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<b>To:</b>	John Corbett ( <a href="mailto:john@corbettlandstrategies.ca">john@corbettlandstrategies.ca</a> )
<b>From:</b>	Lee Parsons ( <a href="mailto:lparsons@mgp.ca">lparsons@mgp.ca</a> ); Rohan Sovig ( <a href="mailto:rsovig@mgp.ca">rsovig@mgp.ca</a> )
<b>Date:</b>	June 25, 2020
<b>MGP File:</b>	17-2587
<b>Subject:</b>	<b>Potential Implications of the 2019 Growth Plan on the Land Needs Assessment on the Community and Employment Area Land Needs in Hamilton to 2041</b>

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The purpose of this memo is to provide an overview on the potential implications of 2019 Growth Plan on the Land Needs Assessment and to prepare a revised land needs assessment as it applies to the City of Hamilton accounting for the potential changes to the methodology.

It should be noted that the Province has released a proposed amendment to the 2019 Growth Plan that extends the planning horizon to 2051 with new Schedule 3 population and employment targets, which are clarified as minimum targets. The new Schedule 3 numbers project between 794,000 – 846,000 people in the City (an increase of 14,000 to 66,000 people from 2041). As a result, if these revisions proceed, it is anticipated that the land requirements as outlined in this memo, will increase. In conjunction, a high level Land Needs Assessment methodology has also been released for review and comment, which aligns with the current policy framework. The commenting period ends on July 31, 2020 for both documents. This memo has not been adjusted for these revisions and only reviews the current in-force policy context.

The 2019 Growth Plan states that the Minister of Municipal Affairs and Housing (“MMAH”) will, where appropriate, update a standard methodology for assessing land needs to implement the plan. The methodology is to be used by upper- and single-tier municipalities to assess the quantity of land needed to accommodate forecasted growth to the Growth Plan horizon (2041). The Land Needs Assessment was prepared in 2018 to provide a standardized approach on how to assess the land needed to accommodate population and employment growth targets in a manner that supports Growth Plan policy objectives.

In order to align with the 2019 Growth Plan, the Land Needs Assessment methodology is under review and a high-level version has been released for comment. This memo and land needs analysis reflects our best guess estimate prior to its release and is a high-level overview on how the methodology was to be revised. As it relates to the Land Needs Assessment, the following amendments are relevant:

- A new objective to match housing supply with market demand (Section 1.2 of the Growth Plan). This is also consistent with the draft 2019 Provincial Policy Statement (PPS), which updates Policy 1.1.1b to state:
  - *“Healthy, liveable and safe communities are sustained by accommodating an appropriate market-based range and mix of residential types (including single-detached, additional residential units, multi-unit housing, affordable housing and housing for older persons), employment (including industrial and commercial), institutional (including places of worship, cemeteries and long-term care homes), recreation, park and open space, and other uses to meet long-term needs”*[emphasis added]
- A density of 50 people and jobs per hectare is to be applied to the City of Hamilton’s Designated Greenfield Area, which is to be achieved within the horizon of the Plan (2041); and,

