

## **Growth Management Strategy Update: Appendix I**

### **Inputs to Evaluating Growth Scenarios**

The process of evaluating the growth scenarios developed as part of the mandate of the Inter-Municipal Workgroup will be guided by professional judgement and the direction included in the following key documents:

#### **Municipal Legislated Direction**

- Region of Peel Official Plan
- City of Brampton Official Plan
- City of Mississauga Official Plan
- Town of Caledon Official Plan

#### **Provincial Legislated Direction**

- Provincial Policy Statement
- Planning Act
- Growth Plan for the Greater Golden Horseshoe Area
- Greenbelt Plan
- Oak Ridges Moraine Conservation Plan
- Niagara Escarpment Plan
- Development Charges Act
- Municipal Act
- Infrastructure for Jobs and Prosperity Act

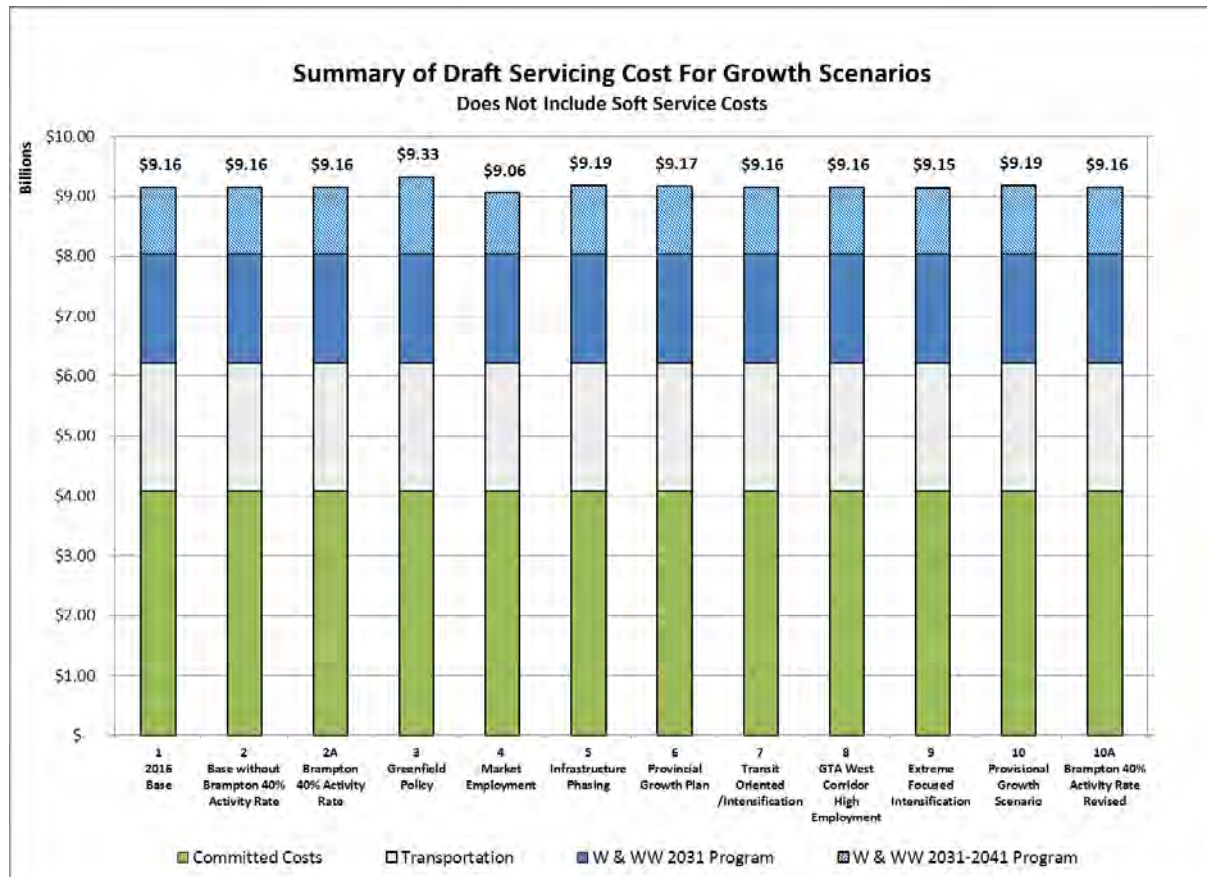
Taking into consideration the legislated direction from these key documents the Inter-Municipal Workgroup will use the following principles endorsed by the Growth Management Committee in the evaluation:

