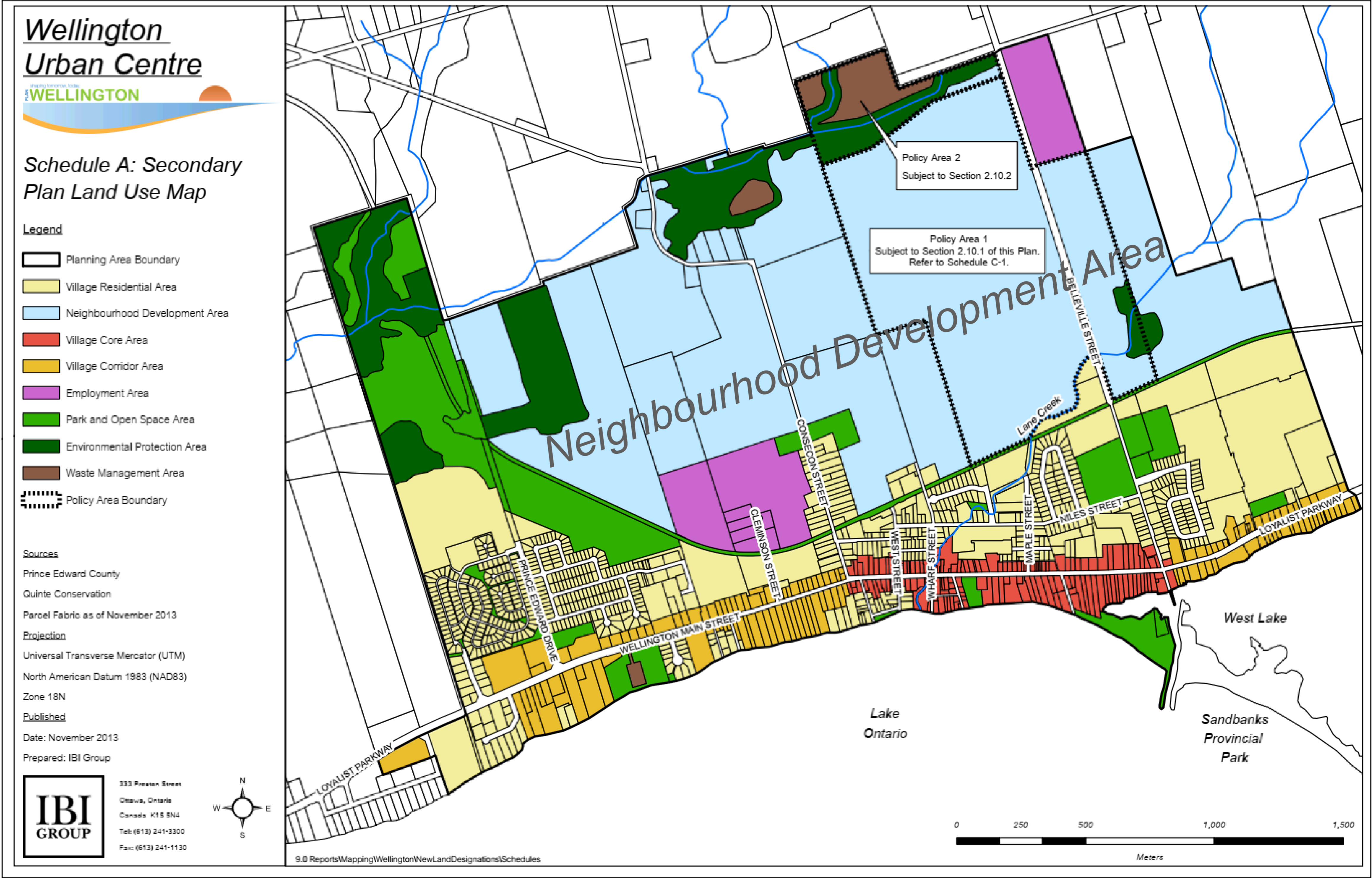
Wellington Urban Centre Secondary Plan

- Approved by the Province in 1980
- White space within Village boundary designated as “Rural” where residential building would not have been permitted
- Existing water and wastewater treatment plants designed based on this Village boundary



Wellington Urban Centre Secondary Plan

- Approved by the Province in 2015 following three community engagement workshops
- “Rural” areas from 1980 plan now designated as “Neighbourhood Development Area”
- County obligated to provide services for properties within designated urban boundary or could face legal risks

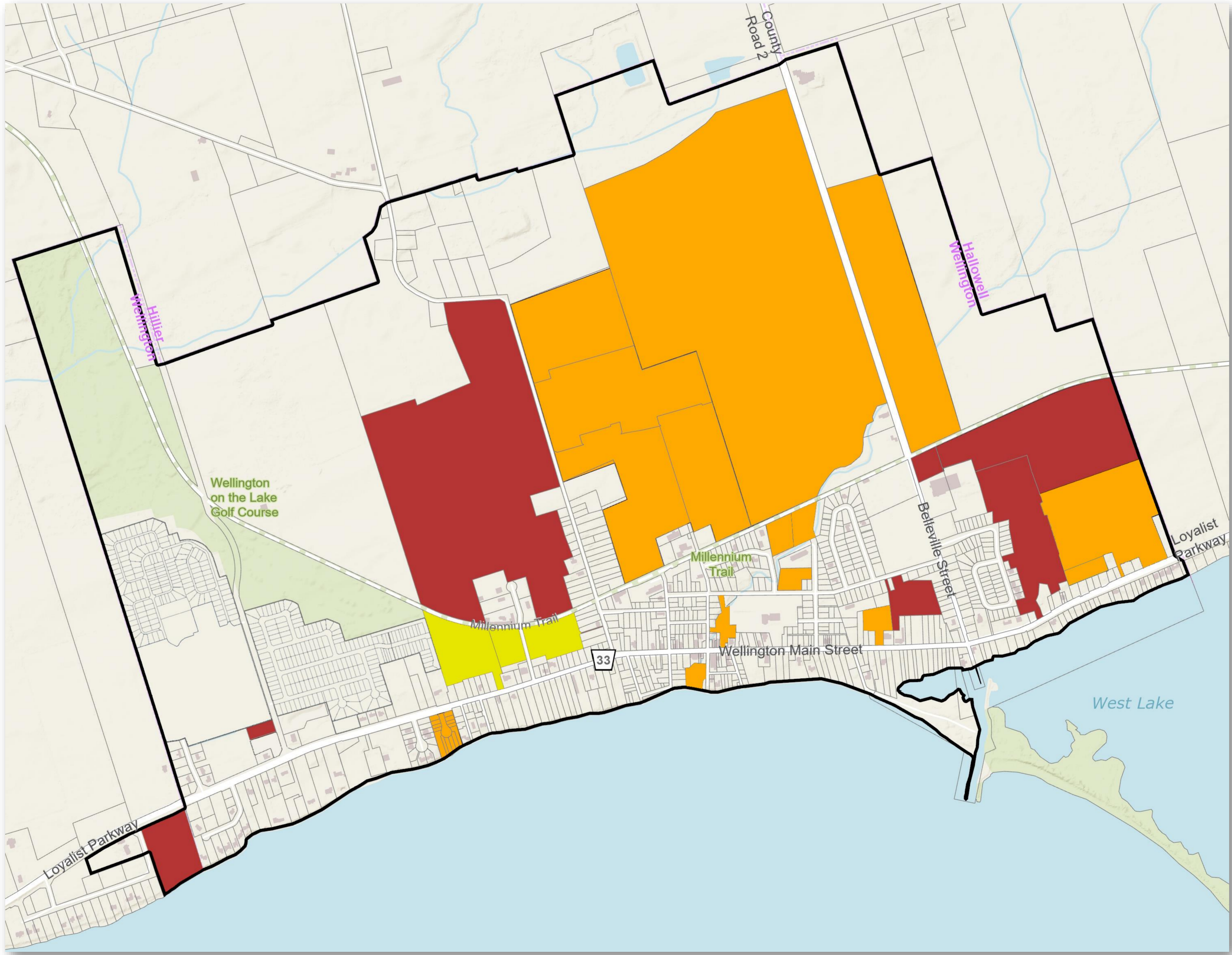


Planning Applications and Proposals in Wellington

Approved
Approx.
Population = 3,537

Complete Application
Approx.
Population = 564

Pre-Consultation
Approx.
Population = 4,183



Prince Edward County Growth Study (April, 2023)

The County retained Watson & Associates Economists Ltd. to undertake a Growth Study. The Study provides three 25-year (i.e. 2022 to 2047) population growth scenarios and allocations, and is intended to serve as input to the County's development charges background study and the Picton Master Servicing Plan.