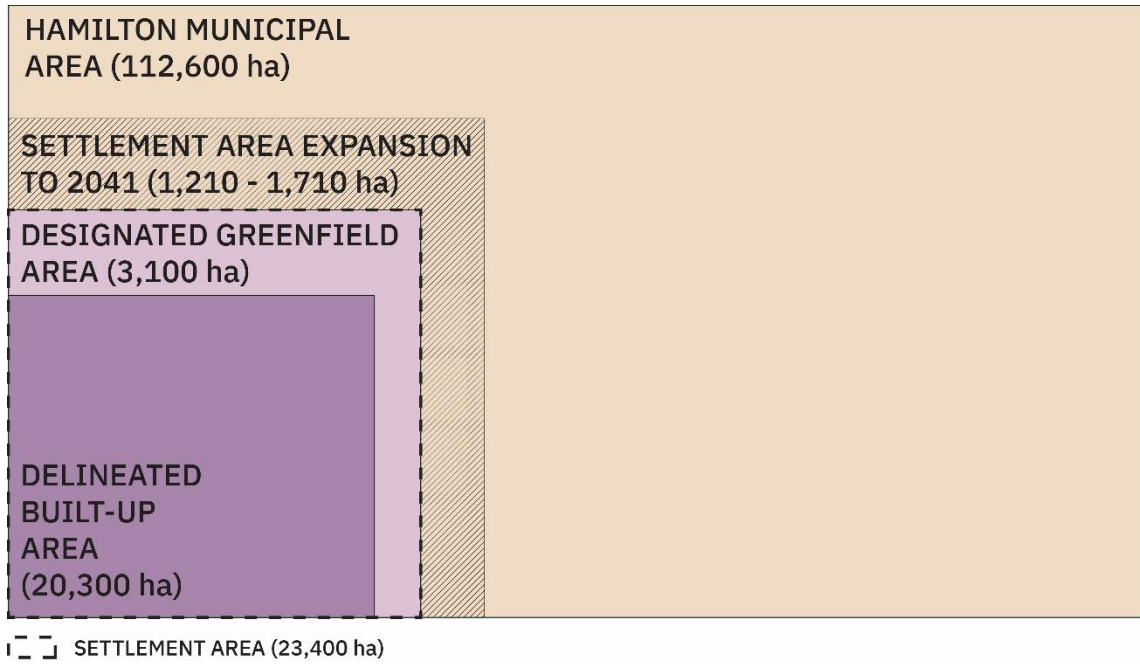
- A minimum intensification target of 50% is to be applied annually once the next Municipal Comprehensive Review is approved and in effect. The current target (40%) is to apply until then.

This revised assessment was our best estimate of how the new methodology was to change, however this assessment should be updated following the formal release with detailed steps.

### **Summary Conclusion**

- The result of the revised land needs analysis concludes that the total amount of new Greenfield land required to accommodate growth to 2041 is approximately 1,210 hectares. The methodology for the land needs analysis is our best estimate however it is subject to change based on the forthcoming revised Land Needs Assessment. It is also based on in force intensification and density targets from the Growth Plan.
- The City has noted through the initial stages of their Municipal Comprehensive Review process (GRIDS 2) that 50% is a suitable aspirational intensification target, but it is a high target that will require significant new development in the built-up area. This target will also be more difficult to achieve each subsequent year given that the current built boundary has been unchanged since 2006 and as such, there are less and less development opportunities within this area. The opportunities that do remain are becoming more difficult to develop and have longer development approvals process. As such, while this analysis assumes the Provincial intensification target, it is conservative given the historical intensification rates and the ability of the market to provide this level of intensification in the future assuming that the built boundary is not updated to reflect current on the ground realities (the Growth Plan contains supplementary direction that speaks to updating the built boundary as per Policy 5.2.2.1). The City has the option, through the Growth Plan to request an alternative target as per Policy 2.2.2.4.
- While 1,210 hectares is the theoretical required supply, this approach does not take into the market realities and its impact on the availability and cost of remaining supply. Not all identified supply gets developed and this can be due to a variety of reasons (lot size, access, marketability, partnership issues, family considerations, estate planning, cash demands of other businesses, appetite for risk, risk tolerance, borrowing capacity, ability to raise capital, cost of capital, cost of borrowing, etc.), however its impact to the supply side of the analysis is the same as prime supply. This has the effect of limiting the amount of new (less encumbered) lands that are required to accommodate forecasted growth as the land needs analysis somewhat artificially boosts available supply. As such, it is recommended that a buffer stock of 400 – 500 hectares of land be made available to account for remaining non-prime supply and to ensure the maintenance of a balanced market.
- In the past, there has been a view that the demand for residential land is driven by the growth in employment. However, given the regional nature of housing markets and the shifting requirements of employment (e.g. work from home), this linkage is being reversed to a certain extent. A major component of employment growth is in the service-based industry and these sectors require a labour force that can find affordable housing. As such, Hamilton's ability to attract future service employment including technology, communications, transportation, logistics and financial technology requires a continually available stock of a full spectrum of housing that is affordable to employees in these growing sectors.
- There is an oversupply of Employment Area land of approximately 245 hectares to 2041.
- Based on our preliminary assessment, up to 1,710 ha of settlement area expansion would be required to meet the growth targets to 2041 as shown in the figure below.

