

MEMORANDUM

To: Greg Bowie, Community Planning & Development Services, Niagara Region

From: Russell Mathew, Hemson Consulting

Date: April 5, 2021

Re: Niagara Region Municipal Comprehensive Review – Growth Allocation Update to 2051

Hemson Consulting has provided support to staff from the Region of Niagara in the preparation of various phases of the development of a Municipal Comprehensive Review (MCR) originally designed to bring the Regional Official Plan into conformity with the *Growth Plan, 2006* with a 2041 planning horizon. Once the *Growth Plan, 2017* came into force with its new policies, the *Niagara 2041* MCR process shifted to the new planning regime including the preparation of population, housing and employment forecasts for the Region and constituent municipalities. Hemson provided this Phase 4 work to Regional staff in July 2018.

Regional staff then prepared a Land Needs Assessment in accordance with the *Land Needs Assessment Methodology for the Greater Golden Horseshoe* (LNA). Municipalities across the *Greater Golden Horseshoe* (GGH) are required to apply this methodology in assessing the need for lands to accommodate growth consistent with growth management policy and targets found in the *Growth Plan, 2017*. In May 2019, the Province released *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (the *Growth Plan, 2019*) which amended a number of policy targets that affect the Region of Niagara's LNA work. Significant adjustments were made to the intensification target, for development within Delineated Built-Up Areas (BUA), as well as the density targets for new Designated Greenfield Areas (DGA) and for Employment Areas. The planning horizon remained at 2041.

In September 2019, Hemson Consulting provided an update to the forecast allocations for the MCR based on the policy changes in the *Growth Plan, 2019*, and the implications these changes could have to the LNA. This effort confirmed the population and housing allocations to 2041 and revised the employment forecast based on important findings arising from the Niagara Employment Inventory survey. More recently, Hemson Consulting has been retained by the Region of Niagara to update our previous work on the growth outlook for Niagara Region and extend the forecast horizon to 2051, to be consistent with the revised forecast schedule of the *Growth Plan, 2019*.

A. THE FORECAST HORIZON HAS BEEN EXTENDED TO 2051

In August 2020, the Province amended the *Growth Plan, 2019* by incorporating a new Schedule 3 growth forecast and extending the planning horizon to 2051. Additionally, the LNA Methodology has been revised requiring municipalities to address a market-

based supply of housing and its relationship to the planned housing mix that will be determined through an MCR. Upper and single-tier municipalities throughout the GGH have until mid-2022 to complete an MCR and incorporate the new Schedule 3 outlook for growth in their official plans. The Region of Niagara is well positioned to meet this deadline with the advance work completed to date for the 2041 MCR including the LNA. This memorandum represents an update to the current regional forecast and the allocation reflecting the principles of the *Niagara 2041* Strategic Growth Option population and employment allocation. This Preferred Growth Option population and employment allocation uses the new Schedule 3 forecasts with planning horizon extended to 2051.

For Niagara Region, the new Growth Plan Schedule 3 forecast means the Regional Official Plan must incorporate a population of 674,000 in 2051 (replacing the 2041 total of 611,000) and a total employment base of 272,000 jobs at 2051 (replacing the previous forecast of 267,000 jobs at 2041).

Summary tables in the remainder of this memorandum provide the household, housing by type, population and employment by type forecast and municipal allocation to 2051 by municipality and by *Growth Plan* policy area.

B. ADJUSTING THE FORECAST BASE YEAR TO 2021

Niagara Region must bring the official plan into conformity with the *Growth Plan*, 2019 by mid-2022. Much of the work done to date on Niagara 2041 has used 2016 as the base year for the forecast, LNA and policy analyses, aligning with the quinquennial Census. However, with 2021 being a Census year and the MCR completed by mid-2022 for submission to the Province, it is likely that most municipalities, including Niagara will shift to a new 2021 base year, resulting in an even 30-year planning period to 2051. To this end, all of the population housing and employment forecasts and allocations in this memorandum provide both a 2016 base and a 2021 (estimated) base year. Even though mid-2021 is in the (near) future, it is described as an estimate rather than a forecast because most associated statistics can be estimated with a much higher level of accuracy than a more distant forecast year. In housing, for example, all new housing units that will be added to the housing stock during the 2016 to 2021 period are completed or currently under construction as of late fall of 2020. Specifically, total occupied dwelling units from the 2016 Census are updated to 2021 by adding post-mid-2016 newly completed units and construction in-progress to estimate total occupied dwelling Units for 2021 along with Total Population for 2021, by municipality (Table 1). Total Population includes Census net undercoverage.

When adjusting the base for the forecast to 2021, it was noted that there has been an exceptional take up of housing in Thorold with the share of new units for the 2016-2021 period now estimated at 14.2% of Regional housing growth; this is up from the 11.3% share that had been applied in the 2018 update. These recent housing market shifts, the largest happens to be in Thorold, but occurring less dramatically in a number of other communities, are part of the basis for adjustments to the allocation of growth to the local municipalities; this is described in more detail below along with Table 5.

Table 1

2016 and 2021 Estimated Occupied Housing Units and Population by Local Municipality									
Municipality	Total Population (including Census Net Undercoverage)				Total Occupied Dwelling Units (Households)				
	2016	2021	2016 2021 Growth	Growth Rate	2016	2021	2016 2021 Growth	Growth Rate	Share of Growth
Fort Erie	31,490	33,910	2,420	1.5%	13,180	14,150	970	1.4%	7.8%
Grimsby	28,010	30,280	2,270	1.6%	10,380	11,470	1,090	2.0%	8.7%
Lincoln	24,390	26,700	2,310	1.8%	8,710	9,590	880	1.9%	7.1%
Niagara Falls	90,310	97,520	7,210	1.5%	35,760	38,520	2,760	1.5%	22.1%
Niagara-on the Lake	17,960	19,930	1,970	2.1%	7,090	7,910	820	2.2%	6.6%
Pelham	17,540	19,370	1,830	2.0%	6,475	7,150	675	2.0%	5.4%
Port Colborne	18,770	19,300	530	0.6%	8,015	8,210	195	0.5%	1.6%
St. Catharines	136,490	140,530	4,040	0.6%	56,880	58,550	1,670	0.6%	13.4%
Thorold	19,280	24,160	4,880	4.6%	7,460	9,230	1,770	4.4%	14.2%
Wainfleet	6,530	7,020	490	1.5%	2,415	2,580	165	1.3%	1.3%
Welland	53,620	56,450	2,830	1.0%	22,490	23,610	1,120	1.0%	9.0%
West Lincoln	14,870	15,980	1,110	1.5%	4,965	5,330	365	1.4%	2.9%
Niagara Region	459,260	491,150	31,890	1.4%	183,820	196,300	12,480	1.3%	100.0%

Source: Population and housing data to 2016 from Statistics Canada Census and housing growth based, in part, on CMHC Housing Information.

C. HOUSING FORECAST TO 2051 BEGINS WITH A “MARKET-BASED” DEMAND FOR HOUSING

In keeping with the policy changes introduced to the *Growth Plan* in 2019 and the *Provincial Policy Statement* (PPS), 2020 the updated LNA now requires the Region to address a market-based housing mix and its relationship to the planned housing mix for long-term planning in Niagara Region. The Province’s intention in referencing market housing in the LNA and codifying it in the PPS is understood to be addressing a concern that municipalities may not be planning for a sufficient supply of ground-related housing to 2051. A perceived municipal rush to plan for higher levels of intensification and multiple higher-density mixed-use nodes and corridors, is seen by some as being at the expense of providing greenfield development lands. Intensification and mixed-use areas are typically mostly apartment housing, while the greenfield areas meet the demand for single, semi and row housing from (mostly) family households. At the same time, it is the *Growth Plan* that sets out the policies favouring intensification, more higher-density mixed-use development and reduced consumption of greenfield land.

