Growth Plan Target-Based Versus Market-Demand Land Needs Assessments

A Review of the Competing Land Needs Assessments
Presented at the 2012 Region of Waterloo Official Plan
Ontario Municipal Board Phase 1 Hearing

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EXECUTIVE SUMMARY

Over the past several months there have been on-going discussions about moving back to market-demand based land needs assessments in areas governed by *Places to Grow: Growth Plan for the Greater Golden Horseshoe, 2006*. Proponents of this change claim the current target-based process overly restricts the amount of land available to build single-detached homes, with the result being that demand exceeds availability for such units, thereby causing prices to rise to a level no longer affordable for many potential buyers. This paper seeks to address a key question before any such change is made: Does a market-demand approach effectively anticipate trends in today's rapidly changing housing market?

In June 2012, the Ontario Municipal Board, currently known as the Local Planning Appeal Tribunal, heard evidence from a group of appellants (Developer Group) and the Region of Waterloo regarding the quantum of land needed to accommodate growth between 2006 and 2031. This paper compares actual housing construction to the end of 2019 with the housing forecasts prepared in support of the competing land needs assessments (land budgets) presented at the Hearing.

The land needs assessments presented in the Region of Waterloo Official Plan Hearing were prepared using two distinctly different methodologies. The consultants for the Developer Group used a market-demand methodology that produced two housing-by-type forecasts, one based entirely on demographics and historic market-demand (the market-demand forecast), and a second that adjusted the market-demand forecast to provide the opportunity to meet the applicable intensification targets (the adjusted market-demand forecast). The Region of Waterloo used a *Growth Plan* target-based methodology, which doesn't overtly require the preparation of a housing-by-type forecast. However, some consideration of dwelling types was necessary to determine the persons-per-unit assumptions used to distribute population between the Built-up Area and the Designated Greenfield Area. This resulted in forecasts that can be directly compared at the same level of granularity and assessed against building permit data for the Region of Waterloo from 2006 and 2019, looking specifically at the percentages of single/semi-detached, townhouse and apartment units built during this time period.

Whereas the target-based housing forecast used to validate population distribution assumptions in the Region of Waterloo land budget was within two percentage points across all three types of actual construction, the Developer Group market-demand forecast failed to anticipate significant shifts that occurred in the housing market, overestimating the percentage of single-detached units (60.9 verses 36.4 percent actual construction to date) and underestimating apartments (21.2 verses 45.9 percent). The Developer Group's adjusted market-demand forecast outperformed the market-demand forecast, but not to the level achieved in the target-based forecast. The adjusted market-demand forecast is essentially a hybrid between the target-based and market-demand methodologies, with the improved performance relative to the market-demand forecast being directly attributable to the *target-based* adjustments made to accommodate the mandated intensification target.

This paper then examines a number of demographic and housing choice factors to consider whether the manifest percentage decline in single-detached units represents a longer term trend. The paper concludes that although some factors examined could turn out to be short-lived

phenomena, the sheer number of Baby Boomers who will vacate single-detached units over the next twenty to thirty years, either by choice or necessity, will continue to suppress the need for *new* single-detached units for the foreseeable future.

In preparing the market-demand housing forecast in 2012, consultants for the Developer Group used a trends-based analysis over a lengthy period of time (1971 to 2006) to establish market demand. In implementing their methodology, however, the consultants failed to account for a relatively consistent decline, beginning in 1998, in the percentage of single-detached units being built in the Region of Waterloo.

Does the failure of the market-demand approach in this instance necessarily mean, then, that target-based methodologies are better for predicting future housing construction? Unfortunately, many of the issues that led to the need to change how planning was being done in the Greater Golden Horseshoe still persist today, making it unwise to rely on a historic market-demand analysis to predict the housing needs of the future. The 2006 *Growth Plan* addressed these challenges through a different approach to modelling, one in which the resulting target-based land needs assessments were proactively supportive of policy objectives rather than merely reflective of apparent historical norms.

The paper concludes, however, that target-based land needs assessments are only as good as the targets selected and the on-going efforts to achieve them. The use of a target-based land needs assessment works well as part of a complete package. Simply setting targets does not ensure success. Targets need to be carefully selected, closely monitored and supported by effective measures that help facilitate the desired change. In the Region of Waterloo, those measures included implementation of a brownfield financial incentive program, waiver of development charges in core areas, pre-zoning of nodes and corridors by local municipalities, and ultimately, construction of the ION light rail transit system.

INTRODUCTION

On June 16, 2006, the Province of Ontario brought into effect *Places to Grow: Growth Plan for the Greater Golden Horseshoe, 2006* (2006 *Growth Plan*). The 2006 *Growth Plan* was part of a broader package of reform initiatives intended to change how planning for growth was to occur in the Greater Golden Horseshoe (GGH). One of the key policy changes introduced through the 2006 *Growth Plan* was a requirement that settlement area expansions be based on the implementation of specified intensification and density targets, rather than the traditional process of simply accommodating market-demand.