Figure 1: City of Hamilton Structure



## Overview of the Revised Land Needs Assessment

The Revised Land Needs Assessment is intended to assess land needs based on two different categories:

- **Community Areas:** Areas where the vast majority of housing required to accommodate forecasted population will be located, as well as the majority of population-related jobs, most office jobs, and some employment land employment jobs. Community Areas include Delineated Built-Up Areas and Designated Greenfield Area (excluding employment area);
- **Employment Areas:** Areas where most of the employment land employment (employment in industrial-type buildings) jobs are, as well as some office jobs, and some population-related jobs, particularly those providing services to the Employment Area. Employment Areas may be located in both Delineated Built-Up Areas and the Designated Greenfield Area; and,
- The population and employment forecasts in Schedule 3 of the Growth Plan provide the starting point for the land needs assessment. Population growth will only occur in Community Areas, but employment growth can occur in both Community Areas and Employment Areas.

### Community Area Land Needs

There are six main steps for determining the forecasted residential growth to the horizon of the 2019 Growth Plan (2041) and calculating the community area land needs requirement.

- Step 1** Establish the total population growth based on the 2016 Census and 2041 Growth Plan population forecast.
- Step 2** Determine a revised unit forecast to achieve the Growth Plan population forecast.
- Step 3** Allocate the residential units to the three policy areas: Delineated Built-Up Area, Designated Greenfield Area and Rural Area based on the minimum intensification rates from the 2019 Growth Plan by planning period (50% commencing once the MCR is assumed to be approved and in effect by 2024).
- Step 4** Determine the Greenfield unit supply to accommodate future growth.
- Step 5** Determine the amount of growth that will need to be accommodated in new Greenfield areas and calculate the land need requirement based on the unit mix.
- Step 6** Verify the Growth Plan density to ensure that compliance with the density targets of the Growth Plan.

### Employment Land Needs

Similarly, there are six main steps for determining the forecasted employment growth to the horizon of the 2019 Growth Plan (2041) and calculating the employment land needs requirement. These steps are a recast of the original Land Needs Assessment however this may be subject to change with the anticipated update.

- Step 7** Establish the employment growth target to the Proposed 2019 Growth Plan horizon (2041).
- Step 8** Determine the distribution of employment growth by type (major office<sup>1</sup>, population-related<sup>2</sup>, employment land<sup>3</sup>, and rural based<sup>4</sup>).

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*1 Major Office: includes all jobs occurring in free-standing office buildings of 20,000 square feet or more (1,960 m<sup>2</sup>)*

*2 Population-Related: includes all jobs that primarily serve a resident population including, but not limited to, retail, education, health care, local government and work at home.*

*3 Employment Land: includes jobs within settlement areas accommodated primarily in industrial-type buildings, the vast majority of which are located within business parks and industrial areas.*

*4 Rural-based: includes jobs dispersed throughout rural areas and includes agriculture and primary industries plus uses typically found in urban*

- Step 9** Determine the job growth by type in the Policy Areas (Delineated Built-Up Area, Designated Greenfield Area and Rural Area). The share of growth by employment type and by policy area is derived from previous work completed in the Hamilton Employment Land Area Budget Updated (dated 2009).
- Step 10** Determine the Job Growth within the Community Area by Delineated Built-Up Area and Designated Greenfield Area.
- Step 11** Determine the capacity of the Employment Area to accommodate the future growth target to 2041.
- Step 12** Determine the new Employment Area land need requirement by calculating the residual land supply demand of the existing land supply to the 2041 forecasted land supply need.

### Analysis of Hamilton's Land Needs Based on the 2019 Growth Plan Changes

The analysis that follows, shows the steps (1-6) to determine the future need for Community Areas, in other words, Community Area lands. The analysis also shows the calculation for future land needs for Employment Areas (7-12).

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*employment areas, but not located on urban land designated for industrial or commercial use.*

## Community Area Analysis

### Step 1: Establish Population Growth

**Table 1: Hamilton Population Growth to 2041**

POPULATION			
	2016 <sup>1</sup>	2041	Difference
Census Population	536,917	751,140	214,223
Household Population	527,930	738,596	210,666
Non-Household Population <sup>2</sup>	8,987	12,544	3,557
Net Undercount <sup>3</sup>	3.70%	3.70%	
<b>Total Population</b>	<b>557,546</b>	<b>780,000<sup>4</sup></b>	<b>222,454</b>

#### Notes

1 – Statistics Canada, 2016 Census Profile

2 – Assumed a rate of 1.67% of Census Population based on the 2011 Census non-household population.