Our approach to addressing the market-based demand requirement is to compare a regional market-based demand forecast to a policy-based housing allocation approach to determine how well the mix of housing types is aligned. The first forecast is prepared in accordance with the LNA. The second approach would typically involve undertaking the forecast and municipal allocation portion of the MCR, according to the policies for the Delineated Built-Up Area (BUA) and the Designated Greenfield Area (DGA). To implement the policies of the *Growth Plan* through the MCR, as well as comply with the LNA, both analyses use housing units by structure type. Once the market forecast and the policy-based allocation are completed, the two are compared and, if the housing mix in each are similar, in our view, nothing further need be done. If there were a wide difference, then, at minimum, Council would need to be clearly aware of how significant

a shift in housing market pattern is required to meet policy goals. Alternatively, policies or targets could be reconsidered to bring a better alignment between anticipated market demand and achieving *Growth Plan* policy. However, the analysis in Niagara Region did not require the approach just described. As is demonstrated later in this memorandum, the market-based forecast of housing mix, or a mix quite close to it, can be achieved while meeting intensification targets consistent with the *Growth Plan*.

The residential allocation starts with a market-based housing demand forecast, consistent with the housing forecast provided in Appendix B to the report *Greater Golden Horseshoe: Growth Forecasts to 2051*. This forecast is based on applying adjusted occupancy characteristics to reflect the current and anticipated market mix of housing. The result reflects the housing mix experienced over the past 10 to 20-year period, while considering anticipated shifts in the market arising from a changing age structure. We have endeavoured to incorporate as many of the key principles of the prior 2041 Strategic Growth Option as possible in this 2051 Preferred Growth Option.

The population forecasts, consistent with Schedule 3 of the *Growth Plan* are shown in Table 2. Table 3 shows how the age of household maintainer data (headship rates) are applied to the population age structure in order to yield the forecast of total households. For those 75 years of age and older there is a very high rate of growth in households to 2051. This high growth is the demonstrable aging of population. The fast growing elderly age group is the result of the aging of the baby boom generation moving through their senior years; those born in 1959, the peak birth year of the baby boom, who survive to 2051, will be 92 years of age. The large increase in elderly households is also the result of continuous increases in life expectancy.

Table 2

Region of Niagara Population Forecast				
Historic and Forecast Population, 1986 to 2051				
Year	Census Population	Total (including Census Net Undercoverage)		
		Total	Growth	Growth Rate
1986	370,100	380,600		
1991	393,900	406,000	25,400	1.3%
1996	403,500	414,700	8,700	0.4%
2001	410,600	426,800	12,100	0.6%
2006	427,400	442,500	15,700	0.7%
2011	431,400	442,900	400	0.0%
2016	447,800	459,300	16,400	0.7%
2021	478,800	491,100	31,800	1.3%
2026	507,500	520,500	29,400	1.2%
2031	536,100	549,500	29,000	1.1%
2036	565,900	579,800	30,300	1.1%
2041	596,200	610,600	30,800	1.0%
2046	621,000	642,200	31,600	1.0%
2051	658,200	674,000	31,800	1.0%

Source: Data to 2016 from Statistics Canada Census

Table 3

2016 and 2051 Occupied Households by Age of Household Maintainer					
Age	Headship Rate	Occupied Households			
		2016	2051	2016-2051 Growth	2016-2051 Growth %
15 - 19	1.7%	430	550	120	27.9%
20 - 24	14.5%	4,000	4,920	920	23.0%
25 - 29	35.2%	8,640	12,400	3,760	43.5%
30 - 34	48.7%	11,435	17,060	5,625	49.2%
35 - 39	52.9%	12,385	18,900	6,515	52.6%
40 - 44	54.1%	13,825	19,550	5,725	41.4%
45 - 49	57.4%	16,365	21,580	5,215	31.9%
50 - 54	57.7%	19,920	24,180	4,260	21.4%
55 - 59	58.6%	20,050	25,200	5,150	25.7%
60 - 64	58.9%	18,845	24,370	5,525	29.3%
65 - 69	61.2%	18,015	24,970	6,955	38.6%
70 - 74	61.7%	13,675	23,630	9,955	72.8%
75 - 79	65.3%	10,480	23,510	13,030	124.3%
80 - 84	66.5%	8,190	21,120	12,930	157.9%
84 - 89	60.7%	5,185	15,530	10,345	199.5%
90 +	46.3%	2,390	10,730	8,340	349.0%
Total	48.2% (2016) 50.8% (2051)	183,830	288,200	104,370	56.8%

Source: Data to 2016 from Statistics Canada Census

Table 4 then provides the forecast of housing units by type using a market-based approach. In this case, the growth from 2001 to 2021 is about 78% ground-related units and 22% apartments and the forecast going forward for the next 30 years is a similar 77% ground-related housing and 23% apartments. The result is that the market-based forecast is similar going forward as to the mix of housing in the recent past, though with a somewhat higher share in apartment units. A higher share of apartments is expected given the higher occupancy of apartments among elderly households and the rapid growth anticipated in elderly-led households.

Table 4

Region of Niagara Housing Forecast: Market Based Housing Mix					
Occupied Dwelling Units by Census Structure Type					
Note: This is an initial step in the analysis and is not the concluding housing mix information in this memorandum					
Total Units					
Year	Single	Semi	Row	Apt All Types	Total
2001	114,550	8,520	7,770	31,680	162,520
2021	130,100	10,330	17,220	38,650	196,300
2051	171,910	15,420	41,110	59,760	288,200
Housing Mix of Total Units					
Year	Single	Semi	Row	Apt All Types	Total
2001	70.5%	5.2%	4.8%	19.5%	100.0%
2021	66.3%	5.3%	8.8%	19.7%	100.0%
2051	59.6%	5.4%	14.3%	20.7%	100.0%
Unit Growth					
Period	Single	Semi	Row	Apt All Types	Total
2001-06	860	280	1,730	4,110	6,980
2006-11	4,740	50	960	(570)	5,180
2011-16	3,850	760	2,590	1,960	9,140
2016-21	6,110	580	3,900	1,880	12,480
2001-2021	15,560	1,660	9,170	7,380	33,780
2021-26	8,720	920	3,320	4,110	17,060
2026-31	7,800	820	3,520	3,710	15,840
2031-36	7,360	830	3,750	3,790	15,710
2036-41	7,020	890	4,130	3,710	15,750
2041-46	5,610	800	4,330	3,140	13,870
2046-51	5,320	840	4,860	2,680	13,690
2021-2051	41,810	5,090	23,890	21,110	91,900
Housing Growth Unit Type Mix					
Period	Single	Semi	Row	Apt All Types	Total
2001-2021	46.1%	4.9%	27.1%	21.8%	100.0%
2021-2051	45.5%	5.5%	26.0%	23.0%	100.0%

Source: Data to 2016 from Statistics Canada Census

Note: For the purposes of this allocation unit types are presented as the Census housing types grouped as apartments: apartments of five or more storeys, apartments under five storeys, flat or apartment in a duplex and other single attached units.