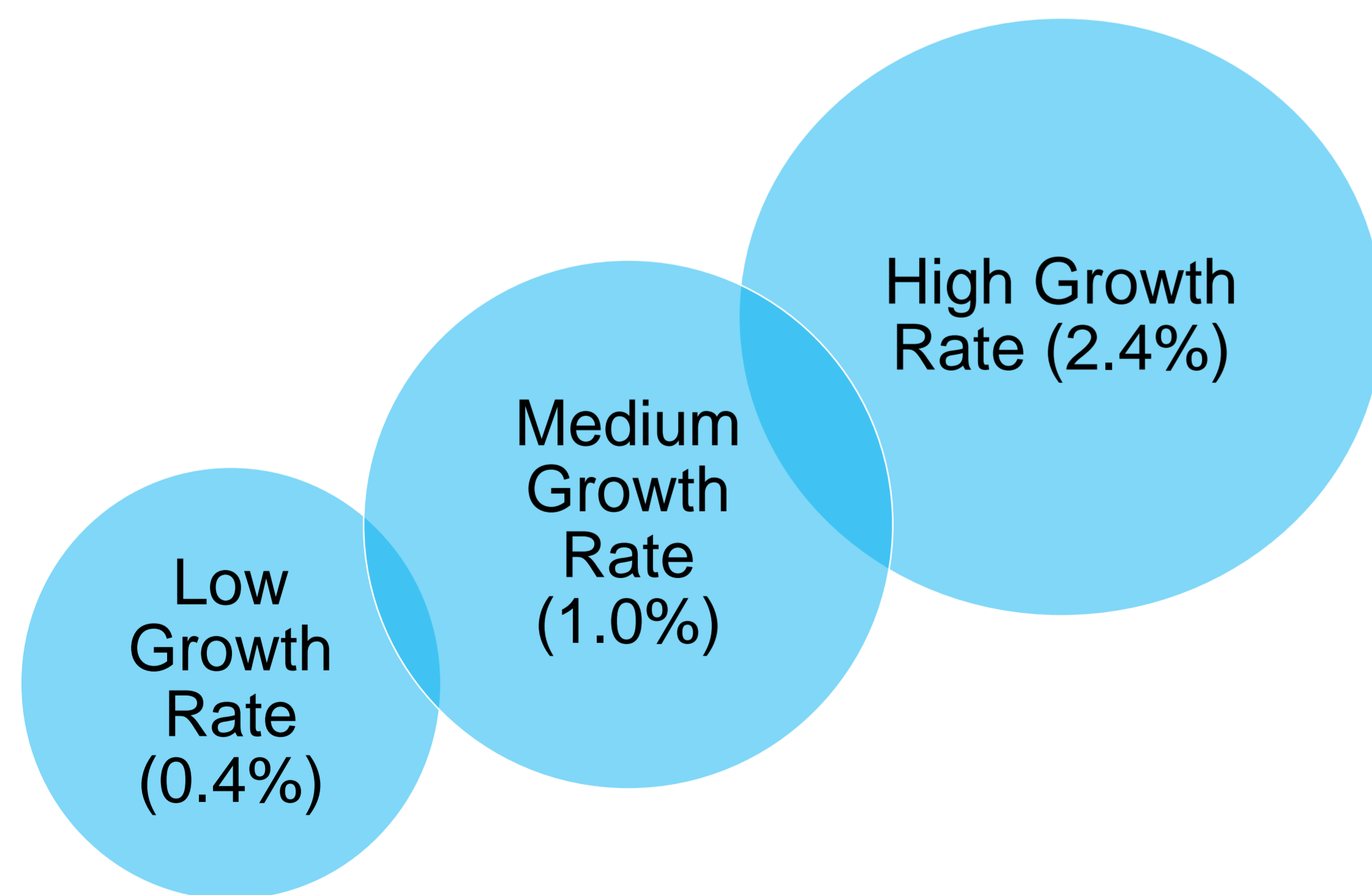
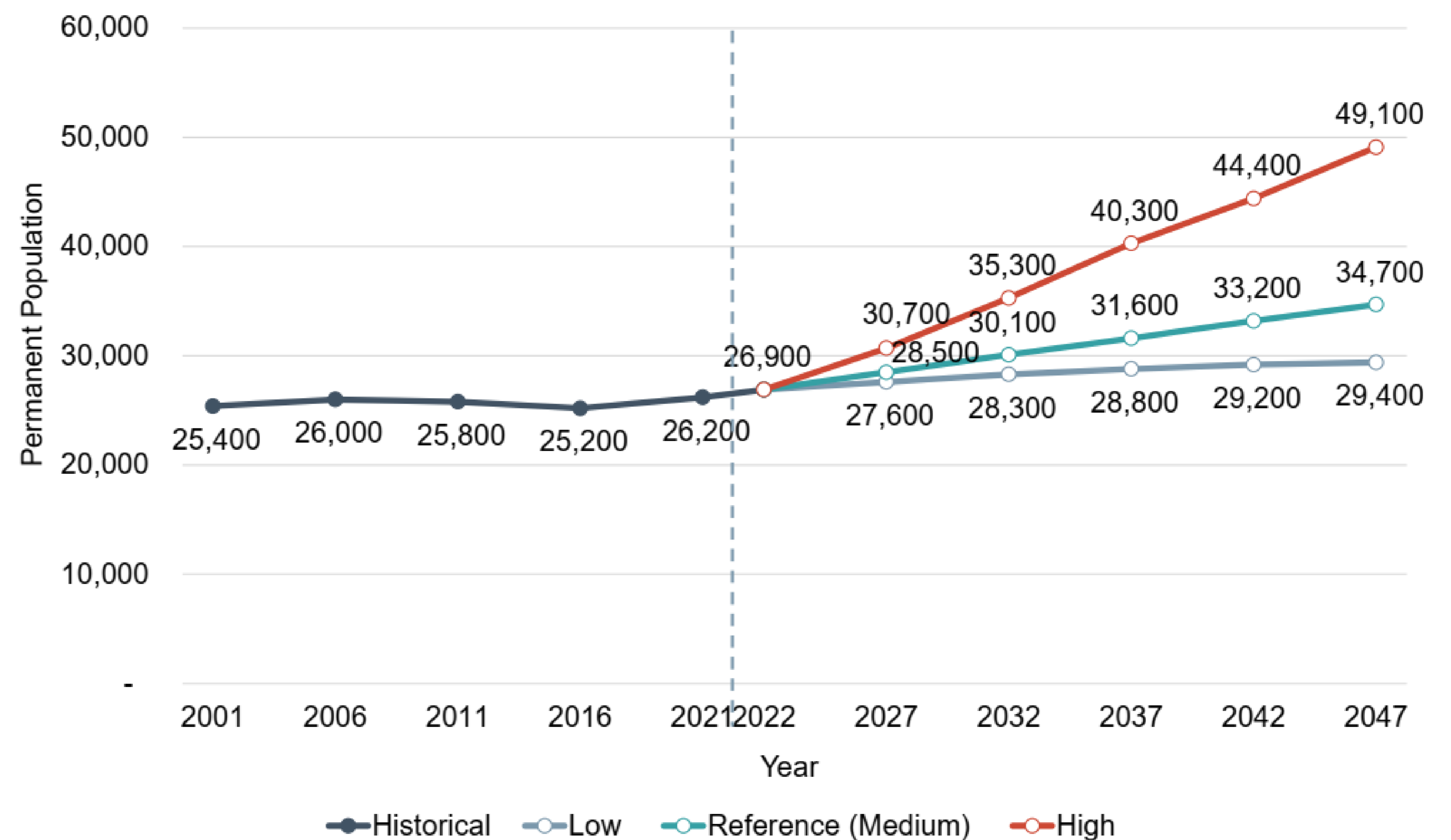


Figure ES-1
Prince Edward County
Long-Term Permanent Population Forecast Scenarios, 2022 to 2047



Note: Permanent population includes Census undercount estimated at 2.1%.
Source: Historical data from Statistics Canada, 2001-2021. Forecasts prepared by Watson & Associates Economists Ltd., 2023.

Prince Edward County Growth Study (April, 2023)

Over the forecast period, PEC’s fully serviced urban areas (i.e. Picton and Wellington) are anticipated to account for 75% (low), 72% (medium) and 86% (high) of PEC’s total and permanent and seasonal population.

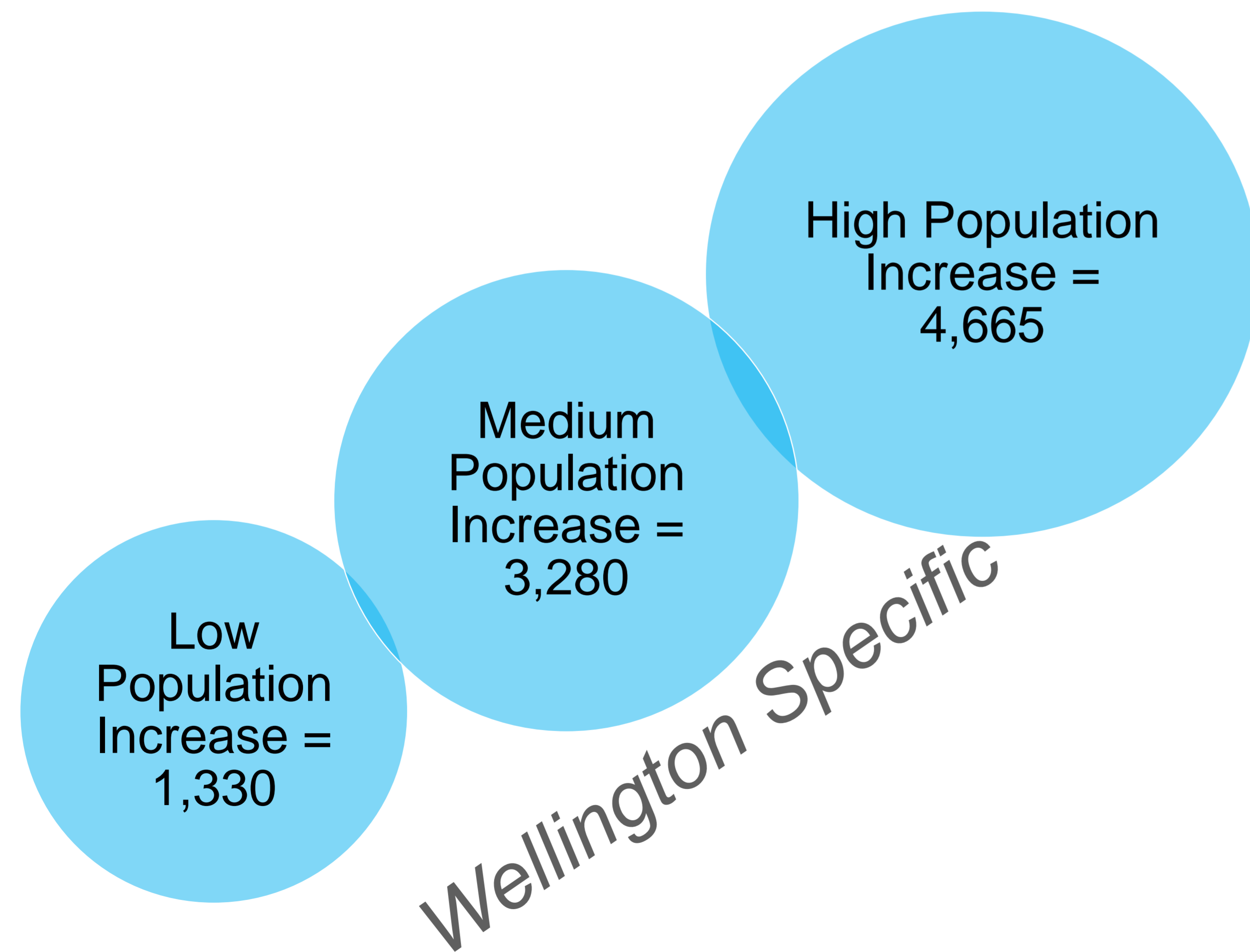


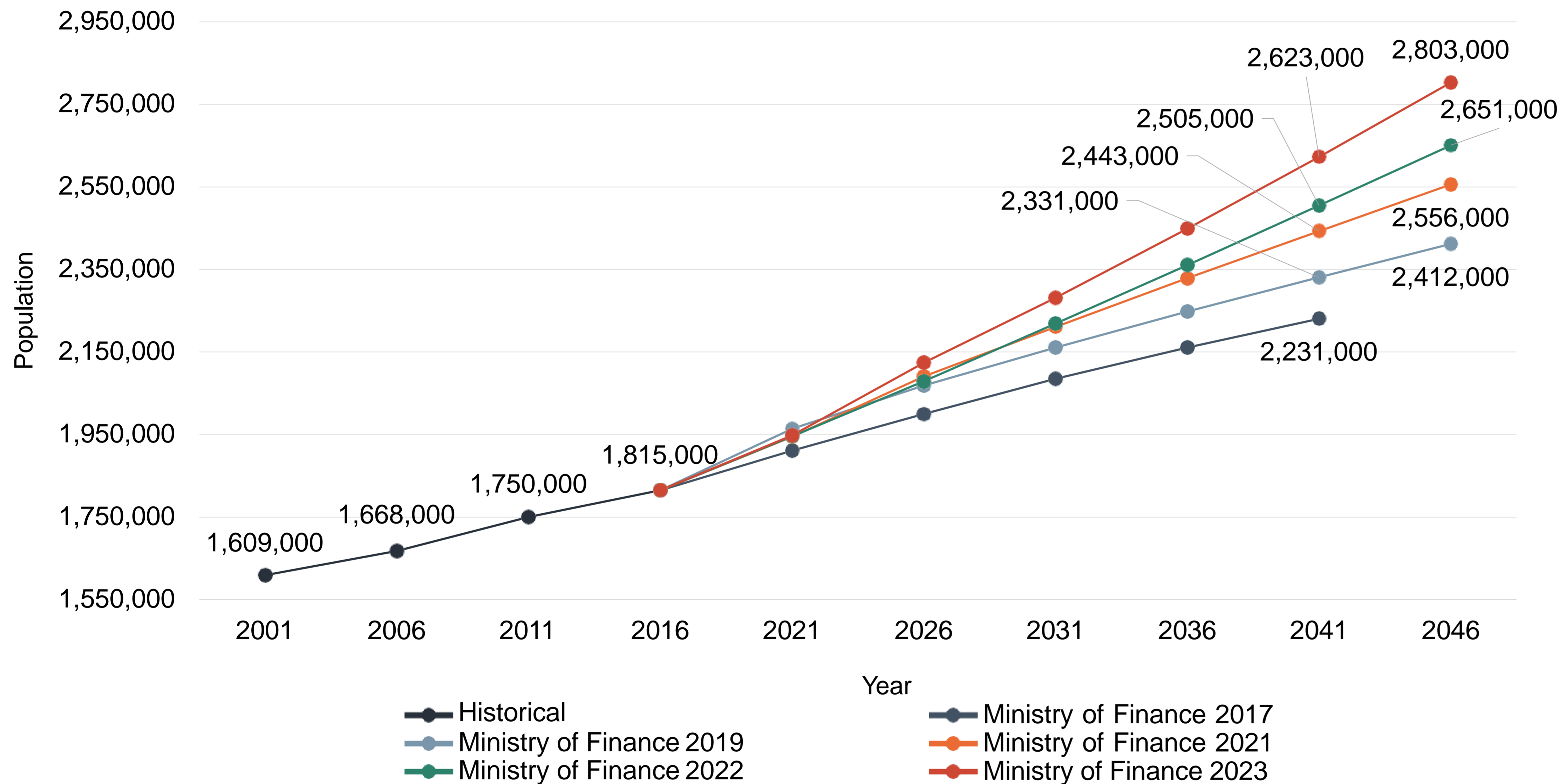
Figure 4-A
Prince Edward County
Population Growth by Geographic Area, 2022 to 2047