1. Efficient utilization of existing and planned Regional Infrastructure
2. Support “growth pays for growth” to minimize financial impacts to residents and businesses
3. Protection of environmental and agricultural resources
4. Densities that support transit, affordable housing and complete communities
5. Planning for a range of employment over the long term to adjust to market cycles

## Growth Management Strategy Update: Appendix II – Growth Scenario Costing Results and Methodology

### Scenario Servicing Estimates

The following chart depicts the draft infrastructure servicing cost for each of the scenarios that was developed for testing purposes.



### Components of Costing

The costing estimates have 3 major components;

#### **Committed Costs**

The total growth program costs identified include committed costs that are common to all scenarios. These committed costs include already approved capital projects that are already underway as well the cost to service debt including principal and interest.

#### **Transportation**

No material variance in capital costs has been identified for the various growth allocation scenarios for Regional roads. The Regional road system has a limited capacity to allow for further road widening.

**Growth Management Strategy Update: Appendix II – Growth Scenario Costing Results and Methodology****Water and Waste Water**

After analysis it was found that the main driver of cost variance was the water and waste water capital program beyond 2031. This variance was driven by the unique servicing requirements associated with the location of growth in the different scenarios.

**Approach to Scenario Costing For Water and Waste Water Services****Water and Waste Water Baseline Development**

The capital program for water and waste water services was developed for the base growth scenario using Master Plan costing principles and approaches.

The Master Plan update process has continually reviewed unit rates and costing information to ensure that cost estimates are accurately developed during each iteration of the Master Plan. The unit rates, costing information and methodology were most recently updated in 2016 and will continue to be refined throughout the development of the Master Plan

For the purposes of the baseline capital plan, some critical growth area servicing strategies and costs were developed as part of unique servicing reviews such as the BRES process and East - West Diversion. These studies provided specific project scope and costing information which fed into the baseline capital program.

**Water and Waste Water Scenario Costing**

For the Growth Management and Growth Scenario development, the approach was as follows:

The first step was to establish the baseline capital program for the original base scenario as a reference point for the water and wastewater costs. For each scenario, the population and employment growth by small planning area was reviewed to show the location and degree of growth of each scenario relative to the Base Scenario and to one another. The total cost estimate for each scenario was then developed by addition or removal of high level water or sewer infrastructure needs (linear and/or facilities) relative to the Base Scenario. It should be noted that a significant portion of the scenario cost estimates were not developed through detailed methods using discreet lengths, unit costs, and detailed additional construct ability review. Rather, the costing represents conceptual level costing at +/- 50 per cent which is more of a conceptual cost estimate than typical master plan processes.

Specific area servicing needs were considered in order to compare scenarios. For example, the McVean Sewage Pumping Station is anticipated to have a limited growth area that can be serviced prior to significant and costly upgrades or specific servicing strategy. Though the exact details and costs of this servicing strategy were not developed in this process, the calculation of the estimated growth that triggers an upgrade was reviewed for each scenario. A high level “McVean Strategy” cost was estimated and each scenario was then compared to one another as to whether or not it triggered this McVean strategy / expansion.

This was a thorough process that reviewed the differences in growth areas and high level servicing needs across all scenarios, but was not intended to be a detailed costing process. In

**Growth Management Strategy Update: Appendix II – Growth Scenario Costing Results and Methodology**

general, the relative costs between scenarios were developed for evaluation purposes only, with the intention to refine the program upon confirmation of the growth scenario

**Summary of Findings**

The total growth program servicing cost estimates for the growth scenarios range from \$9.06-9.33B. This is a total variance of just under 3 percent.