3 – Sourced from 2016 Census net undercount rates. Carried forward to 2041.

4 – Total population for 2041 was sourced from Schedule 3 of the 2019 Growth Plan.

Table 1 uses the 2016 Census population as a base year and the growth forecast in Schedule 3 of the 2019 Growth Plan. This table provides a starting point for determining forecasted population growth and the required population needed to achieve the 2041 population target. It is assumed that the undercount and the non—household population rate from the 2016 Census for the City of Hamilton is applied to 2016 and beyond (3.7% and 1.67% respectively).

### Step 2: Determine a Revised Unit Forecast to Achieve Population Target

**Table 2: Hamilton Household Forecast to 2041**

REVISED UNIT FORECAST TO ACHIEVE POPULATION TARGET					
	Singles	Semis	Rows	Apartments	Total
Revised Unit Growth	21,500	2,500	24,200	42,000	90,200
Revised Unit Growth Mix (%)	24%	3%	27%	47%	100%
PPU	3.41	3.41	2.44	1.66	
Household Population Growth	73,208	8,513	58,975	69,846	210,541
Non-Household Population Rate	1.67%	1.67%	1.67%	1.67%	1.67%
Non-Household Population	1,223	142	985	1,166	3,516
Census Population	74,430	8,655	59,960	71,012	214,057
Undercount Rate	3.70%	3.70%	3.70%	3.70%	3.70%
<b>Total Population</b>	<b>77,290</b>	<b>8,987</b>	<b>62,264</b>	<b>73,741</b>	<b>222,282</b>

#### Notes

1 – PPU derived from 2019 DC Background Study

2 – Assumed a rate of 1.67% of Census Population based on the 2011 Census non-household population.

3 – Sourced from 2016 Census net undercount rates. Carried forward to 2041.

Given the new objectives by the 2019 Growth Plan and the draft 2019 PPS to match housing supply with market demand and the Growth Plan requirement to achieve the population target, a revised unit mix is required to be applied. This housing mix is more reflective of market demands while still achieving the Growth Plan objectives of a more compact built-form and also reflects the constraints of directing growth to the built boundary, where there are limited opportunities for family-oriented housing. Given this, market demand must be redistributed to higher density housing forms (rows and apartments), while still providing for a complete community including family-oriented housing within the Designated Greenfield Area. The remaining units are allocated to the Greenfield areas.

Table 2 translates the forecasted housing unit growth into total population. Similar to Table 1 above, we carried forward the non-household population rate and the undercount rate to calculate the total population. The key part of this step is to generally match the total population growth based on the Growth Plan 2041 forecast (222,454) with the forecasted population growth based on the revised unit mix (222,282) in accordance with the Growth Plan.