	Geographic Location	Permanent Population	Seasonal Population	Total Population
Reference (Medium) Growth Scenario	Picton	4,375	70	4,445
	Wellington	3,120	160	3,280
	Urban Subtotal (Fully Serviced)	7,490	230	7,720
	Bloomfield	125	10	130
	Rossmore	30	5	30
	Concsecon	45	5	45
	Ameliasburgh	45	-	45
	Urban Subtotal (Water Only)	245	15	260
	Rural	135	2,550	2,685
	Prince Edward County	7,900	2,800	10,700
Low Growth Scenario	Picton	1,650	35	1,685
	Wellington	1,245	80	1,330
	Urban Subtotal (Fully Serviced)	2,895	115	3,015
	Bloomfield	35	5	40
	Rossmore	(5)	-	(5)
	Concsecon	10	-	10
	Ameliasburgh	15	-	15
	Urban Subtotal (Water Only)	55	10	65
	Rural	(380)	1,300	920
	Prince Edward County	2,600	1,400	4,000
High Growth Scenario	Picton	16,705	70	16,775
	Wellington	4,505	160	4,665
	Urban Subtotal (Fully Serviced)	21,210	230	21,440
	Bloomfield	250	10	255
	Rossmore	145	5	145
	Concsecon	120	5	120
	Ameliasburgh	60	-	60
	Urban Subtotal (Water Only)	570	15	585
	Rural	425	2,550	2,975
	Prince Edward County	22,200	2,800	25,000

Notes:
 - Permanent population includes institutional.
 - Numbers may not add due to rounding.
 - Population includes net Census undercount of approximately 2.1%.
 Source: Watson & Associates Economists Ltd., 2023.

Economic and Demographic Trends

Ministry of Finance Population Forecasts for Eastern Ontario



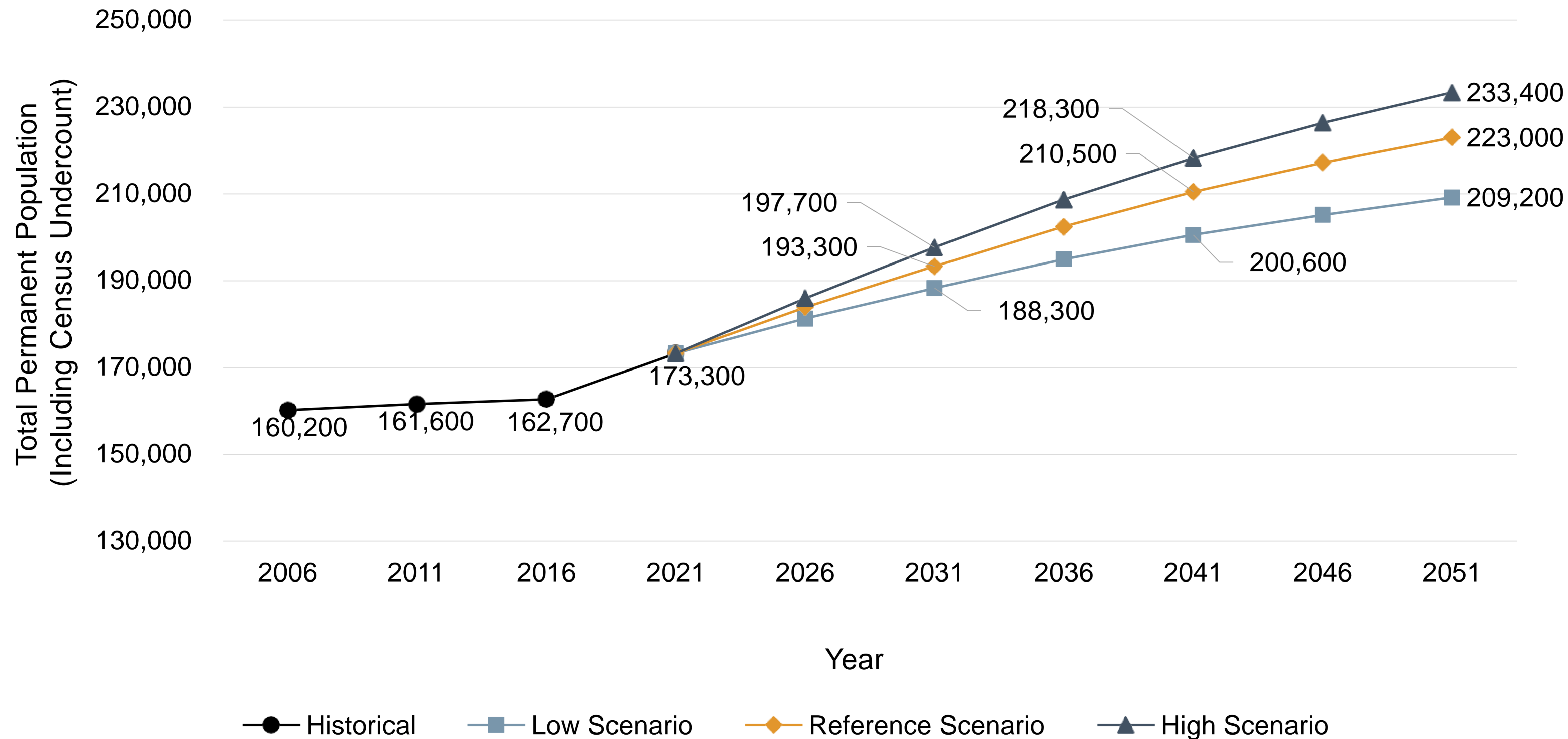
M.O.F. Growth Rate:

- 2017: 0.8%
- 2019: 1.0%
- 2021: 1.1%
- 2022: 1.3%
- 2023: 1.5%**

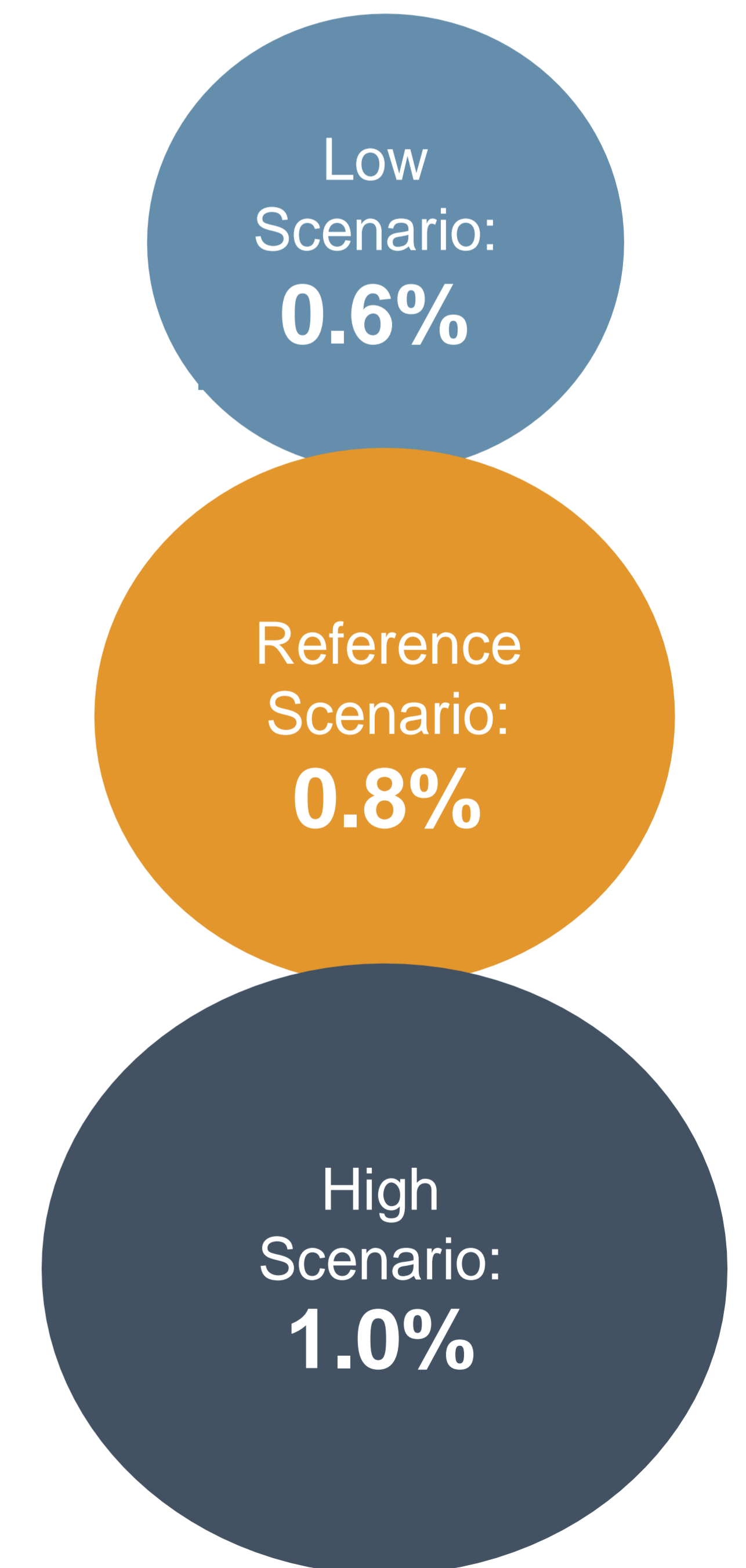
Note: Population includes net Census undercount. Figures have been rounded.

Source: Historical derived from Statistics Canada Census, 2001 to 2021, and Ministry of Finance Projections from Spring 2017, Summer 2019 and Spring 2021, Summer 2022, and Summer 2023 releases, by Watson & Associates Economists Ltd.