Over the past several months, there have been on-going discussions about moving back to the market-demand approach. Proponents of this change claim the target-based process overly restricts the amount of land available to build single-detached homes, with the result being that demand exceeds availability for such units, thereby causing prices to rise to a level no longer affordable for many potential buyers.

This paper seeks to address a key question before any such change is made: Does a market-demand approach appropriately reflect trends in today's rapidly changing housing market? To

shed light on the question, this paper compares actual housing construction in the Region of Waterloo since the coming into force of the 2006 *Growth Plan* with the competing market-demand and target-based forecasts presented at the June 2012 Region of Waterloo Official Plan Ontario Municipal Board (OMB) Phase 1 Hearing.

BACKGROUND

Identification of the Need to Do Things Differently

By the early 2000s, it had become apparent that social and economic conditions were changing in the GGH. Change was occurring for many reasons, including:

- the aging of the Baby Boomers
- the improved health of seniors, leading to longer lives and longer retirements
- a tendency for younger people to delay starting a family
- economic challenges faced by young people with school-related debt
- changing lifestyle choices being made by people of all ages
- the increased costs of commuting, both financially and time wise
- a need to use infrastructure and resources more wisely

These factors influence how and where people live, suggesting historical patterns of residential growth may not reflect the needs of tomorrow.

Residential development during the last half of the twentieth century focused primarily on construction of housing to accommodate Baby Boomers. Through the 1950s and 1960s, the parents of Baby Boomers sought places to raise their burgeoning families, resulting in expansive new suburbs dominated by single-detached dwellings. The 1970s saw a shift to the creation of apartments, especially high rises, as Baby Boomers began to leave home. Inevitably, this was followed by a significant increase in the need for more single-detached units as Baby Boomers started families of their own. Demand for this type of housing peaked in the Region of Waterloo in 1998, when 78 percent of all residential units built were single-detached units.

The impact on the overall mix of housing caused by accommodation of the Baby Boom generation raised several questions. Was this form of residential development sustainable in the long-term? And, was it aligned with the future needs of the community? By the late 1990s, it became obvious that the answer to both these questions was no, with this becoming a key motivator in the introduction of new planning initiatives at both the provincial and municipal levels.

In February 2002, the Ontario Minister of Municipal Affairs and Housing appointed the Central Ontario Smart Growth Panel to help develop a long-term strategy to address challenges being experienced in the GGH. The Panel's final report, *Shape the Future* (April 2003), became the basis for a series of planning reforms intended to change how growth would be managed in the Province. These reforms included the passing of the *Places to Grow Act, 2005,* authorizing preparation of growth plans for various areas of the province, and amendments to the *Planning Act,* ensuring planning decisions within these areas conformed with these plans. On June 16, 2006, the Province brought into effect the 2006 *Growth Plan* to guide planning in the GGH.

The 2006 *Growth Plan* Policy Framework

Chapter 2 of the 2006 *Growth Plan* established key objectives for a new land needs assessment process:

> "Better use of land and infrastructure can…be achieved by building more compact greenfield communities that reduce the rate at which land is consumed. Communities will need to grow at transit-supportive densities, with transit-oriented street configurations. Compact urban form and intensification efforts go hand in hand with more transit: not only do they support each other, they are all necessary. …
>
> It is important to optimize the use of the existing land supply to avoid over-designating new land for future urban development. This Plan's emphasis on intensification and optimizing the use of the existing land supply represents a new approach to city-building in the GGH, one which concentrates more on making better use of our existing infrastructure, and less on continuously expanding the urban area." (2006 *Growth Plan* section 2.1)

The 2006 *Growth Plan* addressed the need to reduce sprawl and ensure a more balanced provision of housing opportunities, in part, by separating determination of the need for settlement area expansions (land needs assessment) from determination of the range of housing to be provided within communities (housing strategy). These were two distinct processes laid out in the 2006 *Growth Plan* policies (see Appendix A) to be undertaken in the following order:

- determination of the amount of land required "**using the intensification target and density targets**" [emphasis added] (policy 2.2.8.2)
- determination of the appropriate mix of housing on the available land as determined by implementation of Policy 2.2.8.2 through the preparation of a housing strategy "**to support the achievement of the intensification target and density targets.**" [emphasis added] (policy 3.2.6.6).

The 2006 *Growth Plan* does not require municipalities to produce a housing-by-type forecast as part of the land needs assessment process. Housing-by-type forecasts were instead to be developed as part of the preparation of a housing strategy.

Land Needs Assessments – Then and Now

Land needs assessments (also known as land budgets) have been used by municipalities to determine the need for settlement area expansions for decades. The preparation of these documents was formalized in 1995 when the Province published the *Projection Methodology Guideline* (*PMG*). The *PMG* was developed to guide implementation of the *Comprehensive Set of Policy Statements*, the mid-1990s equivalent of today's *Provincial Policy Statement* (*PPS*). The *PMG* methodology is sometimes referred to as a 'market-demand' land needs assessment.