### Step 3: Allocate Residential Units by Policy Area & Planning Period

**Table 3: Hamilton Household Forecast by Policy Area**

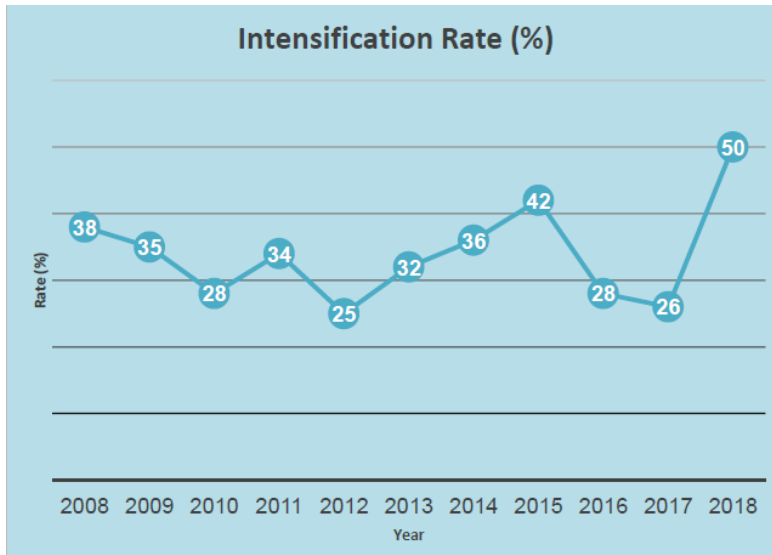
DISTRIBUTION OF UNITS BY POLICY AREA					
2016-2022	Singles	Semis	Rows	Apts	Total
Inside Built Boundary (40%)	290	87	1,500	6,782	8,659
% Units	3%	1%	17%	78%	100%
Outside Built Boundary (59.5%)	6,348	663	5,744	2,225	14,980
% Units	42%	4%	38%	15%	100%
Rural Area (0.5%)	108	-	-	-	108
% Units	100%	0%	0%	0%	100%
2023-2041					
Inside Built Boundary (50%)	920	343	4,750	28,264	34,276
% Units	3%	1%	14%	82%	100%
Outside Built Boundary (49.5%)	13,491	1,408	12,206	4,729	31,833
% Units	42%	4%	38%	15%	100%
Rural Area (0.5%)	343	-	-	-	343
% Units	100%	0%	0%	0%	100%
<b>Total Distribution</b>	<b>21,500</b>	<b>2,500</b>	<b>24,200</b>	<b>42,000</b>	<b>90,200</b>
<b>Built Boundary Demand</b>	<b>1,210</b>	<b>429</b>	<b>6,250</b>	<b>35,046</b>	<b>42,935</b>
<b>Greenfield Unit Demand</b>	<b>19,839</b>	<b>2,071</b>	<b>17,950</b>	<b>6,954</b>	<b>46,814</b>
<b>Greenfield Unit Mix</b>	<b>42%</b>	<b>4%</b>	<b>38%</b>	<b>15%</b>	<b>100%</b>

Next, Table 3 forecasts household growth by planning periods by unit type. The forecast periods shown in Table 3 reflect the changes in intensification targets for new development that is required under the 2019 Growth Plan. It is assumed that a small portion of the growth will go towards the Rural Area to reflect the limited growth potential in Rural Areas (in this case we have assumed 0.5% consistent with the current Land Needs Assessment). We have also assumed that the built boundary has the capacity to accommodate approximately 250 row dwellings a year. While this is higher than the historical average (~155/yr since 2006), we believe there will be greater pressure to redevelop singles/semis to townhomes or gently intensify underutilized apartment sites going forward. The residual growth is distributed to the Designated Greenfield Area. For reference, the following are the planning periods used in this analysis:

- 2016 – 2022: this is the period from the Census to the completion of the Municipal Comprehensive Review (MCR). For the purposes of this analysis, we have assumed this is 2022. During this period, the minimum intensification target is 40%; and,
- 2023 – 2041: this is the period from the completion of the MCR to 2041. During this period, the minimum intensification target is 50% for the City of Hamilton.

It should be noted that the City has only twice achieved an intensification rate of over 40% and has averaged between 30% to 40% intensification since 2008, as shown in the figure below.

*Figure 2: Historic Rates of Intensification in the City of Hamilton*



Source: Planning and Economic Development, City of Hamilton

The City has noted through the initial stages of their Municipal Comprehensive Review process (GRIDS 2) that 50% is a suitable aspirational intensification target, but it is a high target that will require significant new development in the built-up area. This target will also be more difficult to achieve each subsequent year given that the current built boundary has been unchanged since 2006 and as such, there are less and less development opportunities within this area. The opportunities that do remain are becoming more difficult to develop and have longer development approvals process. As such, while this analysis assumes the Provincial intensification target, it is conservative given the historical intensification rates and the ability of the market to provide this level of intensification in the future assuming that the built boundary is not updated to reflect current on the ground realities (the Growth Plan contains supplementary direction that speaks to updating the built boundary as per Policy 5.2.2.1). The City has the option, through the Growth Plan to request an alternative target as per Policy 2.2.2.4.