Hastings/PEC Regional Area Permanent Population Forecast Scenarios, 2021 to 2051



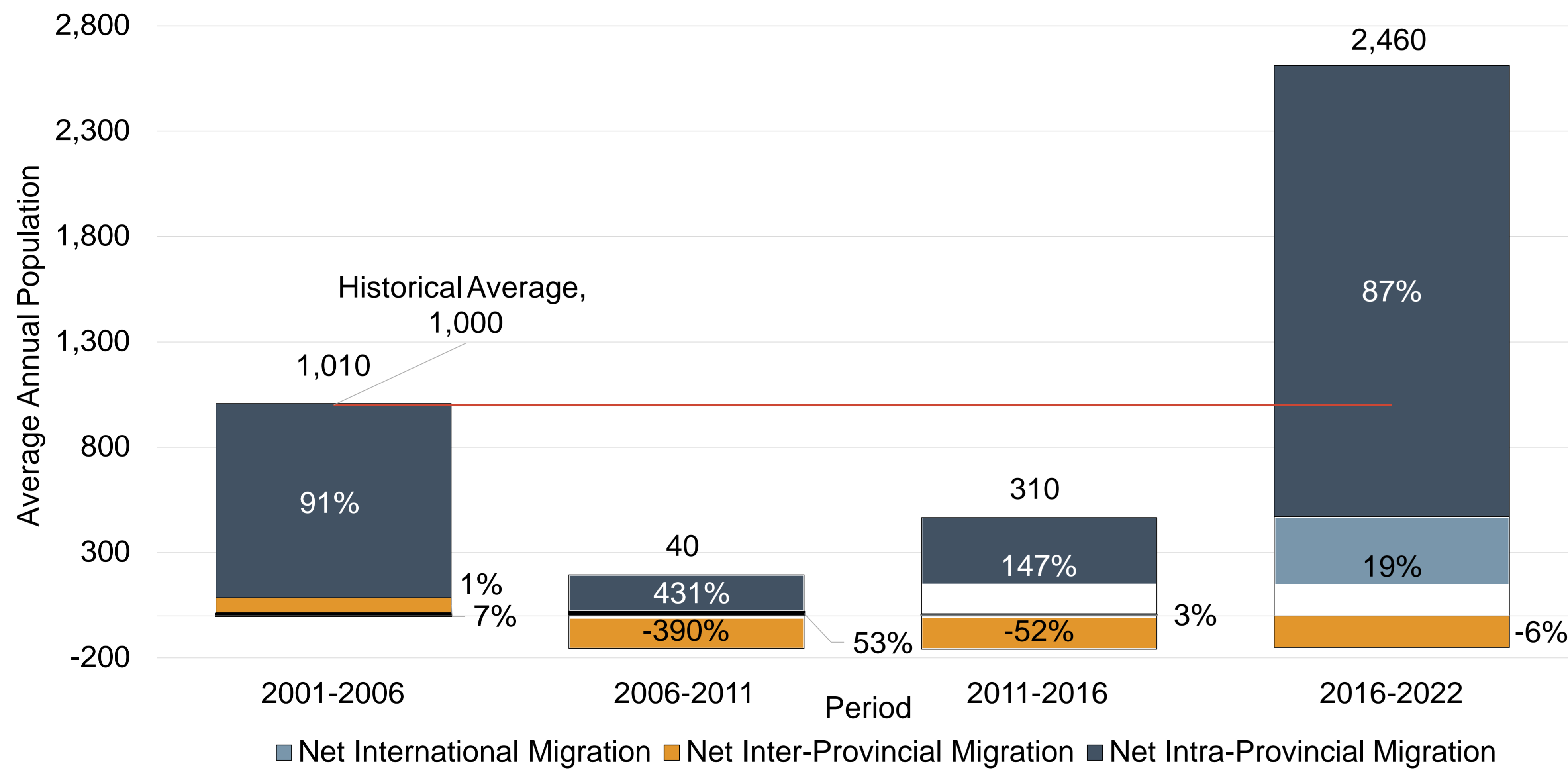
2021 to 2051 Annual Growth Rates



Note: Population includes net Census undercount.
Source: Historical derived from Statistics Canada Census and Demography Division data, 2006 to 2021. 2021 to 2051 forecast by Watson & Associates Economists Ltd.

Hastings/PEC Regional Area

Historical Migration Trends by Type, 2001 to 2022



Note: Figures have been rounded. Figures are not adjusted for the residual deviation.

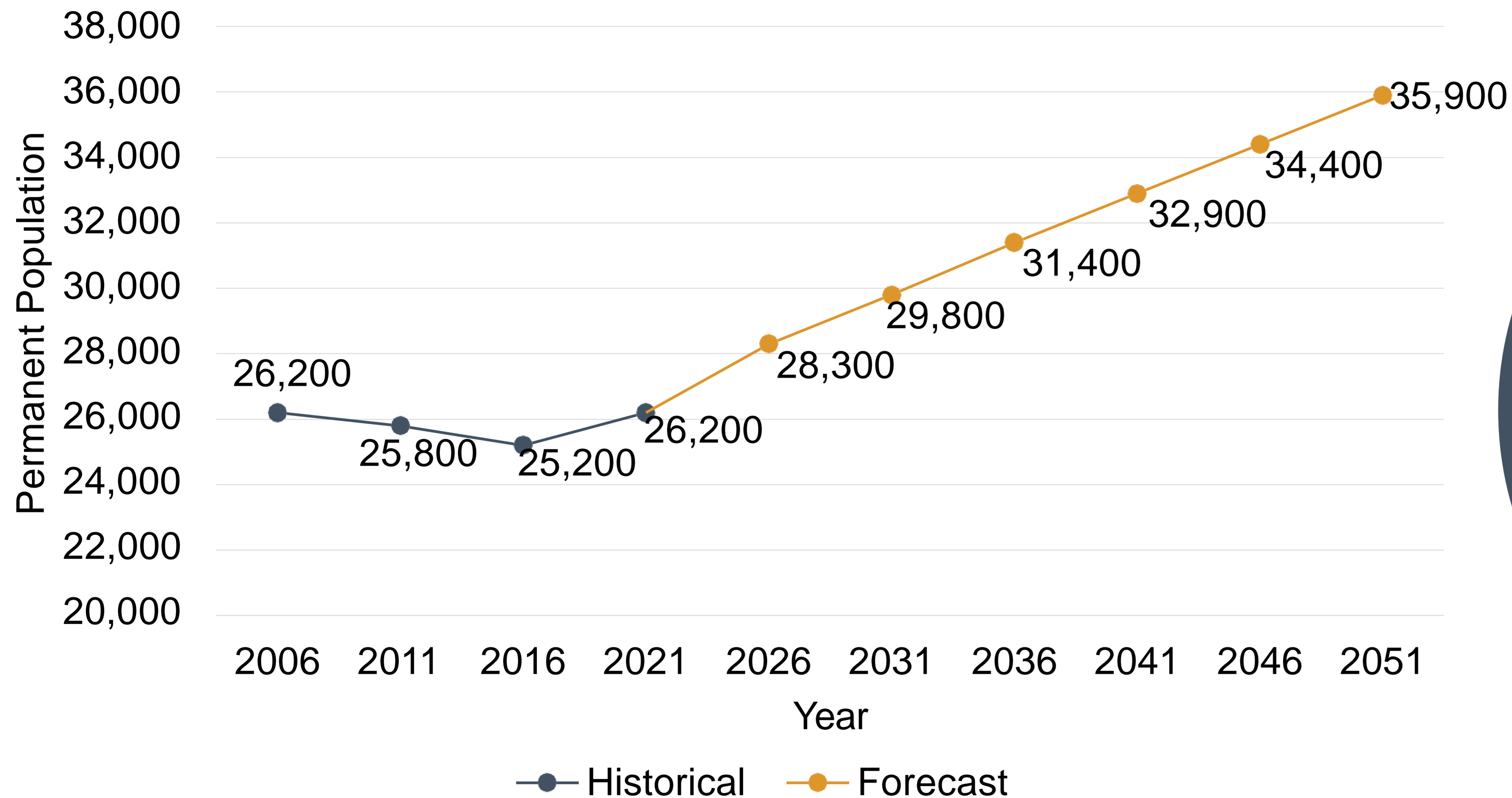
Source: Statistics Canada Table 17-10-0140-01, Components of Population Change by Census Division, 2016 boundaries, by Watson & Associates Economists Ltd.

Intra-Provincial Migration was the largest component of Net Migration for Hastings/PEC between 2001 and 2022.

Census Division	Share of Migration from Canadian Census Divisions to PEC- Hastings Area, 2015 to 2020
G.T.H.A.	36%
G.G.H. Outer-Ring	26%
G.G.H. Total	61%
Ottawa Economic Region	10%
Remaining Ontario	14%
Ontario Total	85%
Outside Ontario	15%
Total	100%

Prince Edward County Population Forecast, 2021 to 2051

Reference Scenario



**Total Growth:
2021 to 2051
9,700**

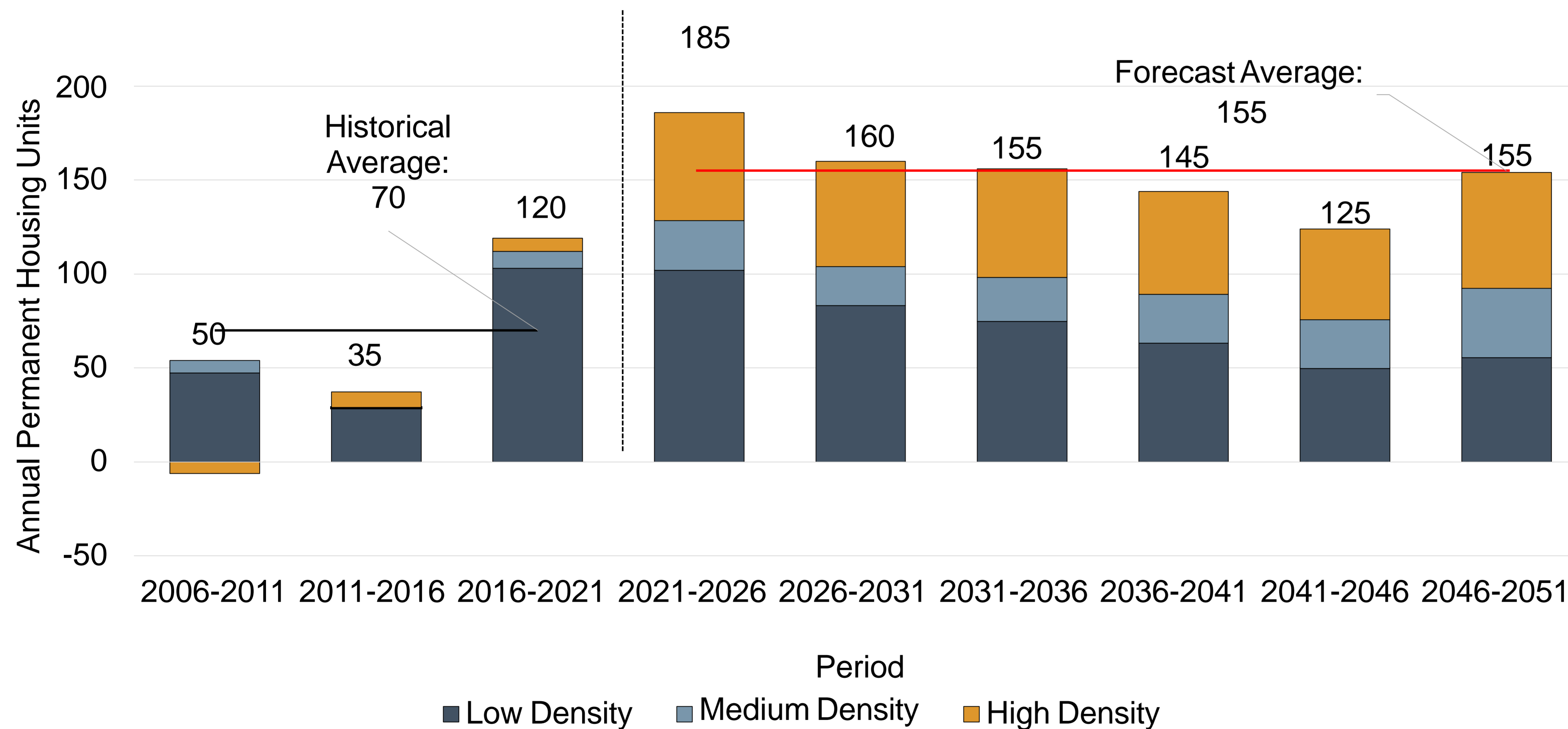
**Annual Growth
Rate:
2006-2021: 0.0%
2021-2051: 1.1%**

Note: Population includes net Census undercount and has been rounded.