D. HOUSING GROWTH IS ALLOCATED BY MUNICIPALITY AND POLICY AREA TO 2051

In the previous iterations of the MCR growth management work, housing shares had been allocated to municipalities based on a share assumption of the total new households in the forecast. We have updated both the 2016 to 2021 estimated shares of growth based on housing that has recently completed plus projects currently under construction (based on the assumption that any unit occupied by Census Day 2021 is already under construction).

i. Housing Allocation Assumptions Require Small Adjustments for 2021 to 2051

The review of recent construction activity shows the high share of the market that Thorold is now experiencing. The allocation shares were originally established in keeping with planned intensification rates, in addition to the observed market conditions. Table 5 contrasts the assumptions from the 2018 update to the MCR allocation with suggested assumptions for the new forecast from 2021 to 2051. These share assumptions combine the previous assumptions used for 2016-2041, recent market activity and current development expectations as well a set of adjusted rates

Table 5

Housing Allocation Assumption by Area Municipality						
2018 Allocation for 2016 to 2041 and Suggested New Assumptions for 2021 to 2051						
Municipality	Share Assumptions from 2018 Update to MCR Municipal Allocation			Suggested Share Assumptions for new 2021 to 2051 MCR Municipal Allocation		Difference in Share between previous 2016-2041 shares and suggested 2021 to 2051 share
	Estimated Share of Regional Housing Unit Growth, 2016-2021	Assumed Share of Regional Housing Unit Growth, 2021-2041	Overall Share Assumption for Regional Housing Unit Growth, 2016-2041	Estimated Share of Regional Housing Unit Growth, 2016-2021	Updated Share Assumption of Regional Housing Unit Growth for 2021-2051	
Fort Erie	7.5%	8.1%	8.0%	7.9%	8.0%	0.0%
Grimsby	9.8%	6.4%	7.0%	8.9%	5.0%	-2.0%
Lincoln	4.3%	5.2%	5.0%	7.6%	5.0%	0.0%
Niagara Falls	27.7%	21.9%	23.0%	21.2%	22.0%	-1.0%
Niagara-on the Lake	8.0%	5.4%	6.0%	6.7%	5.0%	-1.0%
Pelham	6.2%	4.7%	5.0%	5.3%	4.5%	-0.5%
Port Colborne	1.6%	2.1%	2.0%	1.4%	2.5%	0.5%
St. Catharines	12.6%	24.3%	22.0%	13.0%	21.5%	-0.5%
Thorold	11.3%	4.2%	5.5%	14.7%	7.0%	1.5%
Wainfleet	0.2%	0.6%	0.5%	1.3%	0.5%	0.0%
Welland	8.0%	8.0%	8.0%	8.2%	9.5%	1.5%
West Lincoln	2.9%	9.2%	8.0%	3.9%	9.5%	1.5%
Niagara Region	100%	100%	100%	100%	100%	0.0%

While keeping the principle of the share allocations from recent work, a few adjustments are warranted, as indicated in the last three columns in Table 5. The municipalities where the growth shares have been adjusted by more than $\pm 0.5\%$, have been adjusted for the following reasons:

- Grimsby is reduced from a 7.0% share allocation from 2016 to 2041 to a 5.0% allocation for the 2021 to 2051 period. About one-third of this change is from not including the high 8.9% 2016 to 2021 market share within the calculation. The remaining change is largely because of Grimsby's singular reliance on intensification for growth. Over the next 30 years, the "easy" intensification sites will be taken up leaving a slower long-term rate of growth as development increasingly requiring land assembly or new infrastructure slows the process.
- The rate of growth in Niagara Falls as well as its share of the Region has slowed over the past three years. As a result, Niagara Falls' share of forecast

Regional growth is marginally reduced by 1.0% to 22%, from 23%. This share still leaves the City of Niagara Falls with the largest share of new housing allocation in the Region.

- Niagara-on-the-Lake has been reduced by 1.0% from 6.0% for 2016-2041 to 5.0% for 2021-2051. Most of the change is the result of not including the higher-growth 2016-2021 period within the calculation, plus some further market change in the 2040s when the Town's available land supply will be in fewer locations and farther from Lake Ontario and Niagara River amenities.
- The share of growth allocated to St. Catharines has been changed little (reduced by a marginal 0.5%), but it is being noted here because it continues to be far short of the expected market share. The 21.5% share allocation to St. Catharines is based in large part on policies directing a significant amount of growth the City's intensification areas, particularly the Downtown St. Catharines Urban Growth Centre. The policy goal for growth is well above the City's current 13.0% share of the Niagara housing market.
- Thorold had previously been allocated a 5.5% overall share from 2016 to 2041 based mainly on its history of a relatively small share of the market despite its very large urban supply potential. In the 2018 allocation Thorold would have been allocated 11.3% of unit growth from 2016 to 2021, then decline to 4.2% for the 2021-2041 period, to end with an average share of 5.5% overall from 2016 to 2041. This appears quite unlikely from today's perspective, where Thorold is estimated to be at 14.7% of the regional market for the 2016-2021 period. We are suggesting the long-term assumption move up from 5.5% to 7.0%, the 7.0% applying to the 2021 to 2051 period.
- Welland's share of housing growth is adjusted upward from a previous 8.0% for the 2016-2041 period to 9.5% for the 2021 to 2051 period. Welland was already running ahead of 8.0% for the recent five-year period. Its share is expected to increase over time as part of the general increase in the shares to Thorold/Welland/Pelham; new greenfield lands coming on stream over the next decade; and a significant supply of intensification lands suitable for ground-related housing.
- West Lincoln appears to have a much higher share of growth, rising from 8.0% for the 2016 to 2021 period in the 2018 work to 9.5% in the 2021-2051 period. However, the difference is primarily about the 2016-2021 period not being included in the latter calculation. The 2018 analysis was based on 2.9% for 2016-2021 and then 9.2% for the 20 years from 2021 to 2041, working out to about 8.0% overall. The current allocation share does not include the low-growth 2016-2021 period, meaning the 9.5% 2021 to 2051 is very similar to the previous 9.2% for the first 20 years of the 30-year period. The growth share is low now because of new secondary plans and draft plans in the Smithville area not yet being fully approved and serviced. Once the plans and infrastructure are in place and, in the longer-term, additional lands are added to Smithville, it is very likely to achieve the high rates of growth it has in the past due to its strategic location relative to Hamilton and desire to build out as a complete community.

The share of housing growth to each of the local municipalities may vary from decade to decade over next 30 years, as shown in Table 6. Some of the shares in the table may give the appearance of a high level of precision. However, undue precision was not the intention; rather they are arithmetically required in order for the results to be the “even” figures that apply to the overall 30 year period from 2021 to 2051.

Table 6

Household Growth Share by Time Period to 2051 by Local Municipality Preferred Growth Option to 2051					
Municipality	Share 2016 to 2021	Share 2021 to 2031	Share 2031 to 2041	Share 2041 to 2051	Share 2021 to 2051
Fort Erie	7.8%	8.0%	8.0%	8.0%	8.0%
Grimsby	8.8%	5.0%	5.0%	5.0%	5.0%
Lincoln	7.1%	5.0%	5.0%	5.0%	5.0%
Niagara Falls	22.1%	23.0%	21.8%	21.0%	22.0%
Niagara-on the-Lake	6.6%	5.0%	5.0%	5.0%	5.0%
Pelham	5.4%	5.0%	4.4%	4.0%	4.5%
Port Colborne	1.5%	2.0%	2.6%	3.0%	2.5%
St. Catharines	13.4%	22.9%	21.8%	19.5%	21.5%
Thorold	14.2%	6.2%	7.0%	8.0%	7.0%
Wainfleet	1.3%	0.5%	0.5%	0.5%	0.5%
Welland	9.0%	8.7%	9.0%	11.0%	9.5%
West Lincoln	2.9%	8.7%	9.9%	10.0%	9.5%
Niagara Region	100.0%	100.0%	100.0%	100.0%	100.0%

Based on the total household counts in Tables 3 and 4 then applying the growth shares from Tables 5 and 6 results in the total households by municipality for each Census year and for the 35-year period from 2016 to 2051 and the 30-year period for 2021 to 2051 shown in Table 7.