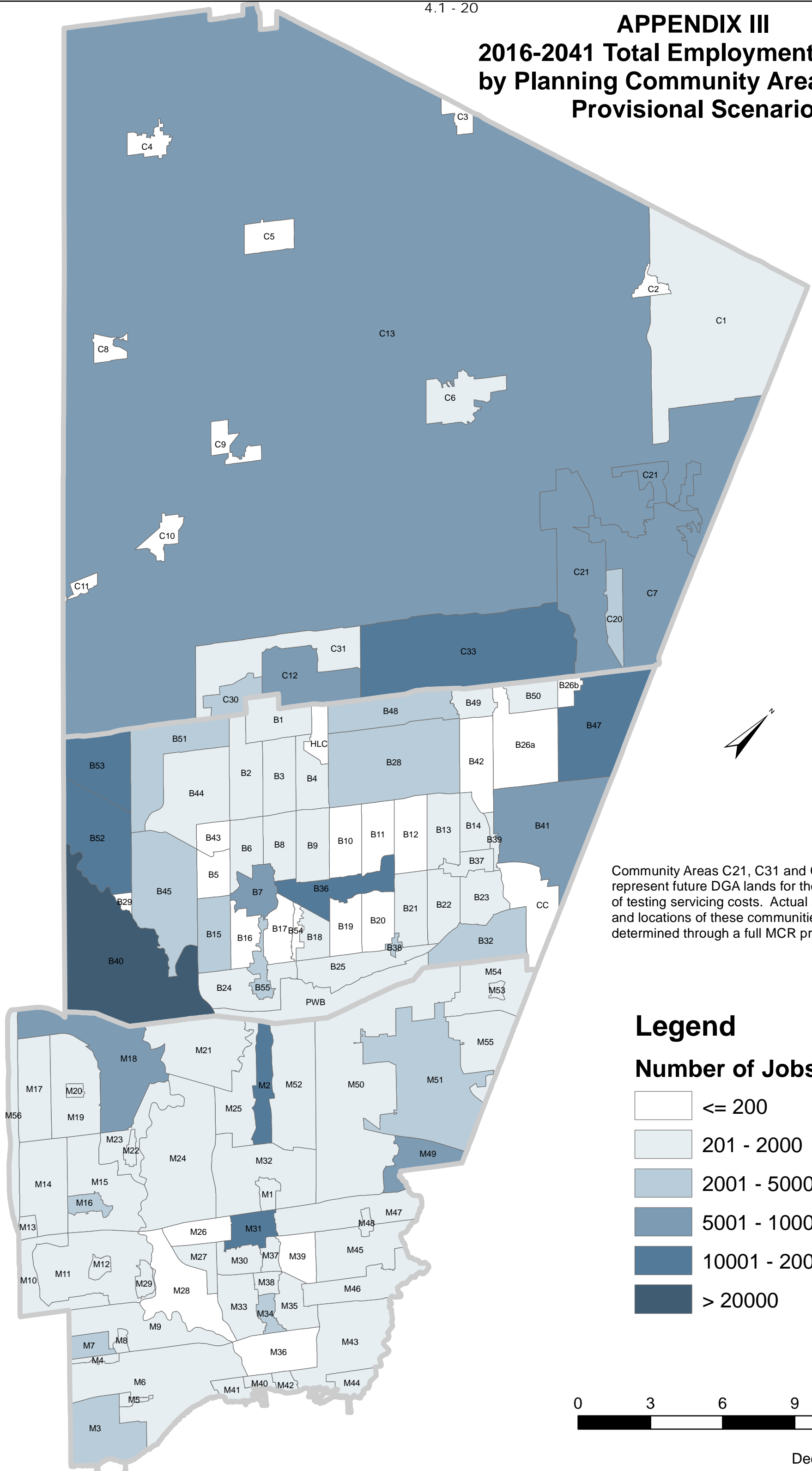
There is no material cost variance anticipated for committed costs in the short term or for Regional road widening related costs out to 2041. The key drivers of the cost differences between growth scenarios are found in the water and waste water plans beyond 2031.