A market-demand approach relies on the assumption that it is possible to predict the percentage of people that will occupy various types of housing units in the future, and then uses this information to determine the need for expansions to settlement areas. To do this, a demographic

and market analysis is completed to determine the historic propensity of the population to occupy various forms of housing. These propensities are then projected onto the forecast population to determine the number of each type of unit required within the planning period.

If change was going to be made in the way planning for growth was to occur in the GGH, a market-demand approach that far too often simply delivered more of the same was no longer an option. The Province sought to implement three key objectives of the 2006 *Growth Plan* through the change from market-demand land needs assessments to target-based ones:

- reducing urban sprawl by requiring capacity in existing settlement areas, including Built-up Areas (BUAs), to be appropriately utilized before consideration was given to expansions of settlement areas
- ensuring that existing infrastructure was utilized to the fullest extent possible before services were extended to new areas
- ensuring densities in the Designated Greenfield Area (DGA) were high enough to support early introduction of transit.

How Market-Demand Land Needs Assessments Work

The initial step in a market-demand land needs assessment is to convert the forecast population increase into a demand for housing units of an unspecified type. The number of each type (single-/semi-detached, townhouses and apartments) is then determined based on the demographic characteristics of the forecast population and historic market analysis. Minor adjustments may then be made to the resulting housing mix (typically reducing the number of single-detached units in favour of additional apartments) to provide the opportunity to address affordability or intensification targets[1]. This represents the demand side of the equation.

An inventory of vacant land within the existing settlement area is then prepared based on assumptions about the suitability of such land to accommodate various forms of housing. This inventory is used to determine how much of each type of housing can be accommodated within the existing settlement area. This represents the supply side of the equation.

Then, for each type of housing, demand is independently compared to supply, and whenever there is a shortfall of land *for any type*, an expansion to the settlement area is required to alleviate that specific shortfall. In other words, a market-demand land needs assessment is not based on the assumption that the full capacity of the existing settlement area will be used within the planning period. Rather, an expansion to a settlement area is permitted to resolve a projected shortfall for one type of housing (typically single-detached units) despite there potentially being excess capacity for other types (townhouses or apartments).

Nor does the market-demand land needs assessment process assume the full capacity of the proposed expansion area will be utilized within the planning period. For example, where an

[1] Adjusting the market-demand forecast to provide the opportunity to meet intensification targets does not necessarily presume these targets will actually be met. The market-demand methodology permits inclusion of land in the DGA to accommodate apartment units not required within the planning period, but otherwise needed to support ultimate achievement of a mix of housing types, affordable housing requirements and minimum density targets. As a result, any excess capacity for apartment units available in the DGA competes directly with apartment sites in the BUA intended to accommodate required intensification.

expansion is proposed to alleviate a shortfall in single-detached units, enough land is provided in the expansion area not only to alleviate the shortfall in such units, but also for other forms of housing as required to ensure that a mix of housing types, affordable housing requirements and any minimum density targets can ultimately be achieved. A market-demand land needs assessment mirrors historic patterns of growth with minor modifications to accommodate desired policy outcomes, but not necessarily within the planning period. Appendix B contains a sample market-demand land needs assessment, intended to illustrate the process.

How *Growth Plan* Target-Based Land Needs Assessments Work

The initial determination of a *Growth Plan* target-based assessment is the amount of growth (units and population) that can be accommodated within the existing settlement area assuming the intensification and density targets of the *Growth Plan* are achieved within the planning period. This represents the supply side of the equation.

Forecast population is then converted to housing units, and an average persons-per-unit value for development within the BUA is established, thereby facilitating distribution of units and forecast population between the BUA and DGA. This represents the demand side of the equation.

Supply is then compared to demand, assuming full use of capacity in the existing settlement area, to determine if a settlement area expansion is required. A *Growth Plan* target-based assessment also assumes that the entire capacity of the expansion area is used within the planning horizon, thereby fully reconciling supply with demand. A target-based methodology presumes achievement within the planning period of the desired policy outcomes associated with the targets. Appendix C contains a sample *Growth Plan* target-based land needs assessment, intended to illustrate the process.

REGION OF WATERLOO OFFICIAL PLAN OMB PHASE 1 HEARING

On June 16, 2009, Region of Waterloo Council adopted the new Regional Official Plan. Following approval by the Province in late 2010, a total of 26 appeals to the OMB were filed, nearly all proposing settlement area expansions.