Table 7

Total Households, 2016-2051 by Local Municipality Preferred Growth Option to 2051											
Municipality	Households (Dwelling Units Occupied by Usual Residents)								2021-2051		
	2016	2021	2026	2031	2036	2041	2046	2051	2016-2051 Growth	Unit Growth	Compound Annual Growth Rate
Fort Erie	13,180	14,150	15,510	16,780	18,030	19,300	20,380	21,510	8,330	7,350	1.4%
Grimsby	10,380	11,470	12,350	13,120	13,900	14,690	15,390	16,070	5,690	4,600	1.1%
Lincoln	8,710	9,590	10,430	11,230	12,010	12,810	13,500	14,190	5,480	4,600	1.3%
Niagara Falls	35,760	38,520	42,480	46,080	49,550	52,950	55,860	58,740	22,980	20,220	1.4%
Niagara-on the-Lake	7,090	7,910	8,780	9,560	10,350	11,130	11,820	12,500	5,410	4,600	1.5%
Pelham	6,480	7,150	8,000	8,790	9,480	10,180	10,730	11,280	4,810	4,140	1.5%
Port Colborne	8,020	8,210	8,550	8,870	9,270	9,680	10,090	10,500	2,490	2,300	0.8%
St. Catharines	56,880	58,550	62,450	66,090	69,530	72,940	75,710	78,320	21,440	19,760	1.0%
Thorold	7,460	9,230	10,290	11,260	12,370	13,460	14,560	15,660	8,200	6,440	1.8%
Wainfleet	2,420	2,580	2,670	2,740	2,820	2,900	2,970	3,040	620	460	0.5%
Welland	22,490	23,610	25,090	26,480	27,870	29,310	30,820	32,340	9,850	8,730	1.1%
West Lincoln	4,970	5,330	6,760	8,190	9,730	11,300	12,670	14,060	9,090	8,730	3.3%
Niagara Region	183,820	196,300	213,360	229,190	244,900	260,650	274,510	288,200	104,380	91,900	1.3%

ii. Shares of Housing Growth Are Allocated to Policy Areas to 2051

While the above shares of household growth apply to the total municipalities, the *Growth Plan* and the LNA also require an allocation to the policy areas. Those policy areas are the Built-Up Area, the Designated Greenfield Area and the Rural Area. Within each municipality, the Rural Area is allocated a minimal 0.5%. New rural residential development is not generally encouraged by the policies of the *Growth Plan* or the Region of Niagara. Though there are legacy approvals and lots of record where limited rural development will still occur. The exception is the Town of Wainfleet, which has no urban serviced residential communities. By definition, it is 100% rural development. During further work in the MCR, the rural shares can be adjusted, if necessary, to reflect a more precise expectation for rural unit growth. Any adjustment to rural allocation would simply add or deduct the units from the DGA to gain a better calculation of land need. Adjusting the rural share for LNA purposes, for example, would not affect any other matters contained in this memorandum respecting the population, housing mix or employment.

The share to the Built-Up Area, otherwise referred to as the intensification rate, is set at a minimum of 50% for most of the urban communities in the GGH, including the Region of Niagara. In two tier systems, the Growth Plan and the LNA require that Regions work with local municipalities to establish an appropriate intensification rates for each and results in at least the minimum 50% intensification. The intensification rate for each local municipality is shown in Table 8. The rates have been set at those agreed to by staff at the Region and the local municipalities through the MCR consultation process over the past year. These rates are the same or a little higher in each of the municipalities compared to those used in 2018 and, in large part, are based on the significant potential to accommodate ground-related housing within the Built-Up Area in most of the Region. In the period from 2015 to 2019, intensification units in Niagara Region were about 70% ground-related units and 30% apartments. Intensification is likely to be higher in places where intensification can provide a full range of housing types, compared to other jurisdictions where intensification units are nearly all apartments. Niagara Region is quite unlike Hamilton and the Regions of the GTAH in this respect.

The resulting overall intensification rate of 55.9% between 2021 and 2051 is very little higher than the 55% rate assumption for 2016 to 2041 in the previous MCR work in 2018. This level of intensification is not difficult for Niagara Region to achieve, given that in the five-year period from 2015 through 2019, intensification represented about 50% of new units. This growth occurred in a period when the intensification rate policy was only 40%. High levels of intensification should not be surprising, as we would expect a high rate in Niagara because about half of the Regional population and its growth is in communities where the greenbelt and the preservation of tender fruit lands limit the amount of urban land to accommodate housing growth.

Table 8

Shares of Household Growth by Policy Area Niagara Region by Local Municipality, 2021-2051				
Municipality	Built-Up Area	DGA	Rural	Total
Fort Erie	50.0%	49.5%	0.5%	100%
Grimsby	98.0%	1.5%	0.5%	100%
Lincoln	80.0%	19.5%	0.5%	100%
Niagara Falls	50.0%	49.5%	0.5%	100%
Niagara-on-the-Lake	25.0%	74.5%	0.5%	100%
Pelham	25.0%	74.5%	0.5%	100%
Port Colborne	30.0%	69.5%	0.5%	100%
St. Catharines	95.0%	4.5%	0.5%	100%
Thorold	25.0%	74.5%	0.5%	100%
Wainfleet	0.0%	0.0%	100.0%	100%
Welland	60.0%	39.5%	0.5%	100%
West Lincoln	13.0%	86.5%	0.5%	100%
Niagara Region	56.1%	42.9%	1.0%	100.0%

Applying these shares of housing growth to the forecast of occupied dwelling units required by 2051 yield a forecast growth in households by policy area for each municipality for the period 2021 to 2051, as shown in Table 9.

Table 9

Household Growth by Policy Area Niagara Region by Local Municipality, 2021-2051				
Municipality	Built Up Area	DGA	Rural	Total
Fort Erie	3,680	3,640	40	7,360
Grimsby	4,500	70	20	4,590
Lincoln	3,680	900	20	4,600
Niagara Falls	10,110	10,010	100	20,220
Niagara-on the Lake	1,150	3,420	20	4,590
Pelham	1,030	3,080	20	4,130
Port Colborne	690	1,600	10	2,300
St. Catharines	18,770	890	100	19,760
Thorold	1,610	4,790	30	6,430
Wainfleet	0	0	460	460
Welland	5,240	3,450	40	8,730
West Lincoln	1,130	7,550	40	8,720
Niagara Region	51,590	39,400	900	91,890

E. A HOUSING MIX CLOSE TO THE MARKET-BASED DEMAND IS POSSIBLE WITHIN THE PLANNED INTENSIFICATION RATE

As already noted, Niagara Region is unique among most of the GGH municipalities in that a high proportion of ground-related housing can be built within the current Delineated BUA. This capacity to address the market demand for detached, semi-detached and row housing while meeting planned intensification targets means that a housing mix could be provided at or close to the market-based demand housing mix. The market-based demand housing mix for 2021 to 2051 provided in Table 4 was 51% singles/semis, 26% rows and 23% apartments.

Recent development in the Region has been about 85% ground-related units and 15% apartment units. Within the policy areas, the Delineated BUA has been 71% ground-related units and 39% apartments and in the Designated Greenfield ground-related units are well over 95% of new construction. For this purpose, share to ground-related housing includes accessory units, since they are typically part of what would otherwise be a single or semi-detached unit.

i. Degree that Market-Based Housing Demand Aligns with Policy Is a Test of How Much Ground-Related Housing Can Be Supplied within the BUA

Within the two-tier system in Niagara, the local municipalities, not the Region, establish the housing mix through local planning. The purpose of considering housing mix at the Regional level is that housing mix is a key component of the LNA for which the Region is responsible. The Region will need a clear housing mix so it can appropriately calculate land need, which is based on the capacity of existing DGA to accommodate housing types compared to the forecast housing demand is by type. The purpose here is to demonstrate that there is (or is not) an ability to accommodate the unit growth by type within the policy areas at a mix that represents a market-based housing mix. Alternatively, the analysis would demonstrate the difference between market-based demand and what units can be accommodated when Growth Plan policies are applied.

In Niagara the starting point to look at housing by type is the market-based demand forecast already described which indicated 2021 to 2051 market-based demand for 23% apartment units and 77% ground-related units. At the same time units to be built within the BUA are to be almost 57% of all units built in the Region. These figures mean that an allocation of units to policy areas will result in well less than half of BUA units will be apartment form, the structure type that, in other jurisdictions, dominates intensification development. DGA development is currently and is forecast to be almost entirely ground-related units.