**Step 4: Determine the Greenfield Unit Supply to Accommodate Future Growth**

**Table 4: Greenfield Unit Supply**

GREENFIELD UNIT SUPPLY					
	Singles	Semis	Rows	Apartments	Total
Ancaster	1,232	157	1,280	319	2,988
Dundas	0	0	0	0	0
Flamborough	1,151	398	1,069	2,512	5,130
Fruitland-Winona	1,220	146	4,612	807	6,784
Glanbrook	1,712	43	1,599	45	3,399
Hamilton	1,176	88	1,005	311	2,580
Stoney Creek	1,534	120	2,992	887	5,532
<b>Total Greenfield Supply</b>	<b>8,024</b>	<b>952</b>	<b>12,556</b>	<b>4,881</b>	<b>26,412</b>

MGP conducted a high-level GIS inventory of the City’s planned greenfield supply to understand the current supply. The supply focused on the DGAs and categorized into areas within active development applications and areas that are vacant and have a residential official plan designation.

Lots within these active development applications that have been developed are excluded. An estimate of the dwelling unit potential on Vacant lands is based on the Official Plan designation. The supply estimates exclude natural areas and features. Based on the existing Greenfield supply, the units that will be required to be accommodated on new Greenfield areas can be calculated.



Step 5: Determine the Community Area Land Needs**Table 5: Greenfield Unit Requirement**

GREENFIELD UNIT REQUIREMENTS TO 2041					
	Singles	Semis	Rows	Apartments	Total
Greenfield Unit Demand	19,839	2,071	17,950	6,954	46,814
Total Greenfield Supply	8,024	952	12,556	4,881	26,412
<b>New Greenfield Unit Requirement</b>	<b>11,815</b>	<b>1,118</b>	<b>5,394</b>	<b>2,074</b>	<b>20,401</b>

Next, the Greenfield unit growth is compared to the Greenfield supply and shortage/surplus of units are identified by unit type, as shown in Table 5.

**Table 6: Greenfield Land Requirement**

GREENFIELD LAND REQUIREMENT TO 2041					
	Singles	Semis	Rows	Apartments	Total
Greenfield Unit Requirement	11,815	1,118	5,394	2,074	20,401
<i>Net Density (units per hectare)</i>	<i>30</i>	<i>33</i>	<i>75</i>	<i>240</i>	
Net Land Requirement (ha.)	394	34	72	9	508
Net to Gross Requirement (42%)	938	81	171	21	1,210
<b>Total Greenfield Land Requirement</b>					<b>1,210</b>

An appropriate net density factor is applied to the unit shortfall by type to identify the net land area requirement to reflect current housing demand. This analysis only assumes a marginal number of apartment units be located in greenfield areas. The higher density for row units anticipates the increasing popularity of stacked and/or back-to-back townhouses that can have typical net densities of 80-100 units per hectare. As such, this is a conservative estimate. The MGP analysis additionally applied a net-to-gross factor of 42%. As communities become denser, the requirement for public amenities (and other non-residential land intensive uses) must increase in tandem to service the increased number of residents. The 42% net residential developable area is a ratio used by MGP in other analyses.

Step 6: Verify Growth Plan Density**Table 7: Density Analysis**

DENSITY ANALYSIS					
	Singles	Semis	Rows	Apartments	Total
Greenfield Unit Requirement	11,815	1,118	5,394	2,074	20,401
PPU	3.41	3.41	2.44	1.66	
<b>Total Greenfield Population (incl. undercount)</b>	<b>41,720</b>	<b>3,949</b>	<b>13,632</b>	<b>3,576</b>	<b>62,877</b>

	Total Persons & Jobs	Gross Land Area	Gross Density
Existing Designated Greenfield Area	133,430	2,260	59
New Designated Greenfield Area	74,991	1,210	62
Overall Designated Greenfield Area	208,420	3,470	60

The final step is to determine if the new Greenfield expansion area achieves the Growth Plan density target of 50 residents and jobs combined per hectare. This is calculated by estimating the full population and employment of the new Greenfield expansion area and dividing it by its gross developable area. In order to calculate the total residents and jobs, a work at home rate of 2.6% is applied, and population related jobs are included (at a rate of one job per 6 people) to get a total residents and jobs of 74,991.