The Region of Waterloo Official Plan OMB Phase 1 Hearing (OMB Case No. 110080) began in June 2012, with the purpose of this phase being to determine the quantum of land needed to be brought into the settlement area to accommodate forecast growth. A land budget prepared by the Region of Waterloo using a *Growth Plan* target-based methodology concluded between 80 and 100 hectares of additional land was required.[2] Altus Group Economic Consulting, on behalf of the appellants (the Developer Group), employed a more traditional market-demand approach in preparing a land budget that identified a need for 1,053 hectares of additional urban land.[3]

[2] The amount of land required depended on whether the implementing expansions were proposed to the City Urban Area (DGA density target of 55) or the Township Urban Area (DGA density target of 45).
[3] Differences in land needs identified in the Region of Waterloo and Developer Group land budgets were the result of the methodologies used, combined with differences in the amount of land excluded from the density calculations.

The minimum intensification target of the new Region of Waterloo Official Plan (45 percent beginning in 2006) exceeded that of the 2006 *Growth Plan* (40 percent beginning in 2015). Both the Region of Waterloo and Developer Group land budgets respected the Regional Official Plan's intensification target. Construction of off-campus housing to accommodate forecast increases in students at the University of Waterloo, Wilfrid Laurier University and Conestoga College was also provided for in each of the land budget housing forecasts.

Developer Group Market-Demand and Adjusted Forecasts

One of the key inputs into the Developer Group land budget was a market-demand housing-by-type forecast derived from the historical (1971 to 2006) age-specific propensities of people to occupy various forms of housing.[4] The market-demand housing forecast is shown in Figure 1.

Figure 1 – Developer Group Market-Demand Housing Forecast (June 16, 2006 to 2031)

Residential Unit Type	Developer Group Market-Demand Housing Forecast (units)	Developer Group Market-Demand Housing Forecast
Single-/Semi Detached	63,800	60.9 %
Townhouse	18,760	17.9 %
Apartment	22,260	21.2 %
Total	104,820	100.0 %

Source: Figure 5 - June 15, 2012 witness statement of Jeannette Gillezeau, Altus Group Economic Consulting. (see Appendix D)

With limited capacity in the BUA to accommodate new single-detached units, the housing mix contained in the Developer Group market-demand forecast could not be achieved while at the same time meeting the intensification targets. Accordingly, the Developer Group market-demand housing forecast was adjusted, as shown in Figure 2, to reduce the number of single-/semi-detached units and correspondingly increase the number of townhouses and apartments to provide for a housing mix with the potential to conform with the intensification targets.

Figure 2 – Developer Group Adjusted Market-Demand Housing Forecast (June 16, 2006 to 2031)

Residential Unit Type	Developer Group Adjusted Market-Demand Housing Forecast (units)	Developer Group Adjusted Market-Demand Housing Forecast
Single-/Semi Detached	42,820	40.9 %
Townhouse	21,000	20.0 %
Apartment	41,000	39.1 %
Total	104,820	100.0 %

Source: Figure 5 - June 15, 2012 witness statement of Jeannette Gillezeau, Altus Group Economic Consulting. (see Appendix E)

The Developer Group land budget also provided for a total of 13,402 apartment units in the DGA not required to accommodate forecast growth within the planning period. These units were, however, included in the DGA density calculations, meaning the Developer Group land budget did not provide for achievement of the DGA density requirements of the 2006 *Growth Plan* within the 2006 to 2031 planning period.

[4] Section 3.4.6 - June 15, 2012 witness statement of Peter Norman, Altus Group Economic Consulting.

Region of Waterloo *Growth Plan* Target-Based Forecast

The 2006 *Growth Plan* contained no overt requirement that a housing-by-type forecast be completed as part of the preparation of a land budget; however, some consideration of dwelling types was necessary to determine the persons-per-unit assumptions used to distribute population between the BUA and the DGA. As part of this process, an example of specific assignments to each type of housing was generated and presented in the Region of Waterloo Land Budget's Input Glossary to validate these assumptions. The resulting mix of units is shown in Figure 3.

Figure 3 – Region of Waterloo *Growth Plan* Target-Based Housing Forecast (June 16, 2006 to 2031)

Residential Unit Type	Region of Waterloo *Growth Plan* Target-Based Housing Forecast (units)	Region of Waterloo *Growth Plan* Target-Based Housing Forecast
Single-/Semi Detached	36,336	35.2 %
Townhouse	17,894	17.4 %
Apartment	48,871	47.4 %
Total	103,100	100.0 %

Source: This forecast was extrapolated from the Region of Waterloo June 12, 2012 Land Budget – Input Glossary Sections 8 and 9 and Land Budget Section 3 – Steps 4 and 7. An error in the Input Glossary relating to the total number of units in the BUA has been taken into account in these calculations. The number of units used in this forecast reflects the correct number contained in Section 3 – Step 4 of the Land Budget. (see Appendix F)

HOUSING CONSTRUCTION SINCE THE 2006 *GROWTH PLAN*

From June 16, 2006 to year-end 2019 there were 48,125 building permits issued for new dwelling units in the Region of Waterloo. Housing types by year of building permit issuance since the coming into force of the 2006 *Growth Plan* are detailed in Figure 4.