Put simply, in this section we are looking at a housing mix allocation to the BUA that is substantially ground-related units and want to answer the question of whether these units could reasonably “fit” into the BUA of each municipality. The starting point is in Tables 10 and 11 that provides an allocation by type to the BUA, using the market-based demand housing mix.

Table 10

Initial Allocation to Delineated Built Up Area by Housing Unit Type Using Market Based Demand Housing Unit Types				
Housing Units by Census Housing Types				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	1,520	1,620	540	3,680
Grimsby	110	1,330	3,060	4,500
Lincoln	1,490	990	1,190	3,680
Niagara Falls	4,300	3,070	2,740	10,110
Niagara-on-the-Lake	470	380	290	1,150
Pelham	350	500	180	1,030
Port Colborne	400	130	160	690
St. Catharines	4,030	4,370	10,380	18,770
Thorold	580	890	140	1,610
Wainfleet	0	0	0	0
Welland	3,290	1,080	870	5,240
West Lincoln	760	120	250	1,130
Niagara Region	17,300	14,490	19,800	51,590

Table 11

Initial Allocation to Delineated Built Up Area by Housing Unit Type Using Market Based Demand Housing Unit Types				
Housing Mix by Census Housing Type				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	41.3%	44.0%	14.6%	100.0%
Grimsby	2.5%	29.5%	68.0%	100.0%
Lincoln	40.5%	27.0%	32.5%	100.0%
Niagara Falls	42.5%	30.4%	27.1%	100.0%
Niagara-on-the-Lake	41.2%	33.3%	25.5%	100.0%
Pelham	34.3%	48.4%	17.3%	100.0%
Port Colborne	58.5%	18.6%	22.9%	100.0%
St. Catharines	21.5%	23.3%	55.3%	100.0%
Thorold	35.8%	55.6%	8.6%	100.0%
Wainfleet	0.0%	0.0%	0.0%	0.0%
Welland	62.8%	20.7%	16.5%	100.0%
West Lincoln	66.6%	11.0%	22.4%	100.0%
Niagara Region	33.5%	28.1%	38.4%	100.0%

To consider how the housing mix by local municipality in Tables 10 and 11 might be accommodated, a rough land area calculation was undertaken. The land area was then compared to the identified vacant residential land inventory within the BUA. In Fort Erie, Niagara-on-the-Lake, Pelham, Port Colborne, Thorold and West Lincoln there was more than sufficient land to accommodate the intensification units with the housing mix shown. This conclusion did not even require consideration of redevelopment and infill potential beyond the identified vacant parcels, which would generally form a substantial proportion of intensification units.

In Grimsby and Lincoln there are some vacant lands, but most intensification potential is in two secondary plan areas in each municipality. The remainder of the Winston Plan and the GO Station Secondary Plan areas in Grimsby can accommodate all

apartments shown and most of the ground-related units. It is likely the rest of the ground-related could be accommodated through other infill in the community over the next 30 years. Similarly in Lincoln the Beamsville GO and the Prudhommes plans can accommodate all of the units overall but not likely all of the ground related units. Accommodating this growth may need some shift upwards in density type, particularly from singles up to Rows and, likely, to apartments, particularly given the development proposed at Prudhommes.

In Niagara Falls, there is identified vacant land sufficient to accommodate about 70% of the units shown in the chart. A small shift in unit type from singles and semis at typical densities to smaller lot singles or up to rows could raise the 70% figure significantly. As well, the Grand Niagara area, which is within the Built-Up Area, is planned for 1,400 units, mostly singles and semis. The Transit Station Secondary Plan area as well as other nodes and corridors provide enough development potential that the intensification figures for Niagara Falls likely could be accommodated.

In the City of Welland, the vacant residential lands within the Built-Up Area could accommodate about half of the intensification housing shown Table 14. The mix shown for Welland is very focussed on singles and semis and reduces the likelihood that there is reasonable development potential for these units. A shift in housing mix reducing the singles/semis and increasing the apartment would make the physical potential for these units more likely. The City of Welland has done some of this analysis and is expecting an overall housing mix for the City for 2016 to 2041 of 34% singles and semis and 33% each of rows and apartments. The portion of this housing in the BUA could certainly fit within the available supply potential.

Finally, the City of St. Catharines has a large amount development potential for higher density housing in the downtown UGC and other sites in the city. A mix of medium and high-density units in the GO Station Plan area and on the former General Motors Ontario Street sites will provide for a large unit potential. However, the amount of lower density housing shown in Table 14 for St. Catharines is likely just too much to accommodate reasonably within the BUA.

The conclusion to be drawn from all of this housing type analysis is that a housing mix in the Region that represented a market-based housing demand could mostly fit within the policy areas with growth as currently allocated. Lincoln, St. Catharines and Welland probably need fewer single and semi detached units and more rows and apartments for the intensification units to reasonably fit.

The housing mix for the BUA was then adjusted to account for conditions described above, plus providing a bit better balance of unit type within intensification in some of the other communities, relative to the initial housing mix.

ii. Housing Mix to Be Used by the Region for Land Needs Assessment Purposes Is Very Close to the Market-Based Housing Demand

The result of the adjustments to the housing mix to establish a reasonable fit between demand and supply in the BUA, is Region-wide change to the housing mix. From 2021 to 2051, growth would shift from a market-based demand of 51/26/23 singles/semis, rows and apartments to an adjusted mix to align with intensification policy of 46/27/27.

On the total housing stock the difference between the two is very small, a total mix in initial market-based forecast is 65/14/21 at 2051 and the adjusted mix results in a 63/15/22 mix.

These two housing mixes are sufficiently close to conclude that the housing mix arising from the intensification rate applied to Niagara municipalities for 2021 to 2051 is a housing mix that is a reasonable representation of a market-based demand in the context of Growth Plan policies representing a direction to plan for a high levels of intensification.

Table 12 provides the adjusted housing mix information for the overall region (this is the same as Table 4 except using the adjusted housing mix).

Table 12

Region of Niagara Housing Forecast: Policy Adjusted Housing Mix Preferred Growth Option to 2051 Occupied Dwelling Units by Census Structure Type					
Total Units					
Year	Single	Semi	Row	Apt-All Types	Total
2001	114,540	8,670	8,050	31,270	162,520
2021	130,100	10,330	17,220	38,650	196,300
2051	167,560	14,900	42,000	63,770	288,220
Housing Mix of Total Units					
Year	Single	Semi	Row	Apt-All Types	Total
2001	70.5%	5.3%	5.0%	19.2%	100.0%
2021	66.3%	5.3%	8.8%	19.7%	100.0%
2051	58.2%	5.2%	14.6%	22.0%	100.0%
Unit Growth					
Period	Single	Semi	Row	Apt-All Types	Total
2001-06	860	280	1,730	4,110	6,980
2006-11	4,740	50	960	(570)	5,180
2011-16	3,850	760	2,590	1,960	9,140
2016-21	6,110	580	3,900	1,880	12,480
2001-2021	15,560	1,660	9,170	7,380	33,780
2021-26	8,110	850	3,370	4,720	17,050
2026-31	7,140	740	3,600	4,350	15,840
2031-36	6,640	740	3,870	4,460	15,720
2036-41	6,250	790	4,290	4,410	15,750
2041-46	4,820	710	4,520	3,830	13,870
2046-51	4,500	720	5,110	3,350	13,690
2021-2051	37,460	4,570	24,780	25,120	91,920
Housing Growth Unit Type Mix					
Period	Single	Semi	Row	Apt-All Types	Total
2001-2021	46.1%	4.9%	27.1%	21.8%	100.0%
2021-2051	40.7%	5.0%	27.0%	27.3%	100.0%

Tables 13 through 18 present the resulting housing mixes for each of the municipalities for the BUA and the DGA + Rural and the total for each municipality. The housing mixes in the table are suitable for use by the Region for the LNA for growth in housing from 2021 to 2051 by local municipality.

