CITY OF VAUGHAN INTEGRATED URBAN WATER PLAN

Water, Wastewater and Stormwater Servicing Strategy

Appendix 5 Population Forecast

Final Report

June 2024

CLASS EA REPORT

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1.0 Future Population

1.1 Background

The analysis for forecasted population growth in the City of Vaughan (the City) is based on regional and municipal planning documents such as Official Plan 2010 (OP 2010), Secondary Plans, inputs from the planning department, Major Transit Station Areas (MTSA) background data, and York Region 2051 Designated Greenfield Area (DGA) Density Targets.

The following are the areas for future population analysis:

1. Secondary Plan Areas
2. MTSA Areas
3. Intensification Corridors
4. Interim Serivicing Strategy (ISS) Areas
5. Ministerial Zoning Orders (MZOs)
6. Employment Conversion Requests
7. Residential Areas Outside of the Intensification Boundaries
8. Non-Residential Areas Outside of the Intensification Boundaries
9. Properties on Private System
10. Properties on City Boundaries that are currently connected to neighbouring municipalities
11. White Belt

1.2 Population Forecast

To phase the water and wastewater servicing plans in stages, an interim condition population was assumed as follows:

- Existing base population is 2019
- The time horizons for the study are Existing, 2028, 2036, 2041, and 2051(Ultimate)
- Existing development applications are assumed to be occupied by 2028.
- All areas excluding White Belts, achieve the ultimate population by 2041. White Belt are Population is forecast for 2051.
- All areas with no development application assumed linear population growth as per Table 1-1.

Table 1-1: Linear Population Growth for All Areas Assuming No New Development Application.

Year	2019	2028	2036	2041	2051
Percentage Growth Towards Ultimate Population	0%	41%	77%	100%	100%

1.3 City Wide Population Forecast

The City Wide 2051 population was based on the Region's 2051 Ultimate Population targets and is presented in Table 1-2.

Table 1-2. City Wide Population Projection

	2019	2028	2036	2041	2051
City Wide Population Forecast(Residential + Employment)	637,266	1,024,872	1,207,287	1,318,221	1,383,127
Population Growth (Year/Previous Year)	-	61%	18%	9%	5%

1.4 Secondary Plan Areas Defining Functional Servicing Strategy Report Scope

The Functional Servicing Strategies (FSSR's) that are prepared for this study are based on the 11 secondary planning areas grouped in the following Table 1-3. These population forecasts were based on information available in the Secondary Plans and/or consultation with the City's Policy Planning department. As each FSSR is comprised of various planning and population forecast drivers, the details of the various population forecasts based on the specific driver are detailed further in the report. Note that the information in Table 1-3 has been applied to the model development and hydraulic analysis and is intended to represent a conservative forecast to ensure that infrastructure needs are sufficient for anticipated growth. Where populations do not necessarily align with other specific or aggregated data, the table will be referenced as the most accurate.

Table 1-3 FSSR Areas Population Summaries

FSSR Area		Total Population Number By Time Horizon				
		Existing	2028	2031	2041	2051
1	Concord Go Centre and Dufferin and Centre Street	7,621	32,442	51,289	63,325	63,325
2	Maple Go Station	2,091	5,515	6,488	7,110	7,110
3	Promenade Centre	15,368	26,757	31,967	35,643	35,643
4	Steeles West	2,155	7,239	12,456	15,533	15,533
5	Vaughan Metropolitan Centre	12,620	111,043	172,798	194,886	194,886
6	Weston and Highway 7	12,036	39,852	65,418	81,749	81,749
7	Carrville Centre	339	6,736	12,644	16,418	16,418
8	Rutherford Go Station	1,366	3,516	4,597	5,288	5,288
9	Vaughan Mills	7,260	34,519	39,904	43,343	43,343
10	Woodbridge Centre	11,314	16,381	18,797	20,340	20,340
11	Yonge and Steeles Corridor	4,944	22,675	33,507	46,195	46,195
	North Area White Belt (Modelled in City Wide)					54,043
	West Area White Belt (Modelled in City Wide)					31,102
Total		77,114	306,675	449,865	529,830	614,975

1.5 Major Transit Station Areas (MTSA)

Population was estimated for MTSA's by applying a growth factor that meets the minimum population provided by the City's Policy Planning (160 people / ha). Should MTSA's share a boundary with a Secondary Plan, Ministrial Zoning Corridors (MZO), or other areas, the maximum population density is used. The population summary is presented in Table 1-5.