Figure 4 – New Housing by Type and Year of Construction (building permits issued June 16, 2006 to Dec 31, 2019)

Year	Total New Units	Single-detached (units)	Single-detached	Semi-detached (units)	Semi-detached	Townhouse (units)	Townhouse	Apartment (units)	Apartment
2006*	1,391	698	50 %	143	10 %	250	18 %	300	22 %
2007	3,112	1,397	45 %	268	9 %	582	19 %	865	28 %
2008	2,968	1,668	56 %	120	4 %	596	20 %	584	20 %
2009	2,778	1,387	50 %	142	5 %	516	19 %	733	26 %
2010	4,167	1,410	34 %	133	3 %	534	13 %	2,090	50 %
2011	3,600	1,334	37 %	73	2 %	306	9 %	1,887	52 %
2012	2,411	927	39 %	54	2 %	476	20 %	954	40 %
2013	2,569	846	33 %	38	1 %	524	20 %	1,161	45 %
2014	3,804	946	25 %	70	2 %	675	18 %	2,113	56 %
2015	3,604	1,092	31 %	48	1 %	688	19 %	1,776	49 %
2016	5,370	1,702	32 %	106	2 %	951	18 %	2,617	49 %
2017	3,230	991	31 %	49	2 %	661	20 %	1,529	47 %
2018	2,925	912	31 %	63	2 %	572	20 %	1,378	47 %
2019	6,196	787	13 %	110	2 %	1,215	20 %	4,084	66 %
Total	48,125	16,091	33 %	1,417	3 %	8,546	18 %	22,071	46 %

Source: Region of Waterloo Annual Building Activity and Growth Monitoring Reports

* June 16 to December 31, 2006

The period from 2006 to 2012 saw a significant change in the new housing market, with the role of single-/semi-detached units declining considerably in favour of increased apartment construction. Then, from 2013 to 2018, the mix of housing types built remained remarkably stable except for a small increase in the percentage of apartments and a corresponding decrease in single-detached units constructed in 2014. While the mix in new housing changed considerably in 2019, it remains to be seen if this is movement away from the more stable mix of the previous six years, or if it is merely an anomaly associated with the elimination of the core area development charge exemption and the opening of the ION light rail transit system.

What is clear from the 2006 to 2019 data is, despite considerable variation in the total number of units built annually, the townhouse share of the new housing market remained virtually unchanged at 18 to 20 percent of total units in 12 of last 14 years. Conversely, semi-detached units have almost vanished from the new housing market, representing only two percent or less of total units built in each of the last nine years. Figure 5 summarizes the types of new housing built since the coming into effect of the 2006 *Growth Plan*. Single- and semi-detached units have been combined in Figure 5 to align with the presentation of such units in the competing land budgets.

Figure 5 – Summary of New Housing by Type (building permits issued June 16, 2006 to Dec 31, 2019)

Residential Unit Type	Actual June 16, 2006 to Dec 31, 2019 (units)	Actual June 16, 2006 to Dec 31, 2019
Single-/Semi Detached	17,508	36.4 %
Townhouse	8,546	17.8 %
Apartment	22,071	45.9 %
Total	48,125	100.0 %*

Source: Region of Waterloo Annual Building Activity and Growth Monitoring Reports
* Total does not add due to rounding

ANALYSIS

Forecast Methodology Versus New Housing Construction to Date

Figure 6 compares construction to date to the housing forecasts presented at the Region of Waterloo Official Plan Phase 1 OMB Hearing.

Figure 6 – Housing Forecasts Versus New Construction by Type (June 16, 2006 to Dec 31, 2019)

Residential Unit Type	Actual Construction June 16, 2006 to Dec 31, 2019	Region of Waterloo *Growth Plan* Target-Based Forecast	Developer Group Market-Demand Forecast	Developer Group Adjusted Market-Demand Forecast
Single-/Semi- Detached	36.4 %	35.2 %	60.9 %	40.9 %
Townhouse	17.8 %	17.4 %	17.9 %	20.0 %
Apartment	45.9 %	47.4 %	21.2 %	39.1 %
Total	100.0 %*	100.0 %	100.0 %	100.0 %

Source: Figures 1 through 5 above
* Total does not add due to rounding

Whereas the target-based housing forecast used to validate population distribution assumptions in the Region of Waterloo land budget was within two percentage points across all three types of actual construction, the Developer Group market-demand forecast failed to anticipate significant shifts that occurred in the housing market, overestimating the percentage of single-detached units (60.9 verses 36.4 percent actual construction to date) and underestimating apartments (21.2 verses 45.9 percent).