Tables 13 and 14 show a housing mix for the Delineated Built-Up Areas in each municipality. As described above, the purpose here was to demonstrate a housing mix for intensification that could be accommodated within the BUA. These housing mixes are could reasonably fit within the BUA as established within each municipality.

Table 13

Delineated Built Up Area Housing Unit Growth, 2021 to 2051				
Preferred Growth Option to 2051				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	1,520	1,620	540	3,680
Grimsby	110	1,330	3,060	4,500
Lincoln	1,430	920	1,320	3,670
Niagara Falls	4,220	3,050	2,830	10,100
Niagara-on the-Lake	240	350	560	1,150
Pelham	350	500	180	1,030
Port Colborne	400	130	160	690
St. Catharines	2,480	4,370	11,930	18,780
Thorold	580	890	140	1,610
Wainfleet	0	0	0	0
Welland	920	1,730	2,590	5,240
West Lincoln	760	120	250	1,130
Niagara Region	13,020	15,010	23,560	51,590

Table 14

Delineated Built Up Area Housing Mix of Growth, 2021 to 2051				
Preferred Growth Option to 2051				
2021 51	Single/Semi	Row	Apartment	Total
Fort Erie	41.3%	44.0%	14.6%	100.0%
Grimsby	2.5%	29.5%	68.0%	100.0%
Lincoln	39.0%	25.1%	35.9%	100.0%
Niagara Falls	41.8%	30.2%	28.0%	100.0%
Niagara-on the Lake	20.9%	30.4%	48.7%	100.0%
Pelham	34.3%	48.4%	17.2%	100.0%
Port Colborne	58.6%	18.6%	22.8%	100.0%
St. Catharines	13.2%	23.3%	63.5%	100.0%
Thorold	35.8%	55.6%	8.6%	100.0%
Wainfleet	0.0%	0.0%	0.0%	0.0%
Welland	17.5%	33.0%	49.5%	100.0%
West Lincoln	67.2%	10.4%	22.4%	100.0%
Niagara Region	25.2%	29.1%	45.7%	100.0%

Tables 15 and 16 show housing growth from 2021 to 2051 by housing type, by municipality for the DGA and Rural area combined. There is nothing surprising in the DGA/Rural area. A very large proportion of units are expected to be ground-related housing and apartments, a small share of units in the market. The LNA will later show how this DGA demand may fit within the DGA areas.

Table 15

Designated Greenfield Area and Rural Housing Unit Growth, 2021 to 2051				
Preferred Growth Option to 2051				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	2,540	1,080	60	3,680
Grimsby	10	20	60	90
Lincoln	160	610	150	920
Niagara Falls	7,760	2,040	310	10,110
Niagara on-the Lake	2,810	560	70	3,440
Pelham	2,030	570	500	3,100
Port Colborne	1,290	300	20	1,610
St. Catharines	560	130	300	990
Thorold	3,320	1,500	20	4,840
Wainfleet	450	0	10	460
Welland	2,670	720	100	3,490
West Lincoln	5,270	2,270	60	7,600
Niagara Region	28,850	9,790	1,660	40,300

Table 16

Designated Greenfield Area and Rural Housing Mix of Growth, 2021 to 2051				
Preferred Growth Option to 2051				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	69.0%	29.4%	1.6%	100.0%
Grimsby	10.8%	21.2%	68.0%	100.0%
Lincoln	17.2%	66.8%	16.0%	101.0%
Niagara Falls	76.8%	20.1%	3.1%	100.0%
Niagara on-the-Lake	81.7%	16.3%	2.0%	100.0%
Pelham	65.5%	18.3%	16.2%	100.0%
Port Colborne	80.3%	18.6%	1.1%	100.0%
St. Catharines	56.5%	13.6%	30.0%	101.0%
Thorold	68.7%	31.0%	0.3%	100.0%
Wainfleet	97.2%	0.0%	2.8%	100.0%
Welland	76.5%	20.6%	2.9%	100.0%
West Lincoln	69.3%	29.9%	0.8%	100.0%
Niagara Region	71.6%	24.3%	4.1%	100.0%

Tables 17 and 18 show the housing growth from 2021 to 2051 by housing type for the total municipality. Table 17 is the simple addition of Tables 13 and 15.

Table 17

Housing Unit Growth by Unit Type, 2021 to 2051 by Municipality Preferred Growth Option to 2051				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	4,060	2,700	600	7,360
Grimsby	120	1,350	3,130	4,600
Lincoln	1,590	1,540	1,470	4,600
Niagara Falls	11,980	5,090	3,150	20,220
Niagara-on-the-Lake	3,050	910	630	4,590
Pelham	2,390	1,070	680	4,140
Port Colborne	1,690	430	170	2,290
St. Catharines	3,040	4,500	12,230	19,770
Thorold	3,890	2,390	150	6,430
Wainfleet	450	0	10	460
Welland	3,590	2,450	2,690	8,730
West Lincoln	6,030	2,390	310	8,730
Niagara Region	41,880	24,800	25,220	91,900

Table 18

Designated Greenfield Area and Rural Housing Mix of Growth, 2021 to 2051 Preferred Growth Option to 2051				
2021-51	Single/Semi	Row	Apartment	Total
Fort Erie	55.2%	36.7%	8.1%	100.0%
Grimsby	2.7%	29.3%	68.0%	100.0%
Lincoln	34.7%	33.5%	31.9%	101.0%
Niagara Falls	59.3%	25.2%	15.6%	100.0%
Niagara-on-the-Lake	66.4%	19.8%	13.7%	100.0%
Pelham	57.7%	25.8%	16.5%	100.0%
Port Colborne	73.8%	18.6%	7.6%	100.0%
St. Catharines	15.4%	22.8%	61.9%	101.0%
Thorold	60.5%	37.1%	2.4%	100.0%
Wainfleet	97.2%	0.0%	2.8%	100.0%
Welland	41.1%	28.0%	30.8%	100.0%
West Lincoln	69.0%	27.4%	3.6%	100.0%
Niagara Region	45.6%	27.0%	27.4%	100.0%

F. TOTAL POPULATION AND TOTAL HOUSEHOLDS ARE FORECAST BY MUNICIPALITY FOR FIVE-YEAR CENSUS PERIODS TO 2051

Based on the all of the housing growth analysis presented above, Table 19 now provides the total population by municipality for each five-year Census period from 2016 to 2051.

Table 19

Total Population Forecast, 2016 to 2051 by Local Municipality Preferred Growth Option to 2051											
Municipality	Total Population Including Census Net Undercoverage								2016-2051 Growth	2021 2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Net Change	Compound Annual Growth Rate
Fort Erie	31,490	33,930	36,320	38,640	40,910	43,240	45,460	48,050	16,560	14,120	1.17%
Grimsby	28,010	30,300	31,270	32,180	33,220	34,330	35,610	37,000	8,990	6,700	0.67%
Lincoln	24,390	26,860	28,290	29,710	31,090	32,540	34,040	35,660	11,270	8,800	0.95%
Niagara Falls	90,310	97,220	104,780	112,030	119,960	127,870	135,730	141,650	51,340	44,430	1.26%
Niagara-on-the-Lake	17,960	19,970	21,480	22,930	24,380	25,850	27,300	28,900	10,940	8,930	1.24%
Pelham	17,540	19,320	21,100	22,770	24,480	26,150	27,720	28,830	11,290	9,510	1.34%
Port Colborne	18,770	19,250	19,600	20,010	20,670	21,350	22,250	23,230	4,460	3,980	0.63%
St. Catharines	136,490	140,250	145,350	150,700	155,600	160,800	165,910	171,890	35,400	31,640	0.68%
Thorold	19,280	24,440	26,710	28,890	31,390	33,900	36,650	39,690	20,410	15,250	1.63%
Wainfleet	6,530	7,000	7,070	7,150	7,260	7,370	7,540	7,730	1,200	730	0.33%
Welland	53,620	56,210	58,560	60,920	63,420	65,960	69,290	73,000	19,380	16,790	0.88%
West Lincoln	14,870	16,370	20,010	23,530	27,420	31,240	34,730	38,370	23,500	22,000	2.88%
Niagara Region	459,260	491,120	520,540	549,460	579,800	610,600	642,230	674,000	214,740	182,880	1.06%

To conclude the residential element of this review, it appears that Niagara Region will be able to provide sufficient housing to meet the revised population forecast of 674,000 in 2051. The housing can be provided through a combination of intensification and greenfield development consistent with Growth Plan policies and the housing can be accommodated at a housing mix that is close to that representing market-based demand.