Source: 2001 to 2021 derived from Statistics Canada Census data. 2021 to 2051 by forecasted by Watson & Associates Economist Ltd.

Prince Edward County Incremental Permanent Housing Growth in New Units, 2021 to 2051

Reference Scenario



2021 to 2051 total housing growth: **4,620 units**

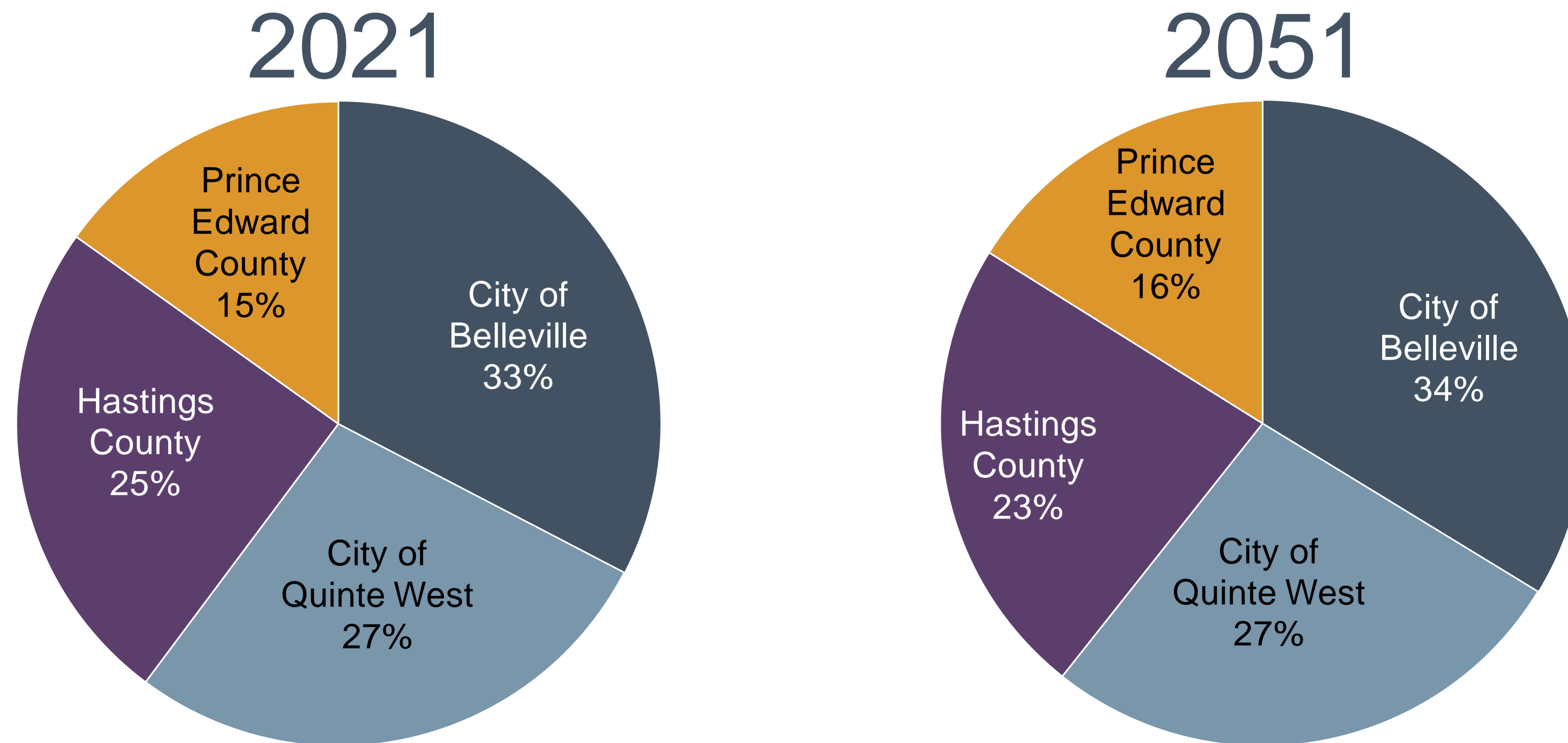
2021 to 2051 total housing growth mix:
 Low: **46%**
 Medium: **17%**
 High: **36%**

Note:
 Low Density includes singles and semis.
 Medium density includes townhouses and apartments in duplexes.
 High Density includes bachelor, 1-bedroom and 2-bedroom + apartments.

Source: 2006 to 2021 derived from Statistics Canada Census data. 2021 to 2051 by forecasted by Watson & Associates Economist Ltd.

Hastings/PEC Regional Area Permanent Population Shares by Single/Upper-Tier Municipality, 2021 to 2051

Reference Scenario



Source: 2021 derived from Statistics Canada Census data. 2051 forecast by Watson & Associates Economist Ltd.

Conclusions

Economic Drivers of Population Growth

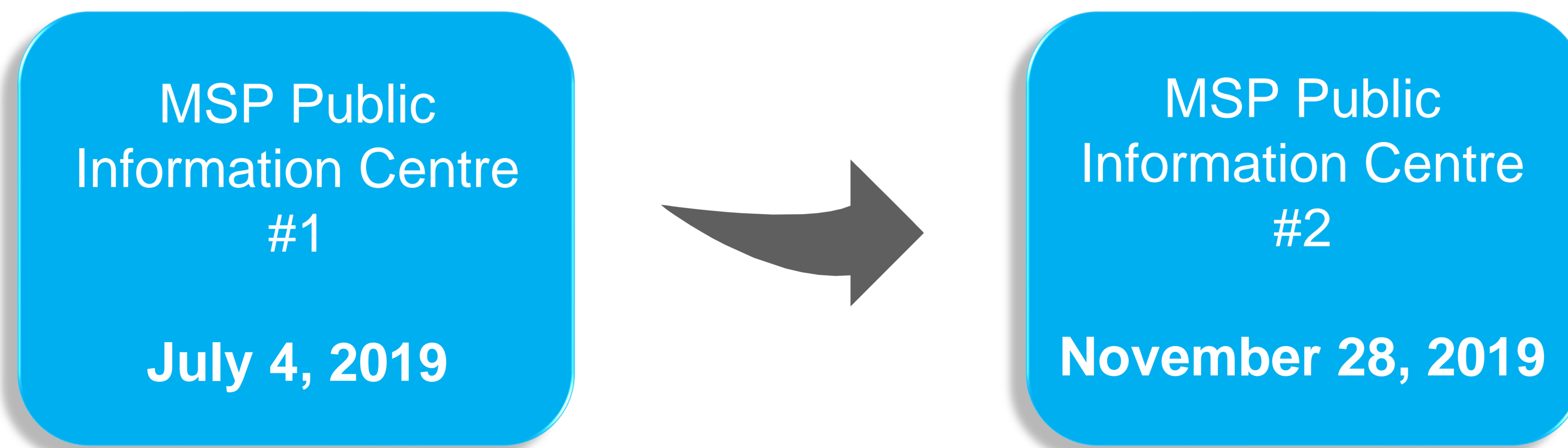
- Higher federal immigration targets and relatively stronger regional economic conditions will continue to drive higher population growth to the Hastings/PEC Regional Area over the long-term.
- Increased work from home, including hybrid “work at home/work at office” models are also creating greater possibilities to live and work within the Hastings / PEC Regional Area.
- In turn, greater population growth opportunities also generates increased demand for population-related employment (e.g. retail, institutional and personal services).
- Total employment for the study area is forecast to increase by just over 17,000 jobs between 2023 and 2051

Residential

- The Hastings/PEC Regional Area total permanent population is forecast to increase from 173,200 in 2021 to 223,000 by 2051, representing an increase of just under 50,000 permanent residents.
- The population is aging with the 75+ age group growing significantly faster than the total population. This places increased pressure for seniors’ housing, affordable housing and community and social services geared to seniors.
- Increased population growth associated with younger adults and working age families will also continue to place increased demand for range of low-, medium- and high- density housing options, including affordable and rental housing.
- Continued demand for new seasonal housing dwellings and the conversion of seasonal dwellings to full-time occupancy will place increasing demands on infrastructure and municipal services for Hastings County and Prince Edward County.

Wellington Master Servicing Plan (MSP)

- Wellington MSP identified, evaluated and prioritized infrastructure upgrades for water, wastewater and stormwater management services.
- MSP accommodates immediate and long-term growth opportunities to fully build-out the Wellington Urban Centre Secondary Plan Area.
- MSP prepared by R.V. Anderson Associates Ltd. and finalized in June of 2021 following a 30-day public review period.



Wellington MSP Preferred Alternatives for Water & Wastewater



Under Construction

Tendering Phase

Schedule 'C' MCEA

Water Storage & Supply

New Elevated Water Storage Tank

New Millennium Trail Trunk Watermain

New Water Treatment Plant (WTP)

Wastewater Collection & Treatment

New WWTP Equalization Tank

New Millennium Trail Trunk Sanitary Sewer

New Wastewater Treatment Plant (WWTP)



Under Construction

Tendering Phase

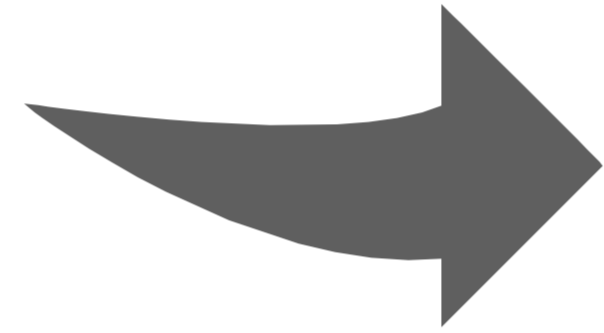
Schedule 'C' MCEA

Area-Specific Development Charges Background Study for the Wellington Urban Serviced Area

- Study prepared pursuant to the requirements of the Development Charges Act (D.C.A.), 1997 (s.10).
- Adopted by Council in 2021 following public review period.
- Development Charges (DCs) are fees collected from developers at the time of building permit to help pay for the cost of infrastructure required to provide municipal services to new development, such as water and wastewater infrastructure.
- DCs help ensure growth pays for growth.
- Infrastructure costs estimates included in the DC are from the Wellington MSP.
- Area specific so only applies to growth in Wellington.