The Developer Group adjusted market-demand forecast outperformed the market-demand forecast, but not to the level achieved in the target-based forecast. The adjusted market-demand forecast is essentially a hybrid between the target-based and market-demand methodologies, with the improved performance relative to the market-demand forecast being directly attributable to the *target-based* adjustments made to accommodate the mandated intensification target.
A fair comparison of the competing forecast methodologies should consider whether the rather dramatic change in the mix of new housing construction since 2006 is likely to persist, or can a reasonable argument be made that the ratio of single-detached dwellings to apartments is about to revert to historic levels?

'Blip' or Longer-Term Trend?

One of the key considerations in the creation of a market-demand forecast is the nature of the historic period on which the market demand is based. The model the Developer Group consultants presented to the OMB used data from 1971 to 2006 as the basis for determining market demand.

This 35-year period happens to coincide with the time during which the Baby Boom generation was purchasing suburban single-detached units in which to raise their families. Developer Group witnesses at the OMB Hearing said that reliance on such a long time period was intended to ensure that the forecasts produced were not unduly influenced by what were described as 'blips' (short-term increases or decreases inconsistent with longer-term trends).

By relying on the 1971 to 2006 time period, the consultants, in fact, landed on what is perhaps the biggest blip ever to have affected the housing market—the Baby Boom.

This section briefly examines the following factors to explore the question of whether the decrease in construction of single-detached units experienced to date is a longer-term trend or simply a blip:

- availability of vacant lots for single-detached units
- the Baby Boom generation entering retirement
- retiring Baby Boomer turnover rate for single-detached units
- the number of single-detached units coming back onto the market

Availability of Vacant Lots for Single-Detached Units

One of the most prevalent theories as to why the construction of single-detached units in the GGH has declined relative to other types of housing is that there was, and continues to be, a shortage of approved and serviced single-detached lots.

For the past several decades, the Region of Waterloo has produced an annual inventory by dwelling type of vacant lots and blocks within registered, draft approved and pending plans of subdivision. Figure 7 summarizes these reports with regard to single-detached units.

Figure 7 – Year-End Inventory of Vacant Single-Detached Lots in Registered and Draft Approved Plans of Subdivision (2006 to 2019)

Year	Vacant Single-Detached Lots in Registered Plans of Subdivision	Single-Detached Lots in Draft Approved Plans of Subdivision	Total in Vacant Registered and Draft Approved Plans of Subdivision
2006	3,810	5,243	9,053
2007	3,691	7,485	11,176
2008	3,440	5,993	9,433
2009	2,960	5,773	8,733
2010	3,161	6,426	9,587
2011	2,762	5,825	8,587
2012	3,204	5,634	8,838
2013	2,908	4,829	7,737
2014	2,905	5,391	8,296
2015	2,471	6,228	8,699
2016	1,465	7,091	8,556
2017	1,539	6,074	7,613
2018	1,606	6,551	8,157
2019	1,907	5,947	7,854
Average	2,393	5,999	8,392

Source: Region of Waterloo Annual Inventory of Dwelling Units in Plans of Subdivision

While this inventory shows some minor fluctuations, it clearly demonstrates that a substantial inventory of vacant lots for single-detached units has been consistently available within the Region of Waterloo. Since 2006, there has been an average year-end inventory of 2,393 vacant registered single-detached lots. This inventory increases to 8,392 if draft approved single-detached lots are included.

At no time since the coming into force of the 2006 *Growth Plan* did the year-end inventory of vacant single-detached lots in registered plans fall below 1,465 units (2016). In the same time period, the combined inventory of vacant registered and draft approved single-detached lots never fell below 7,737 units (2013).

Figure 8 provides a more detailed analysis of the available inventory from 2010 onward. This analysis compares the year-end inventory of vacant registered and draft approved single-detached lots with the average annual rate of construction of such units over the previous five year period.

Figure 8 – Year-End Inventory of Vacant Single-Detached Lots in Registered and Draft Approved Plans of Subdivision Compared to Average Single-Detached Unit Construction over the Previous Five Years (2010 to 2019)

Year	Annual Average of Single-Detached Units Built in Previous Five Years	Inventory of Vacant Registered Single-Detached Lots (Years)	Inventory of Draft Approved Single-Detached Lots (Years)	Combined Inventory of Vacant Registered and Draft Approved Single-Detached Lots (Years)
2010	1,498	2.11	4.29	6.40
2011	1,439	1.92	4.05	5.97
2012	1,345	2.38	4.88	7.26
2013	1,181	2.46	4.09	6.55
2014	1,093	2.66	4.93	7.59
2015	1,029	2.40	6.05	8.45
2016	1,101	1.33	6.44	7.77
2017	1,114	1.38	5.45	6.83
2018	1,127	1.43	5.81	7.24
2019	1,096	1.74	5.43	7.17
Average	1,202	1.98	5.14	7.12

Source: Region of Waterloo Annual Inventory of Dwelling Units in Plans of Subdivision and Annual Building Activity and Growth Monitoring Reports

Since 2010, there has been an average year-end inventory of 1.98 years of vacant registered single-detached lots based on the previous five years of construction. This increases to 7.12 years when draft approved single-detached lots are included. While the availability of these lots to potential buyers may be subject to various constraints imposed by the marketplace, this inventory demonstrates that, in the Region of Waterloo at least, such limitations cannot be construed as a supply issue.