The highest cost option is Scenario 3. This scenario anticipates higher greenfield development and less intensification than other scenarios. These higher costs are the result of the requirement to pay for infrastructure to service water pressure zone 7 in Bolton, as well as a new Sandhill water reservoir and pumping station. This infrastructure is not necessarily required by the other growth scenarios.

The lowest cost option is Scenario 4. This scenario tests employment growth that is more in line with recent employment growth trends instead of the Province's projections. This allows for the deferral of the Lakeview Water Treatment Plant intake extension to beyond 2041. This deferral results in lower costs than in the other growth scenarios.

After eliminating these two scenarios the remaining scenarios vary in total cost by less than half of one per-cent.

# APPENDIX III 2016-2041 Total Employment Growth by Planning Community Area in Peel Provisional Scenario

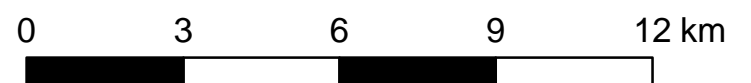


Community Areas C21, C31 and C33 represent future DGA lands for the purpose of testing servicing costs. Actual amount and locations of these communities must be determined through a full MCR process.

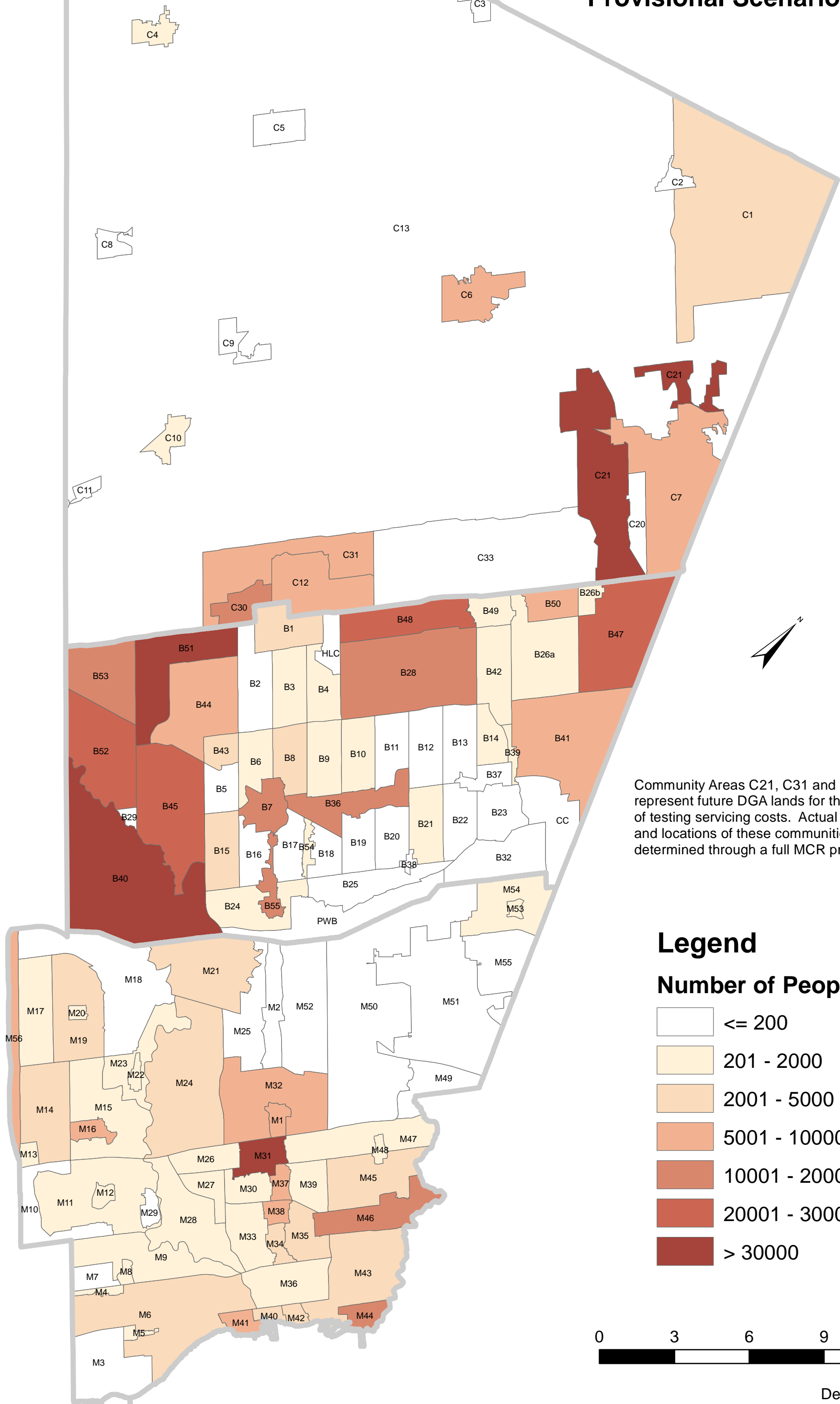
## Legend

### Number of Jobs

- <= 200
- 201 - 2000
- 2001 - 5000
- 5001 - 10000
- 10001 - 20000
- > 20000



# APPENDIX III 2016-2041 Total Population Growth by Planning Community Area in Peel Provisional Scenario

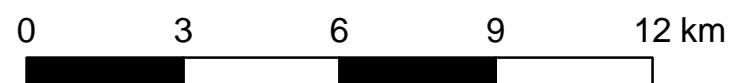


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## Legend