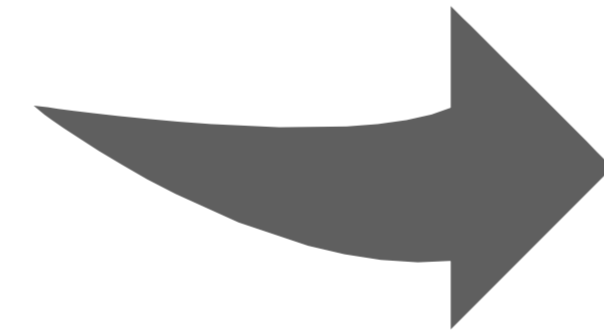
Area-Specific Development Charges Background Study for the Wellington Urban Serviced Area

Infrastructure Costs included in the Wellington Urban Serviced Area A.S.D.C. Calculations for Water Services



Description	Timing	Gross Capital Cost	Post Period Benefit	Net Growth Related Costs	Benefit to Existing Development		Potential D.C. Recoverable Costs		
					%	\$	Total	Residenital 59%	Non-Residential 41%
WTP									
Phase 1	2021-2024	23,500,000	-	23,500,000	18%	4,207,882	19,292,118	11,387,055	7,905,063
Phase 2	Post 2042	13,600,000	813,600	12,786,400	18%	2,289,518	10,496,882	6,195,721	4,301,162
Water Tower									
New Elevated Tank	2019-2021	6,950,000	-	6,950,000	38%	2,627,100	4,322,900	2,551,565	1,771,335
2nd Water Tank/Resvoir	Post 2042	8,850,000	-	8,850,000	0%	-	8,850,000	5,223,659	3,626,341
Watermain Trunk									
Phase 1	2020-2022	6,650,000	-	6,650,000	18%	1,190,741	5,459,259	3,222,294	2,236,965
Phase 2	Post 2042	3,450,000	1,469,305	1,980,695	18%	354,661	1,626,034	959,757	666,277
Studies									
D.C. Background Study	2021	12,500	-	12,500	0%	-	12,500	7,378	5,122
Total		63,012,500	2,282,905	60,729,595	18%	10,669,902	50,059,693	29,547,428	20,512,264

Infrastructure Costs included in the Wellington Urban Serviced Area A.S.D.C. Calculations for Wastewater Services



Description	Timing	Gross Capital Cost	Post Period Benefit	Net Growth Related Costs	Benefit to Existing Development		Potential D.C. Recoverable Costs		
					%	\$	Total	Residenital 66%	Non-Residential 34%
WWTP									
Phase 1	2020-2024	24,900,000	-	24,900,000	28%	7,072,660	17,827,340	11,771,534	6,055,807
Phase 2	Post 2042	2,800,000	-	2,800,000	28%	795,319	2,004,681	1,323,707	680,974
Sanitary Trunk									
Sanitary Trunk	2020-2022	5,555,479	-	5,555,479	0%	-	5,555,479	3,668,326	1,887,152
Studies									
D.C. Background Study	2021	12,500	-	12,500	0%	-	12,500	7,378	5,122
Total		33,267,979	-	33,267,979	24%	7,867,979	25,400,000	16,770,945	8,629,055

Indexed July 2023

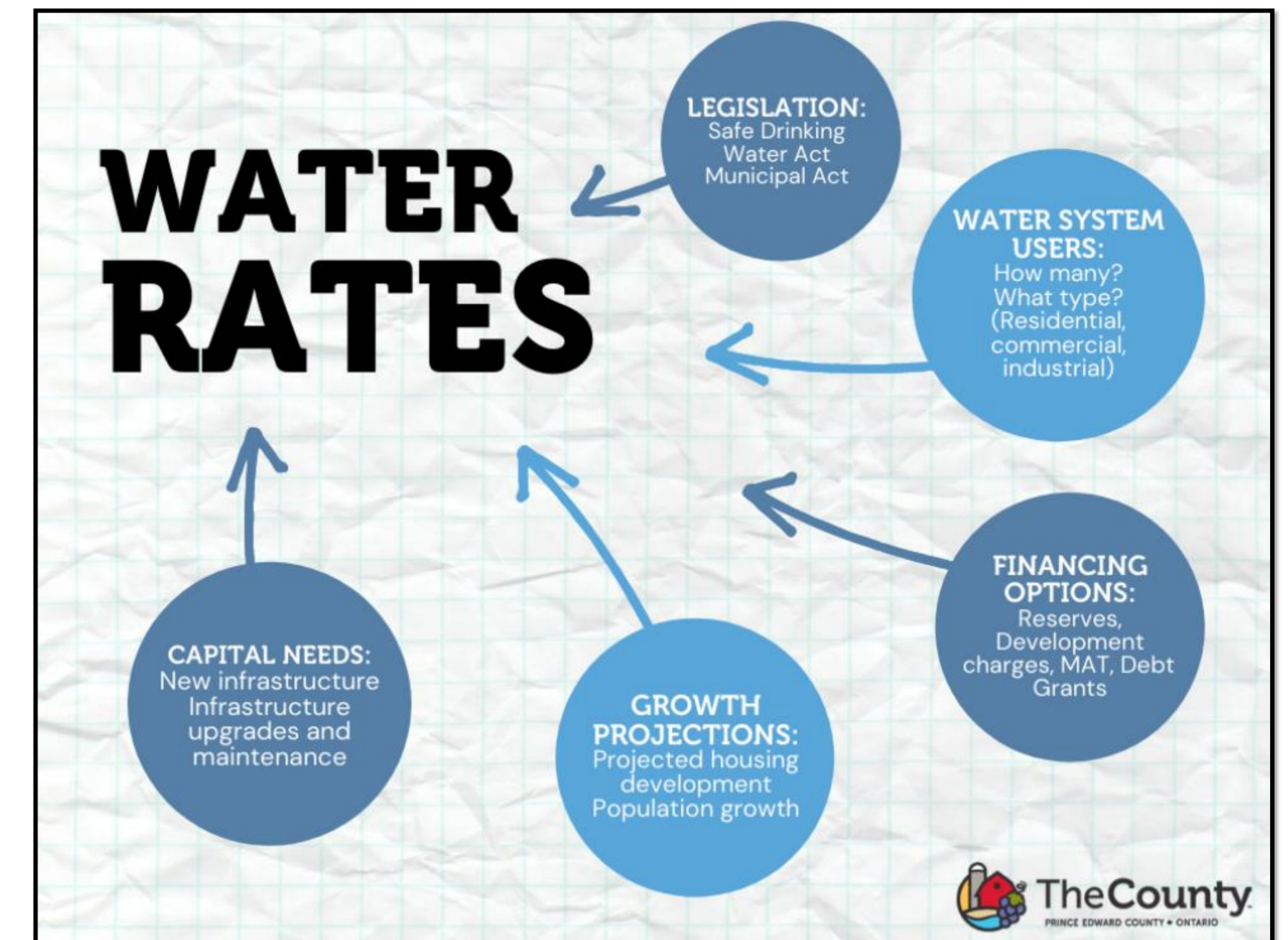
SERVICE	RESIDENTIAL						NON-RESIDENTIAL
	Single and Semi-Detached Dwelling (> 2 bedrooms)	Single and Semi-Detached Dwelling (=<2 bedrooms)	Apartments 2 Bedrooms+	Apartments Bachelor & 1 Bedroom	Other Multiples (> 2 bedrooms)	Other Multiples (=<2 bedrooms)	(per ftz of Gross Floor Area)
Water Services	16,982.00	11,738.00	9,653.00	6,918.00	11,960.00	9,387.00	30.98
Wastewater Services	10,261.00	7,092.00	5,832.00	4,179.00	7,226.00	5,672.00	13.40
Totals	27,243.00	18,830.00	15,485.00	11,097.00	19,186.00	15,059.00	44.38

Development Charges Pre-Payment Agreement

- Developer pre-pays the DCs at the draft subdivision approval stage rather than when building permits are issued. Also referred to as a Front End Financing Agreement.
- This tool allows the County to fund infrastructure projects without relying on revenue from water/wastewater user rates until development reaches building permits.
- Currently, the County has negotiated two upfront financing agreements in Wellington. A single developer has since taken over both development projects.
- Financial securities are also part of the front end financing agreements. In the event a development laid dormant, the securities would be used to fund the growth portion of the infrastructure debt.
- Securities are in the amount of 20% of total development charges payable by the developer. Currently the County holds approximately \$4.5M in securities for Wellington.

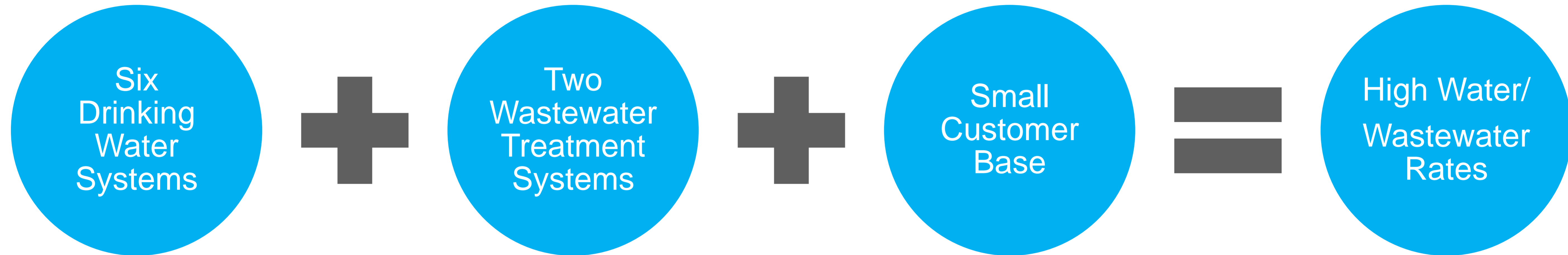
Water and Wastewater Rates

- Water and wastewater rates for the period 2022-2026 were approved through by-law at the December 14, 2021 meeting of Council.
- Rates are approved by Council every five years.
- Staff undertook public consultation (Have Your Say) on four different potential water rate scenarios.
- Rates for this current period include Wellington infrastructure identified in MSP (Water Tower, EQ Tank, Trunk Mains, and Phase 1 of new WTP and WWTP).
- Water and Wastewater Rates Community Working Group coming fall, 2023 (members include Mayor, two Councillors and six public representatives). Committee will give rate payers a voice for the next rate study.
- County working to stabilize rates for next five-year rate study.
- Regional Water Supply Servicing Master Plan underway aimed to maximize synergies and take advantage of growth contributions where possible.