The Baby Boom Generation Entering Retirement

The Baby Boom generation is much larger than the 'Pre-Boomers', and therefore significantly more people are now entering retirement age than in the past. Figure 9 shows the difference between these generations in the Region of Waterloo in terms of occupancy of single-detached units as they enter the typical age of retirement.

Figure 9 – Single-Detached Units Occupied by the Pre-Boomer and Baby Boom Generations as They Enter Retirement Age (65 – 69, based on Household Maintainers)

Generation	Occupied Single-Detached Units as they Enter Retirement Age
Pre-Boomer Born 1926 – 1945 Enter Retirement 1991 – 2010	27,045 (in 1991)
Baby Boom Born 1946 – 1965 Enter Retirement 2011 – 2030	49,535 (in 2011)

Source: Statistics Canada Custom Census Data

Figure 10 illustrates occupancy of single-detached units in the 55 – 59 cohort each Census year since 1991. This represents the number of single-detached units where the household maintainer will be entering retirement age in the subsequent six- to ten-year period. This is the time period in which occupancy of single-detached units typically begins to decline.

Figure 10 – Single-Detached Units Occupied by 55 – 59 year-old Household Maintainers (1991 to 2016)

	Pre-Boomers			Baby Boom		
Household Maintainer Cohort	**Units Occupied 1991**	**Units Occupied 1996**	**Units Occupied 2001**	**Units Occupied 2006**	**Units Occupied 2011**	**Units Occupied 2016**
55 – 59 years old	5,880	6,555	8,065	10,565	11,610	13,370

Source: Statistics Canada Custom Census Data (See Appendix G)

The number of retirees has increased dramatically and can be expected to continue to increase over the next decade. It follows that the single-detached dwellings they now occupy will return to the market in the next several decades as the Baby Boomers seek alternate forms of housing to live out their retirement years, enter nursing care, or die.

Retiring Baby Boomer Turnover Rate for Single-Detached Units

Using Census household maintainer data cross-tabulated with type of dwelling allows for the identification of trends in single-detached unit occupancy by age of household maintainer. Household maintainer cohorts aged 55 – 59 were revisited 10 years later (when they were aged 65 – 69), making it possible to determine the rate of turnover in occupancy of single-detached units as these household maintainers typically enter their retirement years. Figure 11 shows the results of this analysis over each of the last four Census periods for the Region of Waterloo.

Figure 11 – Change in Occupancy of Single-Detached Units by Household Maintainers Aged 55 – 59 during the Subsequent 10 Year Period

	Pre-Boomers			Baby Boom
Household Maintainer Cohorts Entering Retirement	**Change in Units Occupied 1991 to 2001***	**Change in Units Occupied 1996 to 2006***	**Change in Units Occupied 2001 to 2011***	**Change in Units Occupied 2006 to 2016***
55 – 59 years old, aging to 65 – 69	-11.8 %	-11. 7 %	-11.0 %	-18.2 %

Source: Statistics Canada Custom Census Data (See Appendix G)

* The change in occupied single-detached units would include a limited number of units demolished, as well as single-detached units that changed unit classification during the ten year period.

For the Census periods from 2001 through 2011, newly retired household maintainers (ages 65 – 69) occupied between 11 and 12 percent fewer single-detached units than they had 10 years earlier. This percentage jumped to 18.2 in 2016 as the first Baby Boomers entered retirement. This represents an increase of more than 65 percent over 2011. The reasons for this abrupt

change in behaviour are likely numerous and complex; however, an obvious consideration may be that the houses occupied by the Baby Boom are substantially larger than those of the earlier cohort, making them less suitable for aging empty nesters. Other potential reasons include the increased range of housing options available to retiring Boomers, and that Boomers have put greater reliance on the equity in their homes to finance their retirement years. Other candidate factors of a financial or social nature exist that may help to explain the change, but an exploration of them is beyond the scope of this paper and unnecessary to the finding that there has already been a marked change in the behaviour of this retiring Baby Boom cohort.

More Single-Detached Units Coming Back onto the Market

As shown in Figure 10, the number of household maintainers entering their typical retirement years (at 65 – 69 years of age) is beginning to increase rapidly as the Baby Boomers reach this phase in their lives. Combined with the evidence for an increased preference for other forms of housing by this cohort (Figure 11), it is inevitable that more single-detached units are—and will be—coming back onto the housing market than in the past. Figure 12 shows that more than twice the number of single-detached units potentially came back onto the market as a result of the aging of this cohort in 2016 compared to 2011. Each of these dwellings coming back onto the market displaced the demand for a new single-detached unit, with significant implications for this market segment going forward.