Table 1-4: Population Projection for MTSA Areas

Index	MTSA Area	Area (ha)	Population Projection				Density (ppl/ha)
			2028	2036	2041	2051	
MT1	Ansley Grove BRT Station	47.4	8,664	13,787	17,059	17,059	360
MT2	Atkinson BRT Station	53.6	7,482	7,874	8,490	8,490	159
MT3	Bathurst-Highway 7 BRT Station	9.5	938	1,289	1,515	1,515	160
MT4	Clark Subway Station	11.1	1,640	5,150	9,606	9,606	869
MT5	Commerce BRT Station	61.9	33,154	59,257	68,776	68,776	1,111
MT6	Concord BRT Station	60.2	19,213	33,589	42,774	42,774	711
MT7	Creditstone BRT Station	34.2	13,009	22,203	25,450	25,450	744
MT8	Disera-Promenade BRT Station	57.5	16,678	20,499	22,920	22,920	399
MT9	Dufferin BRT Station	17.5	6,493	7,661	8,404	8,404	480
MT10	Highway 407 Subway Station	12.1	2,958	2,958	2,958	2,958	244
MT11	Keele BRT Station	55.9	11,993	19,901	24,953	24,953	447
MT12	Kirby GO Station	62.5	9,781	18,369	23,856	23,856	382
MT13	Langstaff-Longbridge Subway Station	5.1	501	848	1,004	1,004	195
MT14	Maple GO Station	33.5	9,228	13,041	15,476	15,476	463
MT15	Pine Valley BRT Station	37.6	7,712	12,322	15,267	15,267	406
MT16	Pioneer Village Subway Station	39.2	7,239	12,456	15,533	15,533	397
MT17	Royal Orchard Subway	8.2	1,245	2,269	2,791	2,791	339
MT18	Rutherford GO Station	31.1	2,546	4,024	4,968	4,968	160
MT19	Steeles Subway Station	31.2	18,545	22,834	28,276	28,276	906
MT20	Taiga BRT Station	22.4	2,477	3,426	4,032	4,032	180
MT21	Vaughan Metropolitan Centre Subway Station	99.5	58,584	81,834	90,267	90,267	908
MT22	Weston BRT Station	88.3	18,074	31,116	39,448	39,448	447
MT23	Wigwoss-Helen BRT Station	26.1	9,703	15,838	19,758	19,758	757
MTSA Areas Total Population		906	267,858	412,545	493,581	493,581	

1.6 Intensification Corridors

Should the population within the intensification corridors area be less than the expected City's criteria, an additional population was distributed to meet 160 people/ha as presented in Table 1-6.

Table 1-5: Population Projection for Intensification Corridor Areas

Index	Area	Area (ha)	Population Projection With Overlay				Density (ppl/ha)
			2028	2036	2041	2051	
IC1	Centre Street	60.2	14,932	17,550	19,226	19,226	319
IC2	Highway 7	243.7	41,529	61,130	77,362	77,362	317
IC3	Jane Street	104.3	18,816	22,593	24,926	24,926	239
IC4	Major Mackenzie Drive	131.8	16,420	23,169	27,481	27,481	208
IC5	Rutherford Road	109.4	29,357	36,222	40,607	40,607	371
IC6	Steeles Avenue	109.4	16,241	20,507	24,058	24,058	220
IC7	Yonge Street	17.6	3,108	7,651	12,633	12,633	719
Total		776.4	140,403	188,822	226,293	226,293	291

1.7 Interim Servicing Strategy (ISS) Areas

Population estimated for ISS areas were based on information available from Secondary Plan, active development application and information provided by the City and are presented in Table 1-7.