As shown in the table above, both the City's existing Greenfield area is planned to exceed the Growth Plan target of 50 residents and jobs combined per hectare, as well as the new expansion area (at a density of 62 residents and jobs per hectare)

**Buffer Stock**

While a residential land needs analysis is an important tool in determining how much land is theoretically required to accommodate forecasted population growth, this approach does not take into the market realities and its import on the availability and cost of remaining supply. The idea of maintaining a buffer stock of available designated land is not a new concept and is in fact stated in the Provincial Policy Statement ("PPS"). Section 1.4.1(a) and (b) of the PPS states:

- a) *Maintain at all times the ability to accommodate residential growth for a minimum of 15 years through residential intensification and redevelopment and, if necessary, lands which are designated and available for residential development; and,*
- b) *Maintain at all times where new development is to occur, land with servicing capacity sufficient to provide at least a three-year supply of residential units available through lands suitably zoned to facilitate residential intensification and redevelopment, and land in draft approved and registered plans.*

With each subsequent land needs analysis, the potential land available for development re-incorporates land supply that was not taken up from the prior analysis. Not all identified supply gets developed and this can be due to a variety of reasons (lot size, access, marketability, partnership issues, family considerations, estate planning, cash demands of other businesses, appetite for risk, risk tolerance, borrowing capacity, ability to raise capital, cost of capital, cost of borrowing, etc.). This has the effect of limiting the amount of new (less encumbered) lands that are required to accommodate forecasted growth as the land needs analysis somewhat artificially boosts available supply. For these reasons, all planned and designated supply does not actually proceed to development within the planning horizon and therefore a supply buffer is appropriate and necessary.

While the land needs analysis meets the literal objective of the PPS, it does not meet its actual intent and hinders the actual achievement of the population targets as specified in the Growth Plan. The buffer stock policies of the PPS are meant to keep the market balanced with choice and thus maintain affordability. Maintaining a constant “15 year supply” up to and including the 2041 forecast period is necessary to meet the targets as well as to achieve the social and economic goals of Hamilton.

While the MGP analysis, on a pure number allocation exercise identifies the need for 1,210 hectares of expansion land to theoretically accommodate growth to 2041, it is recommended that an additional 400-500 hectares of land be made available to account for remaining non-prime supply and to ensure the maintenance of a balanced market. The 1,210 hectares of additional expansion land is the “theoretical” additional supply required to accommodate growth to 2041, however if a constant 15 plus year supply were to be made available, a simplistic approach of including an additional 400-500 ha of land (representing a ~5 year buffer) would provide the “actual” supply necessary to maintain long-term market balance.

### **Residential Development as a Driver of Employment Growth**

In the past, there has been a view that the demand for residential land is driven by the growth in employment. However, given the regional nature of housing markets and the shifting requirements of employment (e.g. work from home), this linkage is being reversed to a certain extent. A major component of employment growth is in the service-based industry and these sectors require a labour force that can find affordable housing. As such, Hamilton’s ability to attract future service employment including technology, communications, transportation, logistics and financial technology requires a continually available stock of a full spectrum of housing that is affordable to employees in these growing sectors.

## Employment Area Analysis

### Step 7 & 8: Establish Employment Growth by Type to 2041

**Table 9: Employment by Type**

Planning Period	Major Office	Population-Related	Employment Land	Other Rural Based	Total
2016	18,535	108,900	119,655	6,540	<b>253,630</b>
2041	38,750	145,410	158,680	8,440	<b>351,280</b>
Growth 2016 - 41	20,215	36,510	39,025	1,900	<b>97,650</b>
<b>Share of Growth</b>	<b>20.7%</b>	<b>37.4%</b>	<b>40.0%</b>	<b>1.9%</b>	<b>100.0%</b>

**Source**

*Growth Plan Technical Report Addendum dated June 2013 prepared by Hemson*

Table 9 utilizes Hemson data (as part of the Growth Plan Technical Report Addendum dated June 2013) to illustrate the growth of employment by types from 2016 - 2041. It should be noted that the Hemson data did not include 2016 data. In order to estimate the 2016 employment numbers, the midpoint between the 2011 and 2022 was used.