G. EMPLOYMENT FORECAST TO 2051

In 2019, in concert with Regional staff, Hemson undertook an analysis of the employment surveys conducted by the Region in 2016 and 2018; referred to as the Niagara Employment Inventory (NEI). This analysis revealed that enterprises categorized as manufacturing and warehousing are less concentrated in employment areas across the Region than is typical in other municipalities. A significant number of these businesses are located in the Community Areas and the rural area, largely related to the agricultural base and food and wine production. In our advisory memorandum of September 2019 Hemson undertook to revise the employment forecast to 2041. This partial re-categorization of employment within the land use based employment categories in Niagara was a large part of the basis for a further redefinition of the employment categories provided in the Appendix to the Greater Golden Horseshoe: Growth Forecasts to 2051.

Based on these updated definitions of the land use based employment categories, the 2016 base employment has been restated into the categories which are now more explicitly geographically based and less NAICS based than in the past. The Place of Work employment data by Dissemination area from the 2016 Census is the primary

data that allowed for the restatement of the base employment. The employment categories are:

- Major office employment is any employment in a freestanding office building of 20,000 sq. ft. or greater including public buildings such as City Halls and Police Stations. Major Office buildings can be within any of the geographic areas of the other categories.
- Population-Related Employment is all employment within urban community areas, except major office, and is mainly commercial retail, institutional and urban work at home employment. Major concentrations of retail or large institutions excluded from Employment Land Employment are also part of Population-Related Employment.
- Employment Land Employment is all employment in urban industrial-type employment areas, excluding major office. As well, large retail concentrations and major institutions that lie within employment areas are excluded from the Employment Land Employment category. In Niagara Region these exclusions were Brock University, Niagara Health St. Catharines Site Hospital and the nearby large retail concentration in west St. Catharines.

Rural industrial areas that are substantial are included in Employment Land Employment as are large freestanding non-agricultural industrial uses that are in the rural area or within the community area. These are quite few in number, with only the rural industrial at Allen's corners in West Lincoln being included within Employment Land Employment.

- Rural Employment is now all employment occurring within the rural geography with the few exceptions for major industrial uses or larger rural industrial areas. Work at home employment is typically a substantial proportion of the rural employment base. This new rural category is substantially larger than the old Rural-Based employment that was largely limited to agricultural and extraction uses. The new industry in cannabis production, which is quite labour intensive, may be located in greenhouses in the rural area, as in Pelham and Lincoln or in serviced urban facilities as one in Grimsby. The jobs are counted as either Rural or Employment Land Employment wherever the facility happens to be located.

The categorization of employment used in 2019 is shown in Table 20 in comparison to the updated 2020 categorizations used in the background work to Schedule 3. Notably, a more complete office data set from CoStar data allowed for a significant update to the space and employment, now showing nearly double the office employment. Similarly, the rural employment is significantly higher based on the new definition of Rural Employment and the use of the Dissemination Area data for much of the allocation.

In addition, we would also focus attention on the Employment Land Employment in Lincoln and West Lincoln, both of which were significantly overstated in 2019. In West Lincoln, this was partly related to counting the new Stanpac Plant in Smithville as if it had been completed in 2016, rather than 2018. In Lincoln, some the rural employment in the greenhouses had been mistakenly included within the Employment Land

Employment. Lastly, in Wainfleet the updated definition of employment means that all employment within the Township is classified as Rural Employment.

The forecast of total employment is based on the background work to Schedule 3 for the years prior to 2051, while 2051 is straight from Schedule 3. The total Regional employment at 2051 is 272,000, only 7,000 higher than the previous forecast figure of 265,000 for 2041. The total increment from 2016 is similar between both forecasts and the growth increment by category is quite similar. As a result, the growth from 2016 to 2051 by category for each of the municipalities is also quite similar to the 2019 forecast.

Table 20

2016 Employment Base Using Updated Land Use Based Employment Categories Compared to the 2019 Categorization Niagara Region by Local Municipality										
Municipality	2019 Niagara MCR Categorization					2020 Categorization as Defined in the Background Work to Schedule 3 to the Growth Plan				
	Major Office	Population Related	Employment Land	Rural	Total	Major Office	Population Related	Employment Land	Rural	Total
Fort Erie	0	6,520	3,160	670	10,350	0	5,390	3,100	1,860	10,350
Grimsby	0	6,210	3,260	310	9,780	230	5,700	3,220	600	9,760
Lincoln	0	3,970	3,590	3,520	11,080	120	2,350	3,110	5,510	11,080
Niagara Falls	0	32,420	8,340	1,210	41,970	3,120	28,910	8,340	1,620	41,990
Niagara-on the Lake	0	8,910	1,660	2,460	13,030	0	6,770	1,720	4,490	12,990
Pelham	0	3,310	40	1,160	4,510	260	2,440	0	1,820	4,520
Port Colborne	0	3,610	1,970	630	6,210	0	3,370	1,990	850	6,200
St. Catharines	8,950	37,590	14,030	1,550	62,120	9,690	37,060	14,170	1,220	62,140
Thorold	0	4,100	2,940	1,360	8,400	1,470	2,950	2,810	1,160	8,390
Wainfleet	0	450	440	520	1,410	0	0	0	1,460	1,460
Welland	0	15,020	2,610	110	17,740	480	14,280	2,660	340	17,760
West Lincoln	0	1,970	1,470	900	4,340	0	1,720	900	1,720	4,330
Niagara Region	8,950	124,080	43,510	14,400	190,940	15,360	110,940	42,020	22,640	190,960

Table 21 shows the total employment for each census year from 2016 through 2051. A decline in employment is shown in many municipalities because of COVID-19 related job losses. The decline is especially large in Niagara Falls and Niagara-on-the-Lake due to the enormous effects the pandemic has had on the tourism related sectors of food and accommodation, and entertainment and recreation. The forecast assumes that all of these job losses will have fully recovered well before 2026. Tables 22, 23, 24 and 25 provide the total employment at Census years for the local municipalities, with one table for each of the four employment categories.