Table 1-6: Population Projection for ISS Areas

Index	ISS Areas	Population Projection			
		2028	2036	2041	2051
IS1	Block 13N	2,854	2,854	2,854	2,854
IS2	Block 27	8,405	15,785	20,500	20,500
IS3	Block 34E	7,024	9,271	10,706	10,706
IS4	Block 34W	3,146	3,146	3,146	3,146
IS5	Block 35E	5,931	10,582	13,553	13,553
IS6	Block 35W	3,336	6,265	8,136	8,136
IS7	Block 41	14,514	14,712	14,771	14,771
IS8	Block 59	9,238	9,238	9,238	9,238
IS9	Block 60E	4,866	4,866	4,866	4,866
IS10	Block 60W	6,515	6,515	6,515	6,515
IS11	Block 62W	4,370	4,370	4,370	4,370
IS12	Board of Trade GC	4,354	4,354	4,354	4,354
IS13	Gemini	948	948	948	948
IS14	Kirby & Copper Creek	3,029	3,029	3,029	3,029
	Total ISS Population	78,530	95,935	106,986	106,986

1.8 Ministerial Zoning Orders (MZOs)

Population estimated for MZOs were based on information provided by the Province. Where data was not available, conservative population estimates were being made based on available information provided by the City and summarized in Table 1-8.

Table 1-7: Population Projection for MZO Areas

Index	MZO Areas	Population Projection			
		2028	2036	2041	2051
MZ1	Map 250 - Jane and Rutherford	10,065	10,065	10,065	10,065
MZ2	MZO 445/20 Martin Grove and Highway 407	167	314	407	407
MZ3	Map 249 - Block 41	14,514	14,514	14,514	14,514
MZ4	Portage and Highway 400 DA.19.030	613	613	613	613
MZ5	MZO 173/20 Conmar/Fenlands	4,465	4,465	4,465	4,465
MZ6	Minister's Order	2,854	2,854	2,854	2,854
MZ7	Map 260 - Part of Lots 6 & 7, Concession 3	12,723	22,914	29,425	29,425
	MZO Total Population	45,401	55,739	62,343	62,343

1.9 Employment Conversion Requests

Employment Conversion Requests were made for developments that were initially intended for industrial, commercial and institutional land use. The developer is required to seek Regional approval for land-use

changes to residential or mixed residential requests. Population estimated for approved and pending employment conversion requests follow the new land use criteria as follow:

- Population density of 160 people/ha for the areas inside of Secondary Plan and MTSA boundaries.
- Population density of 70 people/ha for the areas outside of intensification areas.

The following Table 1-9 summarizes the impact of employment conversion to residential use.

Table 1-8: Population Projection for Employment Conversion Areas

Area	Area (ha)	Population Projection				Density (ppl/ha)
		2028	2036	2041	2051	
Employment Conversion Areas	404.2	30,641	50,338	68,231	68,231	169

1.10 Residential Areas Outside of the Intensification Boundaries

Residential population growth outside of the intensification areas was considered to account for basement apartments and other general intensification opportunities in existing residential units. As per the City, it is anticipated that 10% of the single and semi-detached homes will have additional residents in their basement apartments at 2 persons per apartment. As such, the population density per unit for these areas were increased by 0.2 (10% x 2) person per unit (from 4 to 4.2 persons per unit).

1.11 Non-Residential Areas Outside of the Intensification Boundaries

Population growth was not considered for non-residential areas outside of the intensification boundaries.

1.12 Properties on Private Systems

As per the City's population density criteria, there are 3,053 people who are currently on septic systems. It is assumed that all these private systems will be upgraded with municipal sewer servicing by 2041 and the conversion will happen gradually following the rate illustrated in Table 1-10. Properties on private well supply for potable water are not considered for future municipal servicing.

Table 1-9: Population Projection for Properties on Private Septic Systems

Area	Population Projection			
	2028	2036	2041	2051
Septic Systems converted to Municipal (Cumulative)	1,338	2,513	3,264	3,264

1.13 Properties on City Boundaries

This category represents a few properties that are physically located within the City but are currently connected to neighboring municipalities due to the proximity to sanitary sewer systems. To be conservative, this study assumes these properties will be reconnected to Vaughan sewer system by 2028. The population estimate for properties on the City boundaries was based on the City's standard population design criteria and are presented in Table 1-11.

Table 1-10: Population Projection for Properties on City Boundaries

Area	Population Projection			
	2028	2036	2041	2051
City Boundary Areas	6,773	6,773	6,773	6,773

1.14 White Belt Areas

Population estimated for White Belt areas were added for the scenario beyond 2041 following the realization of future development plans and servicing infrastructure plans. Population density of 70 residents and jobs per hectare was applied as per the Region's 2051 DGA Density Targets. Population growth was not considered prior to the year 2041. The forecast population is presented in Table 1-12.

Table 1-11: Population Projection for White Belt Areas

Area	Population Projection			
	2028	2036	2041	2051
White Belt Areas	0	0	0	85,145