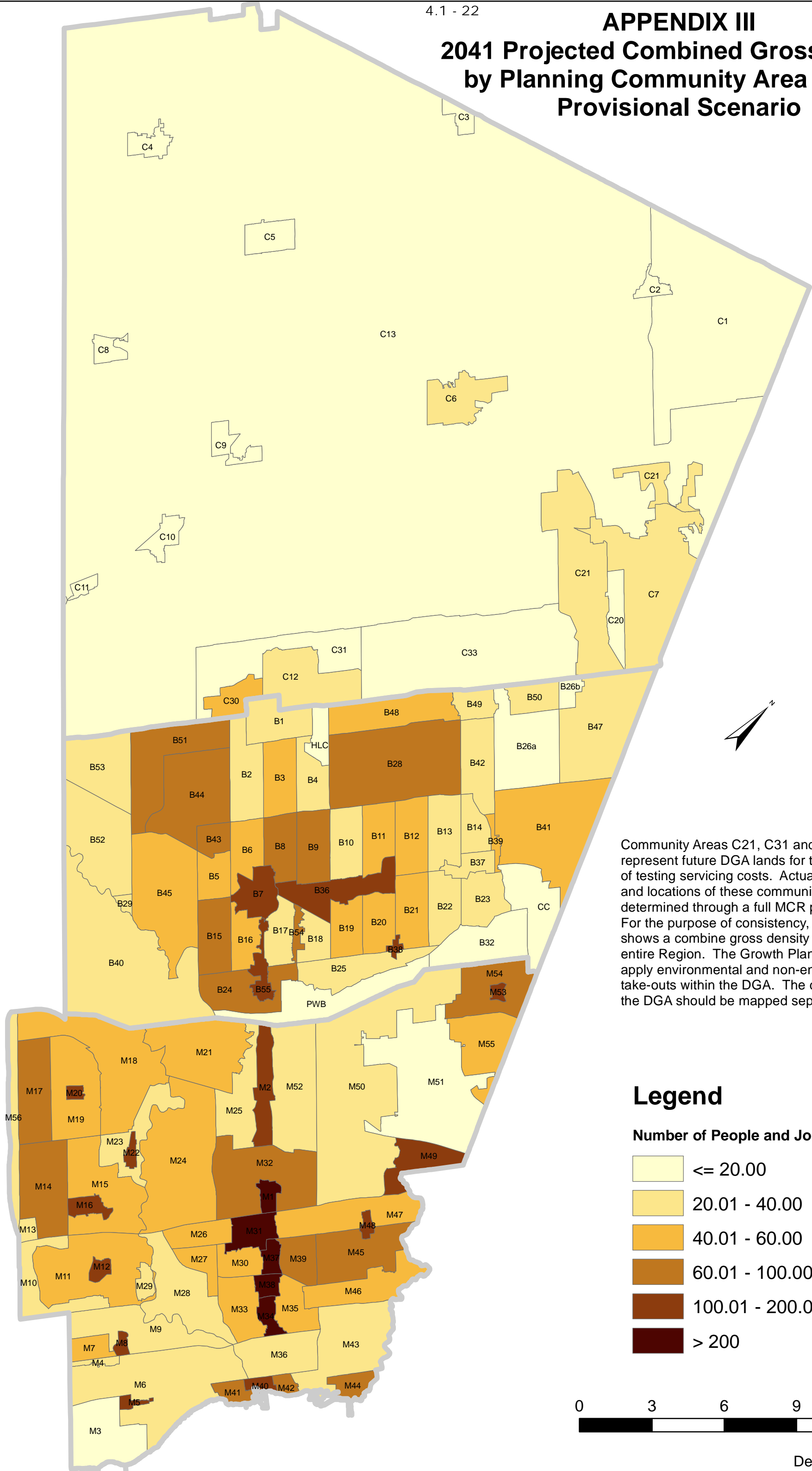
### Number of People

- <= 200
- 201 - 2000
- 2001 - 5000
- 5001 - 10000
- 10001 - 20000
- 20001 - 30000
- > 30000



# APPENDIX III

## 2041 Projected Combined Gross Density by Planning Community Area in Peel Provisional Scenario

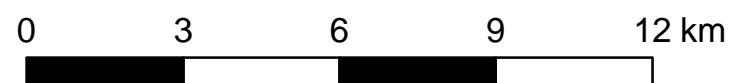


Community Areas C21, C31 and C33 represent future DGA lands for the purpose of testing servicing costs. Actual amount and locations of these communities must be determined through a full MCR process. For the purpose of consistency, this map shows a combine gross density accross the entire Region. The Growth Plan requires to apply environmental and non-environmental take-outs within the DGA. The densities within the DGA should be mapped separately.