Water and Wastewater Rates

Current Scenario:



Limit Growth Scenario:

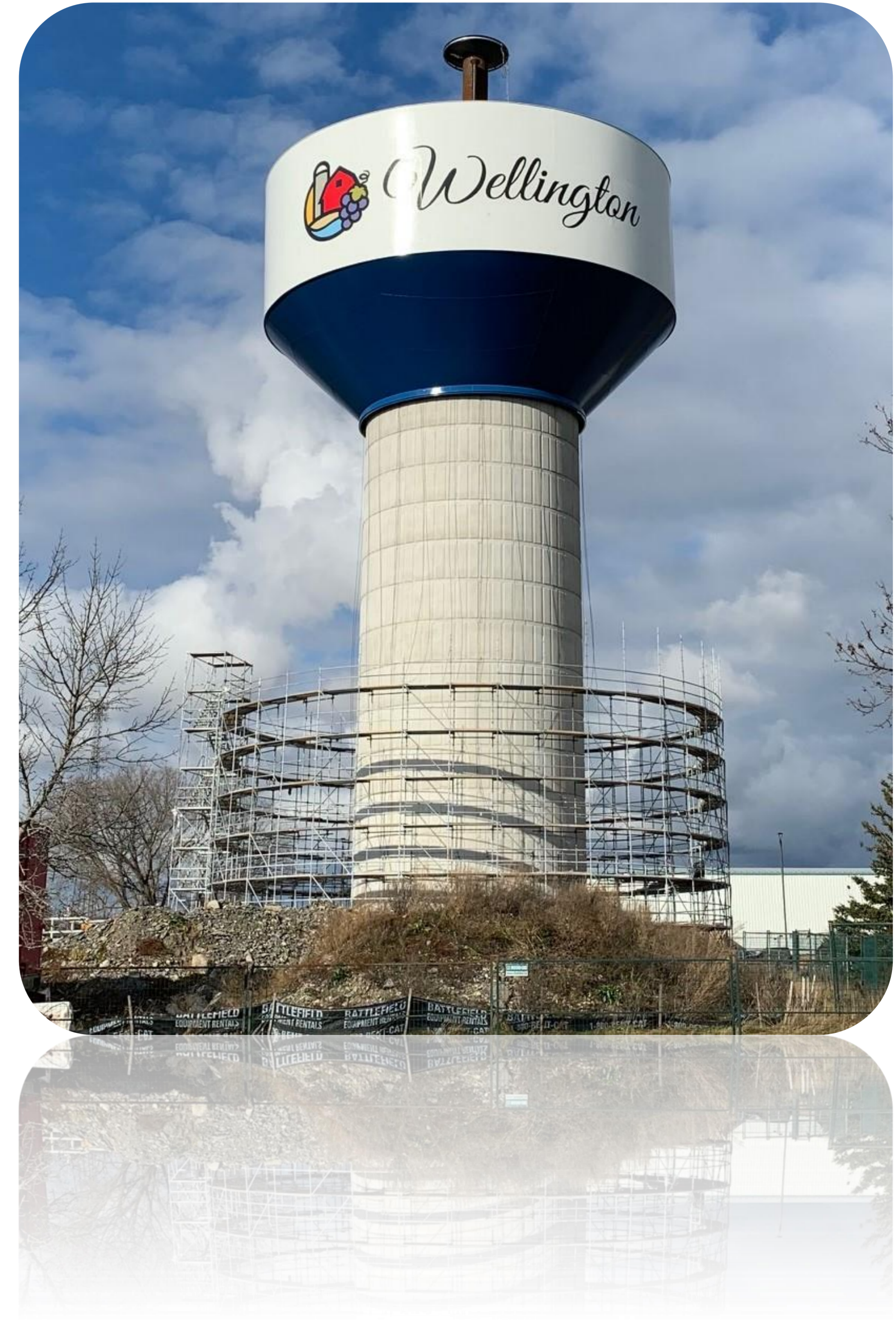
- Limit development within urban areas (legal risks)
- Majority of water/wastewater infrastructure is aging and requires replacement or significant upgrades (capacity/size likely to be smaller due to small customer base)
- Limiting growth means the existing small customer base will be responsible for most of the infrastructure costs so rates are likely to remain high or increase to fund future infrastructure projects

Support Growth Scenario:

- Support development within urban areas
- Majority of water/wastewater infrastructure is aging and has insufficient capacity so requires replacement or significant upgrades (capacity/size likely to be larger due to increased customer base)
- Supporting growth means most infrastructure costs shall be funded by DCs and the remaining costs shall be responsibility of much larger customer base so the rates are likely to remain stable while funding future infrastructure projects

Wellington Elevated Water Storage Tank

- Schedule 'B' MCEA project. Moved directly to design and construction after completion of MSP.
- Construction awarded by Council in March of 2022 and completion scheduled for fall of 2023.
- Funded 62% by Development Charges and 38% by existing users.
- Capacity sufficient to service population to approximately 20-25 year horizon.



Wellington WWTP Equalization Tank

- Schedule 'B' MCEA project. Moved directly to design and construction after completion of MSP.
- Construction awarded by Council in September of 2022 and completion scheduled for fall of 2023.
- Funded 72% by Development Charges and 28% by existing users.
- Ability to be repurposed in future as treatment tanks in new WWTP.



Wellington Trunk Watermain, Sanitary Sewer and Pumping Station

- Schedule 'B' MCEA project. Moved directly to design and construction after completion of MSP. Addendum required to MSP for proposed pumping station.
- Detailed design ongoing and tender for construction to be issued in fall of 2023. Pumping station to be tendered by winter of 2024.
- Trunk watermain funded 82% by Development Charges and 18% by existing users.
- Trunk sanitary sewer funded 100% by Development Charges.
- Public Consultation Centre scheduled for September 7 from 6-8pm at WDCC.

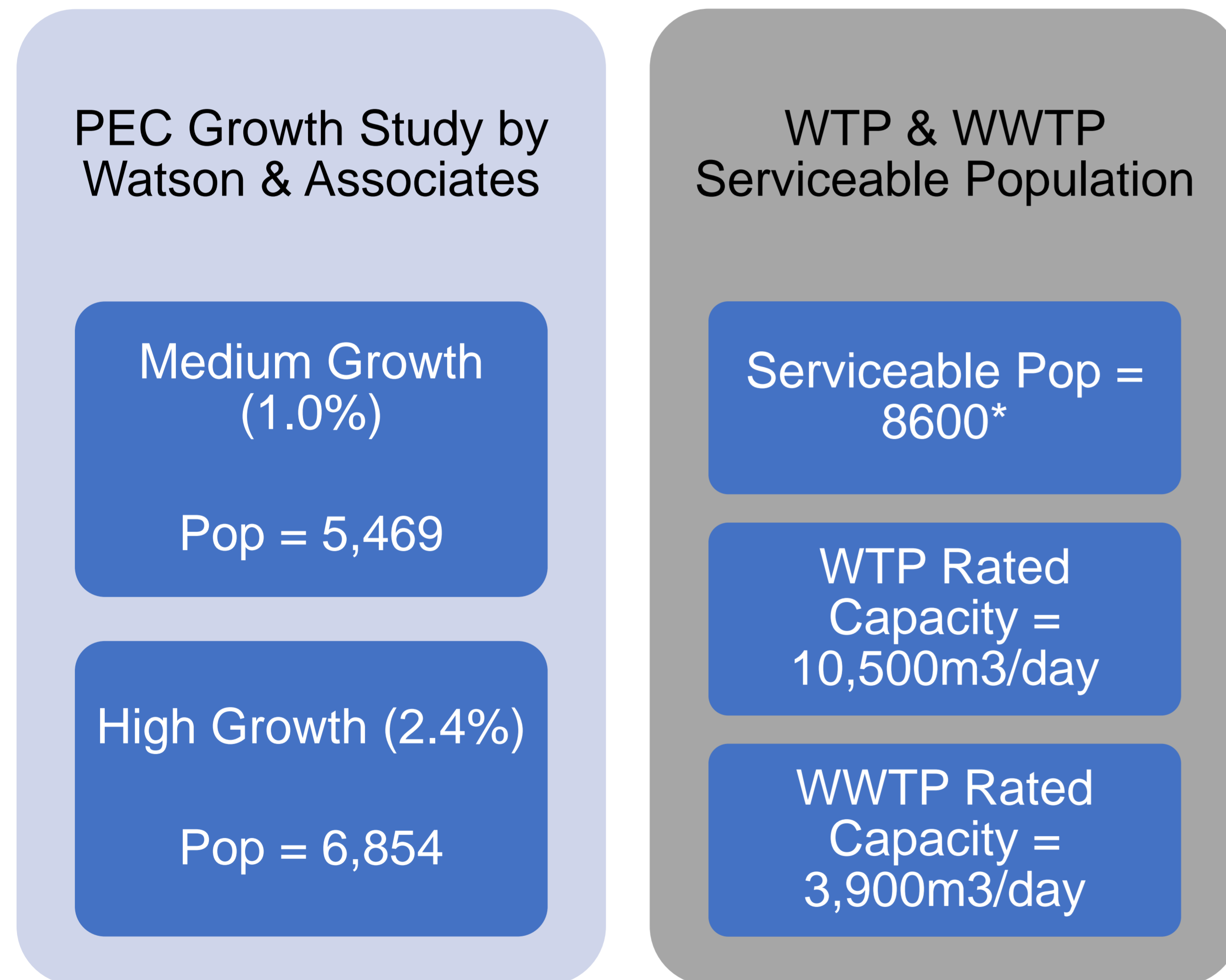


New Wellington Water & Wastewater Treatment Plants (WTP and WWTP)

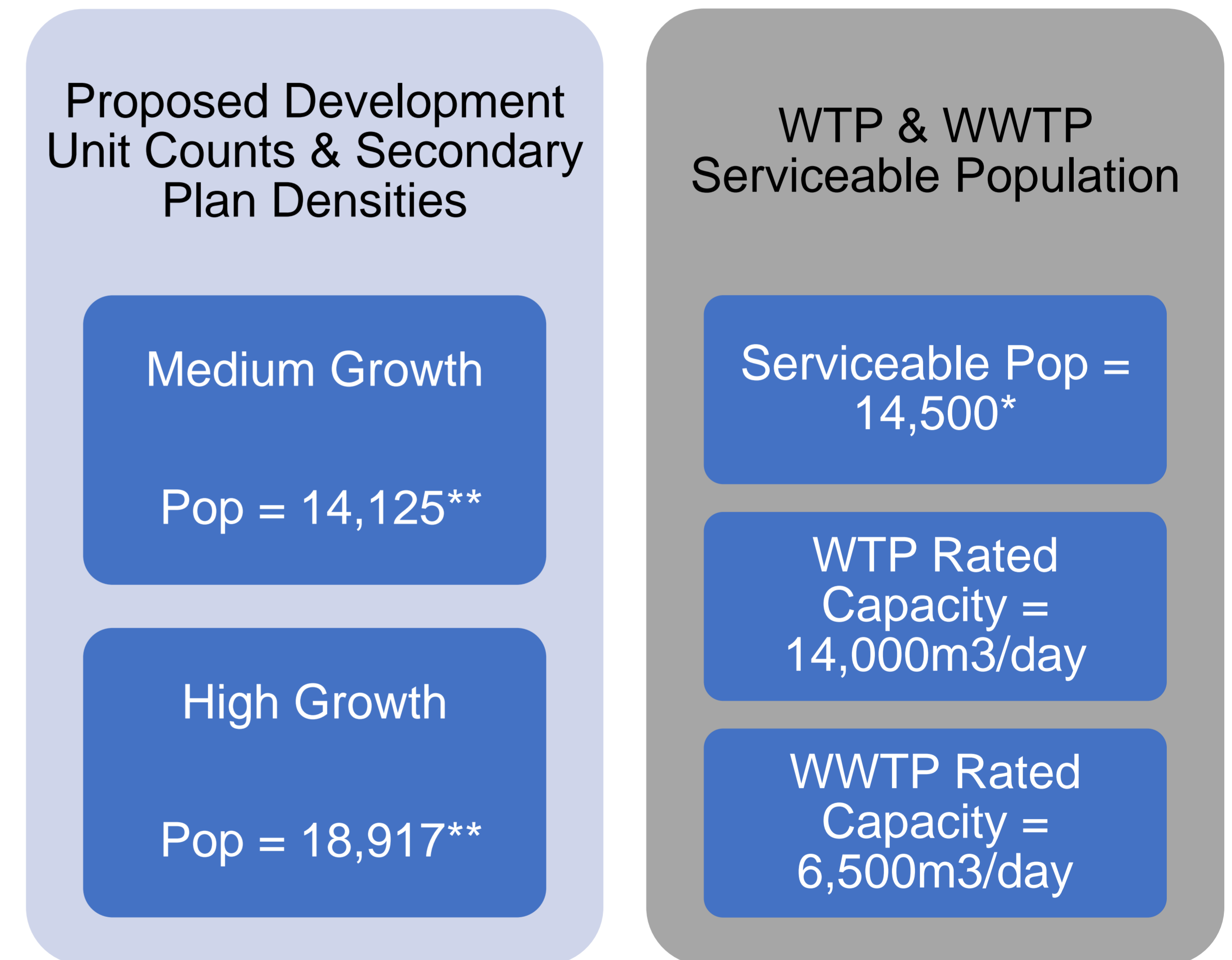
- Required completion of Schedule 'C' MCEA study following completion of MSP. Objective of Schedule 'C' study is to determine preferred treatment technology.
- Public Information Centre (PIC) held on June 28, 2023.
- Membrane Filtration identified as preliminary preferred treatment technology for WTP. To be confirmed through ESR.
- Aerobic Granular Sludge and Disc Filters identified as preliminary preferred treatment technology for WWTP. To be confirmed through ESR.
- Treatment plants to be constructed in two phases. Phase 1 to service 2047 population projections and Phase 2 to service population of full buildout of urban boundary.
- Next steps: summarize study findings and final recommendations, document PIC comments and post Final Environmental Study Report (ESR) for 30-day public review period. 30-day review period tentatively scheduled for fall of 2023.
- Following public review period, issue Request for Proposals for detailed design services (will require Council award).