Table 21

Total Employment Forecast, 2016 to 2051, Niagara Region and Local Municipalities Preferred Growth Option to 2051											
Municipality	Total Place of Work Employment								2016-2051 Growth	2021-2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Growth	Annual Growth Rate
Fort Erie	10,350	10,530	11,890	12,670	13,630	14,710	16,060	17,430	7,080	6,910	1.7%
Grimsby	9,760	10,690	11,980	12,280	12,720	13,320	13,920	14,670	4,910	3,980	1.1%
Lincoln	11,080	11,390	12,340	12,830	13,490	14,190	15,080	15,960	4,870	4,570	1.1%
Niagara Falls	41,990	37,780	45,160	46,780	49,200	52,080	55,270	58,110	16,120	20,330	1.4%
Niagara on the Lake	12,990	11,800	13,720	14,210	14,880	15,490	16,210	16,960	3,970	5,160	1.2%
Pelham	4,520	4,810	5,320	5,620	6,020	6,410	6,810	7,140	2,630	2,330	1.3%
Port Colborne	6,200	5,910	6,200	6,340	6,590	6,850	7,180	7,550	1,350	1,640	0.8%
St. Catharines	62,140	61,780	66,890	68,850	71,360	74,450	77,570	81,010	18,870	19,220	0.9%
Thorold	8,390	8,530	9,230	9,620	10,190	10,710	11,430	12,080	3,690	3,540	1.2%
Wainfleet	1,460	1,400	1,520	1,560	1,620	1,680	1,750	1,830	370	420	0.9%
Welland	17,760	18,030	20,820	21,750	23,110	24,640	26,550	28,790	11,030	10,760	1.6%
West Lincoln	4,330	4,460	5,550	6,260	7,250	8,280	9,340	10,480	6,140	6,020	2.9%
Niagara Region	190,960	187,110	210,610	218,780	230,050	242,810	257,170	272,000	81,040	84,890	1.3%

Table 22

Major Office Employment Forecast, 2016 to 2051, Niagara Region and Local Municipalities Preferred Growth Option to 2051											
Municipality	Major Office Employment								2016-2051 Growth	2021-2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Growth	Annual Growth Rate
Fort Erie	0	0	0	50	50	50	140	140	140	140	0.0%
Grimsby	230	650	890	890	890	950	950	1,030	800	380	1.5%
Lincoln	120	120	130	130	130	130	220	220	100	100	2.0%
Niagara Falls	3,120	3,210	3,520	3,650	3,800	3,970	4,160	4,360	1,240	1,150	1.0%
Niagara on-the-Lake	0	0	0	80	170	170	260	350	350	350	0.0%
Pelham	260	260	270	270	270	270	270	270	10	10	0.1%
Port Colborne	0	0	0	0	0	0	0	0	0	0	0.0%
St. Catharines	9,690	9,810	10,320	11,050	11,870	12,860	13,790	14,780	5,090	4,970	1.4%
Thorold	1,470	1,470	1,610	1,630	1,630	1,630	1,720	1,720	250	250	0.5%
Wainfleet	0	0	0	0	0	0	0	0	0	0	0.0%
Welland	480	480	660	660	740	740	740	850	360	360	1.9%
West Lincoln	0	0	0	0	0	80	80	160	160	160	0.0%
Niagara Region	15,360	15,990	17,400	18,410	19,550	20,850	22,330	23,870	8,510	7,880	1.3%

Table 23

Population Related Employment Forecast, 2016 to 2051, Niagara Region and Local Municipalities Preferred Growth Option to 2051											
Municipality	Population-Related Employment								2016-2051 Growth	2021-2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Growth	Annual Growth Rate
Fort Erie	5,390	5,850	6,420	6,750	7,210	7,690	8,200	8,730	3,340	2,890	1.3%
Grimsby	5,700	6,400	7,130	7,280	7,520	7,820	8,120	8,470	2,760	2,070	0.9%
Lincoln	2,350	2,850	3,170	3,370	3,630	3,880	4,140	4,430	2,070	1,580	1.5%
Niagara Falls	28,910	24,880	31,340	32,480	34,260	36,390	38,630	40,430	11,520	15,550	1.6%
Niagara-on-the-Lake	6,770	5,730	7,260	7,480	7,820	8,140	8,450	8,760	1,990	3,040	1.4%
Pelham	2,440	2,770	3,110	3,340	3,640	3,920	4,180	4,370	1,940	1,600	1.5%
Port Colborne	3,370	3,110	3,220	3,280	3,410	3,540	3,690	3,860	490	750	0.7%
St. Catharines	37,060	37,510	41,120	42,020	43,290	44,930	46,530	48,290	11,230	10,780	0.8%
Thorold	2,950	3,210	3,630	3,930	4,390	4,790	5,280	5,750	2,800	2,540	2.0%
Wainfleet	0	0	0	0	0	0	0	0	0	0	0.0%
Welland	14,280	15,060	16,690	17,030	17,530	18,160	18,890	19,680	5,400	4,610	0.9%
West Lincoln	1,720	1,980	2,610	3,090	3,770	4,390	5,000	5,560	3,840	3,580	3.5%
Niagara Region	110,940	109,330	125,700	130,050	136,470	143,650	151,110	158,330	47,380	48,990	1.2%

Table 24

Employment Land Employment Forecast, 2016 to 2051, Niagara Region and Local Municipalities Preferred Growth Option to 2051											
Municipality	Employment Land Employment								2016-2051 Growth	2021-2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Growth	Annual Growth Rate
Fort Erie	3,100	2,880	3,530	3,920	4,380	4,910	5,570	6,310	3,210	3,430	2.6%
Grimsby	3,220	3,070	3,290	3,400	3,550	3,720	3,940	4,200	980	1,130	1.1%
Lincoln	3,110	3,040	3,310	3,450	3,630	3,840	4,120	4,430	1,330	1,390	1.3%
Niagara Falls	8,340	8,110	8,550	8,810	9,170	9,620	10,210	10,890	2,550	2,770	1.0%
Niagara-on-the-Lake	1,720	1,700	1,760	1,780	1,820	1,860	1,920	1,990	270	290	0.5%
Pelham	0	0	0	0	0	0	0	0	0	0	0.0%
Port Colborne	1,990	1,980	2,040	2,070	2,110	2,170	2,240	2,330	340	350	0.5%
St. Catharines	14,170	13,320	14,170	14,430	14,750	15,110	15,620	16,200	2,030	2,880	0.7%
Thorold	2,810	2,720	2,810	2,870	2,950	3,040	3,160	3,290	480	580	0.6%
Wainfleet	0	0	0	0	0	0	0	0	0	0	0.0%
Welland	2,660	2,160	3,060	3,610	4,310	5,130	6,220	7,470	4,810	5,300	4.2%
West Lincoln	900	810	1,150	1,330	1,550	1,820	2,170	2,570	1,670	1,760	3.9%
Niagara Region	42,020	39,790	43,670	45,670	48,220	51,220	55,170	59,680	17,670	19,880	1.4%

Table 25

Rural Employment Forecast, 2016 to 2051, Niagara Region and Local Municipalities Preferred Growth Option to 2051											
Municipality	Rural Employment								2016-2051 Growth	2021-2051	
	2016	2021	2026	2031	2036	2041	2046	2051		Growth	Annual Growth Rate
Fort Erie	1,860	1,800	1,930	1,940	1,990	2,060	2,150	2,250	390	440	1.5%
Grimsby	600	580	670	710	770	830	900	970	370	390	1.7%
Lincoln	5,510	5,380	5,730	5,880	6,090	6,330	6,600	6,880	1,370	1,500	0.8%
Niagara Falls	1,620	1,580	1,750	1,840	1,970	2,110	2,270	2,430	810	850	1.4%
Niagara-on-the-Lake	4,490	4,380	4,710	4,860	5,070	5,310	5,580	5,860	1,370	1,480	1.0%
Pelham	1,820	1,780	1,940	2,010	2,110	2,220	2,360	2,500	670	710	1.1%
Port Colborne	850	820	940	990	1,070	1,150	1,250	1,360	510	540	1.7%
St. Catharines	1,220	1,150	1,270	1,350	1,450	1,550	1,640	1,740	520	590	1.4%
Thorold	1,160	1,140	1,180	1,200	1,220	1,250	1,280	1,310	160	170	0.5%
Wainfleet	1,460	1,400	1,520	1,560	1,620	1,680	1,750	1,830	370	420	0.9%
Welland	340	320	410	460	520	610	700	800	460	480	3.1%
West Lincoln	1,720	1,670	1,790	1,840	1,920	2,000	2,100	2,190	480	520	0.9%
Niagara Region	22,640	22,010	23,840	24,640	25,800	27,100	28,580	30,120	7,480	8,090	1.1%