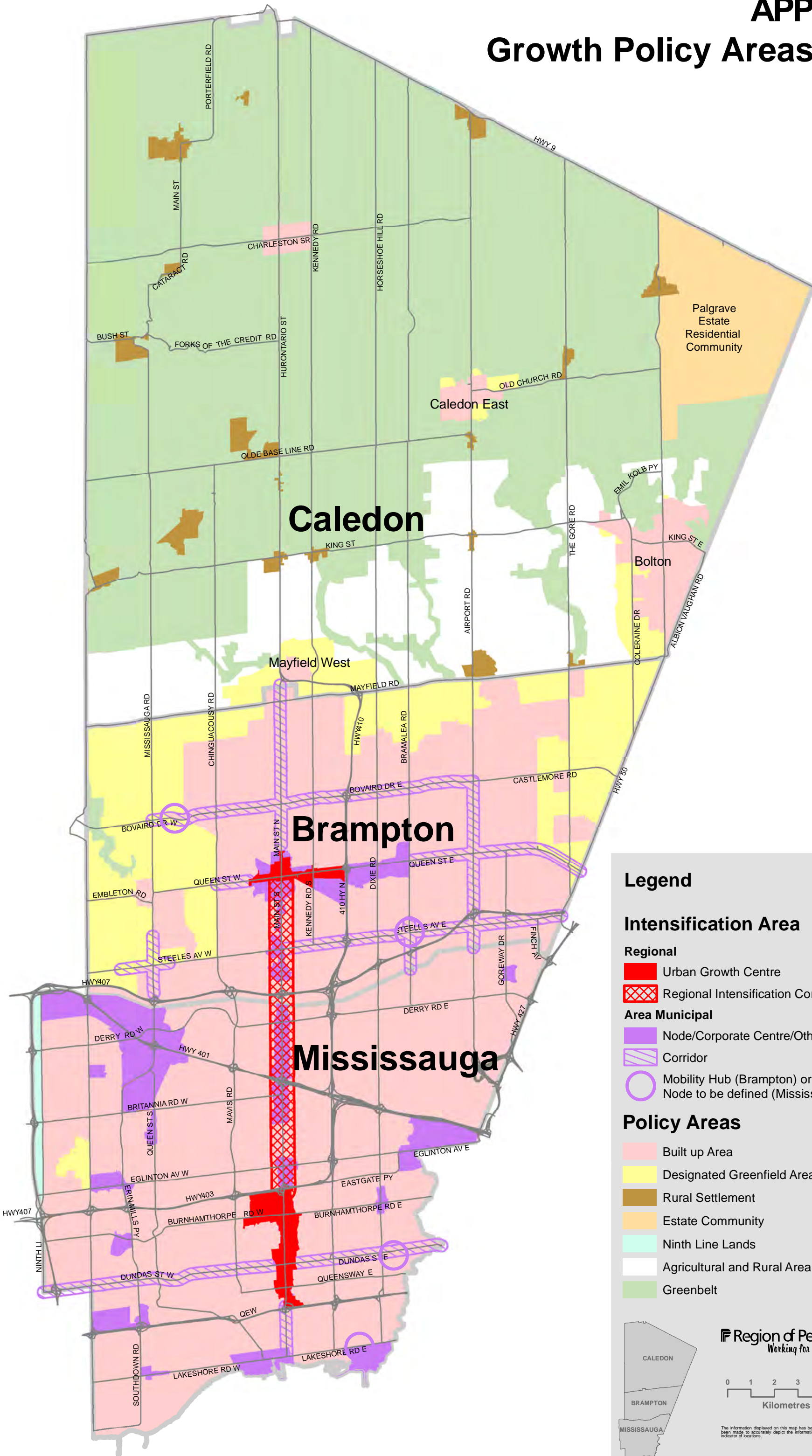
### Legend

Number of People and Jobs per Hectare

- <= 20.00
- 20.01 - 40.00
- 40.01 - 60.00
- 60.01 - 100.00
- 100.01 - 200.00
- > 200



# APPENDIX III Growth Policy Areas in Peel



### Legend

#### Intensification Area

- Regional**
  - Urban Growth Centre
  - Regional Intensification Corridor
- Area Municipal**
  - Node/Corporate Centre/Other Intensification Area
  - Corridor
  - Mobility Hub (Brampton) or Node to be defined (Mississauga)

#### Policy Areas

- Built up Area
- Designated Greenfield Area
- Rural Settlement
- Estate Community
- Ninth Line Lands
- Agricultural and Rural Area
- Greenbelt



The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations.



# Growth Management Strategy Update: Appendix III

## Total Population & Employment

Provisional Scenario - Population, Household and Employment Forecasts for Peel						
Municipality	2031			2041		
	Population	Households	Employment	Population	Households	Employment
Brampton	816,000	228,000	282,000	890,000	249,000	325,000
Caledon	117,000	37,000	49,000	145,000	47,000	80,000
Mississauga	837,000	278,000	528,000	935,000	311,000	565,000
<b>Peel</b>	<b>1,770,000</b>	<b>543,000</b>	<b>859,000</b>	<b>1,970,000</b>	<b>607,000</b>	<b>970,000</b>