New Wellington WTP and WWTP – Plant Capacity Phasing

25 Year (2047) Population Projections – Phase 1



Buildout Population Projections – Phase 2

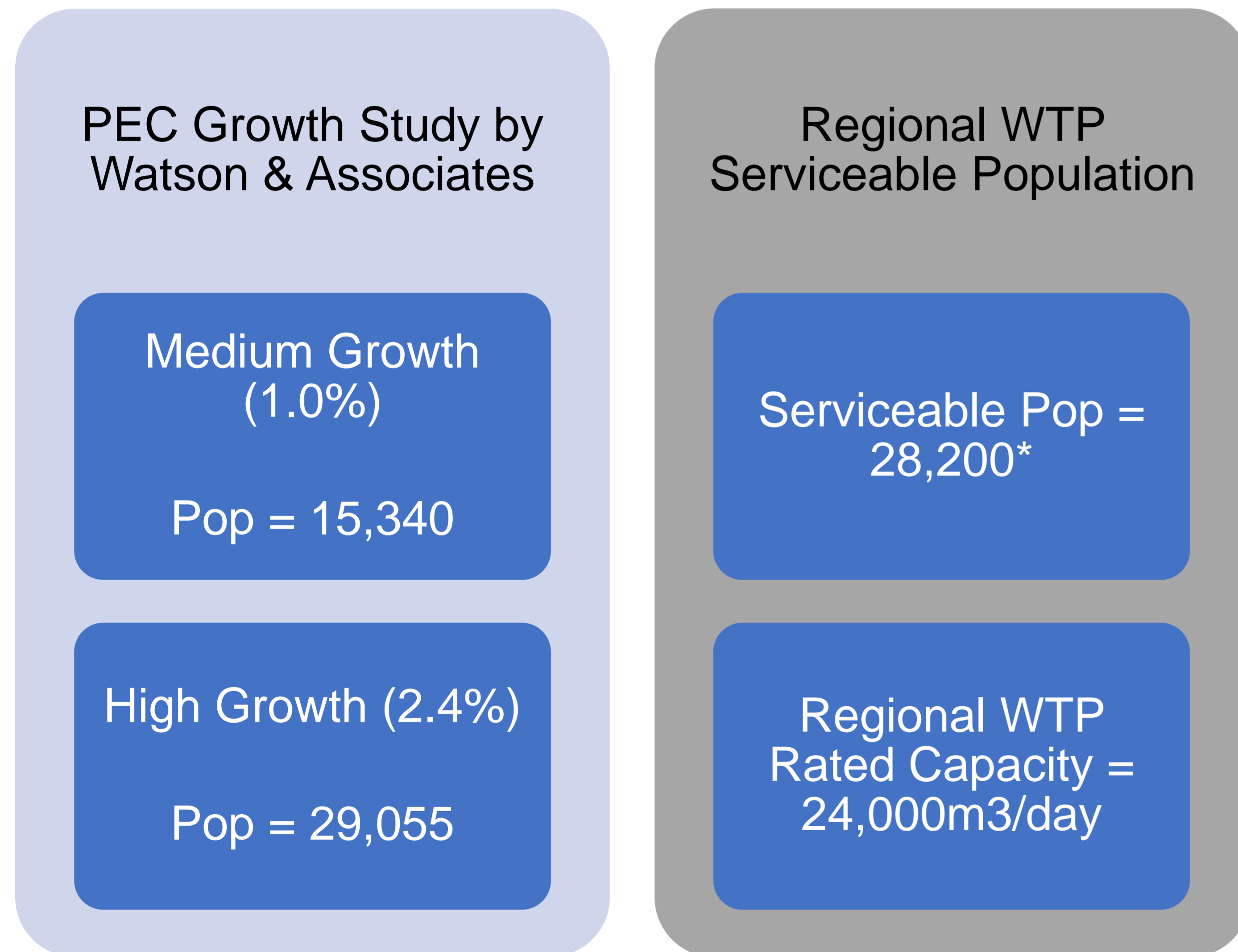


*Serviceable population refers to the population that could be serviced by a treatment plant of a specified size/capacity not including required plant redundancy. Serviceable population may vary depending on factors such as number of people per unit and water consumption rates or wastewater flow rates.

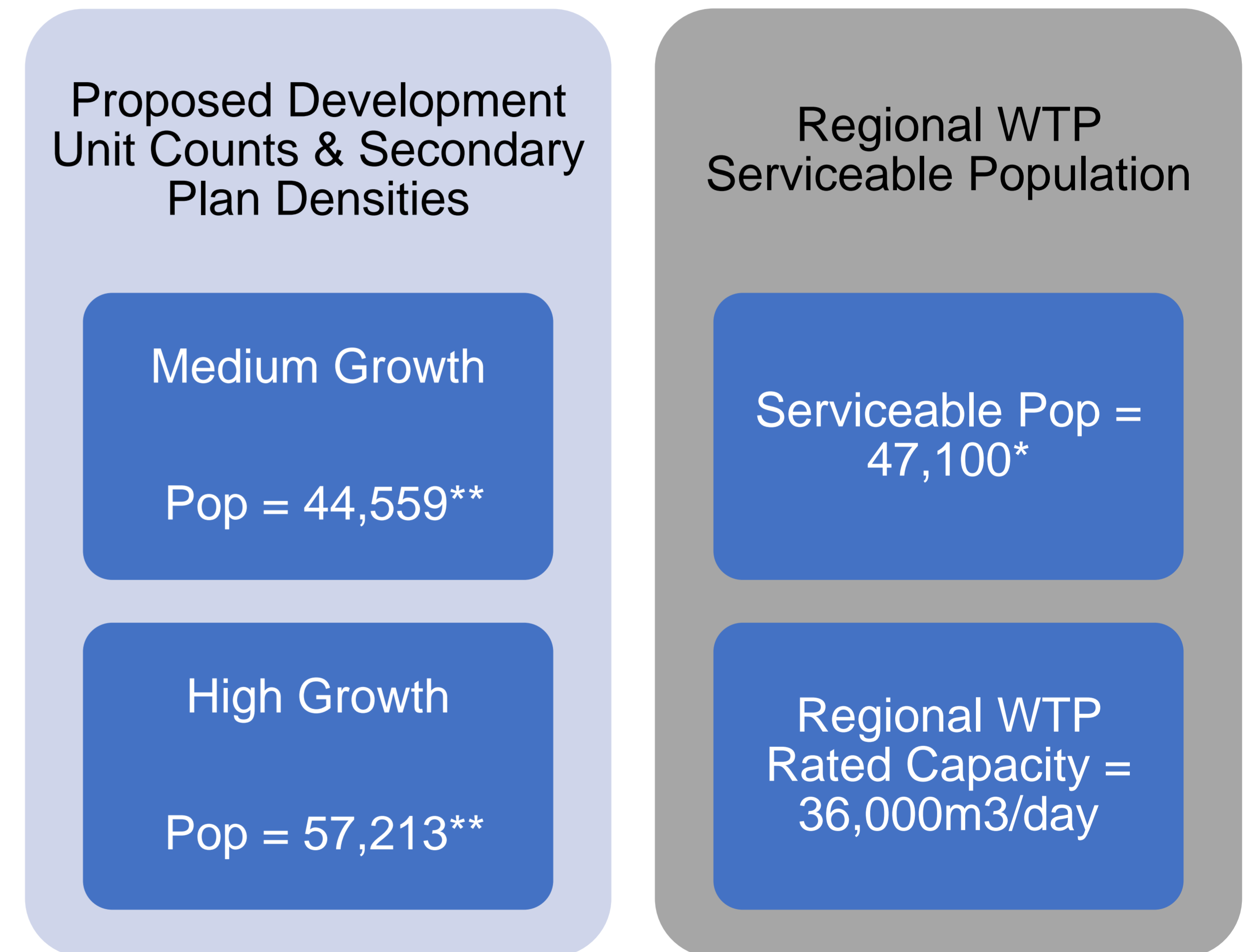
**Buildout population projections are based on unit counts from active development applications and Secondary Plan densities for other lands within the urban boundary not associated with any current proposals.

Regional Option for Wellington WTP – Plant Capacity Phasing (Wellington, Picton and Bloomfield)

25 Year (2047) Population Projections – Phase 1



Buildout Population Projections – Phase 2



*Serviceable population refers to the population that could be serviced by a treatment plant of a specified size/capacity not including required plant redundancy. Serviceable population may vary depending on factors such as number of people per unit and water consumption rates or wastewater flow rates.

**Buildout population projections are based on unit counts from active development applications and Secondary Plan densities for other lands within the urban boundary not associated with any current proposals.

Sizing and Phasing of Treatment Equipment

Treatment equipment (or trains) have been sized for conceptual purposes, actual sizing and phasing shall be determined during detailed design

Wellington Water Treatment Plant

- Phase 1 (2047) rated capacity = 10,500m³/day
 - 3 treatment trains (or filters) each with capacity of 3,500m³/day
- Phase 2 (buildout) rated capacity = 14,000m³/day
 - 1 additional treatment train (or filter) with capacity of 3,500m³/day

Wellington Regional Water Treatment Plant

- Phase 1 (2047) rated capacity = 24,000m³/day
 - 4 treatment trains (or filters) each with capacity of 6,000m³/day
- Phase 2 (buildout) rated capacity = 36,000m³/day
 - 2 additional treatment trains (or filters) each with capacity of 6,000m³/day

Wellington Wastewater Treatment Plant

- Phase 1 (2047) rated capacity = 3,900m³/day
 - 2 treatment tanks each with capacity of 1,950m³/day
- Phase 2 (buildout) rated capacity = 6,500m³/day
 - 2 additional treatment tanks with capacity of 1,300m³/day

WTP (Phase 1) Rated Capacity = 10,500m³/day

3 trains @ 3,500m³/day

Rated Capacity depends on all treatment equipment operating 24/7. Not sustainable.

WTP (Phase 1) Effective Sustainable Capacity = 7,000m³/day

2 trains @ 3,500m³/day & 3rd train for redundancy

Effective Sustainable Capacity accounts for regular or unplanned maintenance. This approach applies to both the water and wastewater treatment plants.