### Step 9: Determine Job Growth by Type by Policy Area

**Table 10: Employment Growth by Type by Policy Area**

Planning Period	Major Office	Population-Related	Employment Land	Other Rural Based	Total
<b>Employment in Employment Area</b>					
2016	35.0%	5.0%	95.0%	0.0%	
	6,487	5,445	113,672	0	125,605
2041	34.0%	5.0%	95.0%	0.0%	
	13,175	7,271	150,746	0	171,192
<b>Employment in Community Area</b>					
2016	65.0%	92.0%	0.0%	0.0%	
	12,048	100,188	0	0	112,236
2041	66.0%	92.5%	0.0%	0.0%	
	25,575	134,504	0	0	160,079
<b>Employment in Rural Area</b>					
2016	0.0%	1.0%	5.0%	100.0%	
	0	1,089	5,983	6,540	13,612
2041	0.0%	1.0%	5.0%	100.0%	
	0	1,454	7,934	8,440	17,828

**Sources**

*1 - Growth Plan Technical Report Addendum dated June 2013 prepared by Hemson*

*2 - Hamilton Employment Area Land Budget Update dated September 2009 prepared by Hemson*

The next step allocates employment growth by land-use employment category to Rural Areas, Community Areas, and Employment Areas. The share of growth by employment type is derived from the 2009 Employment Area Land Budget prepared by Hemson. It should be noted that growth within the rural area is minor and does not impact the employment land requirements.

**Step 10: Determine Job Growth within Community Area**

This step relies on municipalities to complete an intensification and employment analysis as part of a MCR. As one has yet to be completed by the City of Hamilton, it has been assumed that the share of employment in the Designated Greenfield Area is 20% and the share of the employment in the BUA is 80%. As noted earlier, the employment estimates for the Designated Greenfield Area are used as inputs in the residential analysis in order to determine the jobs component of the people and jobs density calculation.

**Table 11: Distribution of Employment Jobs in Community Areas**

Planning Period	Major Office	Population-Related	Employment Land	Other Rural Based	Total Employment in Community Area
<b>Employment in Community Area</b>					
2016	12,048	100,188	-	-	112,236
2041	25,575	134,504	-	-	160,079
Growth 2016-41	13,527	34,316	-	-	47,844
<b>Employment in DGA</b>					
2016	2,651	22,041	-	-	24,692
2041	5,627	29,591	-	-	35,217
Growth 2016-41	2,976	7,550	-	-	10,526
<b>Employment in BUA</b>					
2016	9,397	78,147	-	-	87,544
2041	19,949	104,913	-	-	124,862
Growth 2016-41	10,551	26,767	-	-	37,318

### Step 11 & 12: Determine Capacity of the Existing Employment Area and the Land Need Requirement

The purpose of this final step will be to compare the planned capacity of employment areas at the Growth Plan horizon with the total number of jobs anticipated in employment areas over the planning period. The result of this step will determine whether there is a surplus or a shortage of employment area needed to accommodate forecasted employment growth to the Growth Plan horizon.

**Table 12: Employment Area Land Need**

Planning Period	Total Employment in Employment Area
2016	125,605
2041	171,192
Growth 2016-41	45,587
<hr/>	
Density (jobs/ha)	42.0
EMP Land Demand to 2041 (ha)	4,076
EMP Land Supply	4,321
<b>EMP Land Need</b>	<b>-245</b>
Job Growth Capacity	181,482

**Sources**

- 1 - Based on splitting the Hemson forecast between 2011 and 2021. Required 2016 Census employment information is not yet available.
- 2 - Based on current occupied employment land densities subject to 2016 Census when available.
- 3 - MGP GIS Data (2018)

Table 12 illustrates the total employment area land need by dividing the total employment area jobs at 2041 by the employment area density. The Land Needs Assessment requires municipalities to determine the employment areas density target as part of the Employment Strategy however this has not been completed. We have assumed the density of Employment Lands will stay the same through to 2041. As such, the employment area density was derived by dividing the 2016 employment in Employment Areas (125,605) by the current occupied employment land in Hamilton (3,018 ha), which results in a gross density of 42 jobs per hectare.

Following this, the employment area land need is subtracted from the existing employment area land supply, which results in an oversupply of employment area land need of ~245 hectares to 2041.