## Places to Grow Targets

Major Growth Plan Targets for Peel					
Major Provincial Growth Plan Targets		Current Growth Plan (Amendment 2)	ROPA 24 (current Peel OP)	Proposed Growth Plan	Provisional Scenario
Population	2031	1,770,000	1,640,000	1,770,000	1,770,000
	2041	1,970,000	NA	1,970,000	1,970,000
Employment	2031	880,000	870,000	880,000	859,000
	2041	970,000	NA	970,000	970,000
Minimum Residential Intensification Rate <sup>1</sup> (%)	2015-2025	40	40	60	47
	2026-2031	40	50	60	52
	2032-2041	NA	NA	60	76
	2016-2041	NA	NA	60	59
Minimum DGA Density <sup>2</sup> (r&j/ha)		50	50	80	80
Minimum UGC Density (r&j/ha)		200	200	200	B-235/M-338

### Notes:

<sup>1</sup> - Proposed Growth Plan residential intensification rate of 60% is also applicable to Mississauga and Brampton

<sup>2</sup> - Proposed Growth Plan greenfield density target of 80 r&j/ha is applicable to non-prime employment areas

## Appendix III

## Population &amp; Employment Growth

Provisional Scenario - Projected Population and Employment Growth for Peel										
Municipality	2016		2041		2016-2041 Growth		2016-2041 Average Annual Growth			
	Population	Employment	Population	Employment	Population	Employment	Population		Employment	
							Residents	Percentage	Jobs	Percentage
Brampton	611,000	201,000	890,000	325,000	279,000	124,000	11,160	1.8%	4,960	2.5%
Caledon	69,000	27,000	145,000	80,000	76,000	53,000	3,040	4.4%	2,120	7.9%
Mississauga	753,000	475,000	935,000	565,000	182,000	90,000	7,280	1.0%	3,600	0.8%
<b>Peel</b>	<b>1,433,000</b>	<b>703,000</b>	<b>1,970,000</b>	<b>970,000</b>	<b>537,000</b>	<b>267,000</b>	21,480	1.5%	10,680	1.5%

## Housing Mix

Provisional Scenario - 2016-2041 Housing Growth by Type and Municipality							
Municipality	Housing Type	2016		2016-2041		2041	
		Number of Units	Percentage of Type	Number of Units	Percentage of Type	Number of Units	Percentage of Type
Brampton	<b>Total</b>	<b>168,690</b>	<b>100.0%</b>	<b>79,900</b>	<b>100.0%</b>	<b>248,590</b>	<b>100.0%</b>
	Singles and Semis	118,420	70.2%	40,930	51.2%	159,350	64.1%
	Towns	20,550	12.2%	17,750	22.2%	38,300	15.4%
	Apartments	29,720	17.6%	21,220	26.6%	50,940	20.5%
Caledon	<b>Total</b>	<b>21,280</b>	<b>100.0%</b>	<b>25,620</b>	<b>100.0%</b>	<b>46,900</b>	<b>100.0%</b>
	Singles and Semis	19,140	89.9%	15,310	59.8%	34,450	73.5%
	Towns	1,360	6.4%	6,090	23.9%	7,450	15.9%
	Apartments	780	3.7%	4,170	16.3%	4,950	10.6%
Mississauga	<b>Total</b>	<b>242,860</b>	<b>100.0%</b>	<b>68,620</b>	<b>100.0%</b>	<b>311,480</b>	<b>100.0%</b>
	Singles and Semis	127,230	52.4%	4,550	6.6%	131,780	42.3%
	Towns	36,940	15.2%	11,750	17.1%	48,690	15.6%
	Apartments	78,690	32.4%	52,320	76.3%	131,010	42.1%
<b>Peel</b>	<b>Total</b>	<b>432,830</b>	<b>100.0%</b>	<b>174,140</b>	<b>100.0%</b>	<b>606,970</b>	<b>100.0%</b>
	Singles and Semis	264,790	61.2%	60,790	34.9%	325,580	53.6%
	Towns	58,850	13.6%	35,590	20.5%	94,440	15.6%
	Apartments	109,190	25.2%	77,710	44.6%	186,900	30.8%