Figure 12 – Change in Single-Detached Units Occupied by Household Maintainers Aged 55 – 59 during the Subsequent 10 Year Period (by Census Year 1991 to 2006)

	Pre-Boomers			Baby Boom
Household Maintainer Cohorts Entering Retirement	**Change in Occupied Units 1991 to 2001***	**Change in Occupied Units 1996 to 2006***	**Change in Occupied Units 2001 to 2011***	**Change in Occupied Units 2006 to 2016***
55 – 59 years old, aging to 65 – 69	-695	-765	-890	-1,920

Source: Statistics Canada Custom Census Data (See Appendix G)

* The change in occupied single-detached units would include a limited number of units demolished, as well as single-detached units that changed unit classification during the ten year period.

CONCLUSIONS

The Developer Group market-demand analysis projected that to meet market demand, 60.9 percent of all new residential construction between 2006 and 2031 needed to be in the form of single-detached units. By the time the market-demand analysis was completed in early 2012, the percentage of new residential units being built as single-detached units was already declining, with single-detached units representing only 43.8 percent of new units being built from the coming into effect of the 2006 *Growth Plan* through to the end of 2011. In testimony before the OMB, consultants working for the Developer Group stated that the decrease in construction of single-detached units being experienced was likely a blip and that the longer-term trends projected by the market-demand model were expected to ultimately prevail.

In the subsequent eight years (2012 to 2019), single-detached units represented only 27.2 percent of all new residential units built in the Region of Waterloo. In order for the Developer Group market-demand housing forecast to be achieved, the mix of housing constructed from 2020 to 2031 would have to be 81.7 percent single-/semi-detached units, 18.0 percent townhouses and 0.3 percent apartments. (See Appendix D)

While certain factors, such as the earlier turnover of single-detached units by Baby Boomers entering retirement could turn out to be short-lived phenomena, the sheer number of Boomers who will vacate single-detached units over the next twenty to thirty years, either by choice or by necessity, will continue to suppress the need for new single-detached units for the foreseeable future.

It is a matter of good fortune that a demographic reality of our time—the Baby Boomers beginning to vacate their single-detached homes in significant numbers—aligns well with the *Growth Plan's* implied objective of greater reliance on alternative dwelling types to facilitate more compact and sustainable growth. Two recent decades of decline in construction of single-detached units mark the inevitable reversal of a half-century of elevated demand that was driven by the Baby Boom generation.

Does the failure of the market-demand approach in this instance necessarily mean, then, that target-based methodologies are better for predicting future housing construction? Unfortunately, many of the issues that led to the need to change how planning was being done in the Greater Golden Horseshoe still persist today, making it unwise to rely on a historic market-demand analysis to predict the housing needs of the future. The 2006 *Growth Plan* addressed these challenges through a different approach to modelling, one in which the resulting target-based land needs assessments were proactively supportive of policy objectives rather than merely reflective of apparent historical norms. Target-based land needs assessments, however, are only as good as the targets selected and the on-going efforts to achieve them.

The use of a target-based land needs assessment works well as part of a complete package. Simply setting targets does not ensure success. Targets need to be carefully selected, closely monitored and supported by effective measures that help facilitate the desired change. In the Region of Waterloo, those measures included implementation of a brownfield financial incentive program, waiver of development charges in core areas, pre-zoning of nodes and corridors by local municipalities, and ultimately, construction of the ION light rail transit system.

Appendix A: 2006 *Growth Plan* Policy Framework

Source: 2006 *Places to Grow: Growth Plan for the Greater Golden Horseshoe*

Policy 2.2.8.2 a) through c) – Settlement Area Expansion Quantum and Timing

A *settlement area* boundary expansion may only occur as part of a *municipal comprehensive review* where it has been demonstrated that –

a) sufficient opportunities to accommodate forecasted growth contained in Schedule 3, through *intensification* and in *designated greenfield areas*, using the *intensification target* and *density targets*, are not available:

   i. within the *regional market area*, as determined by the upper- or single-tier municipality, and

   ii. within the applicable lower-tier municipality to accommodate the growth allocated to the municipality persuant [sic] to this plan

b) the expansion makes available sufficient lands for a time horizon not exceeding 20 years, based on the analysis provided for in Policy 2.2.8.2(a)

c) the timing of the expansion and the phasing of development within the *designated greenfield area* will not adversely affect the achievement of the *intensification target* and *density targets*, and the other policies of this Plan

Policy 3.2.3.1 – Intensification Target

By the year 2015 and for each year thereafter, a minimum of 40 per cent of all residential development occurring annually within each upper- and single-tier municipality will be within the *built-up area*.

Policy 2.2.7.2 – Designated Greenfield Area Density Target

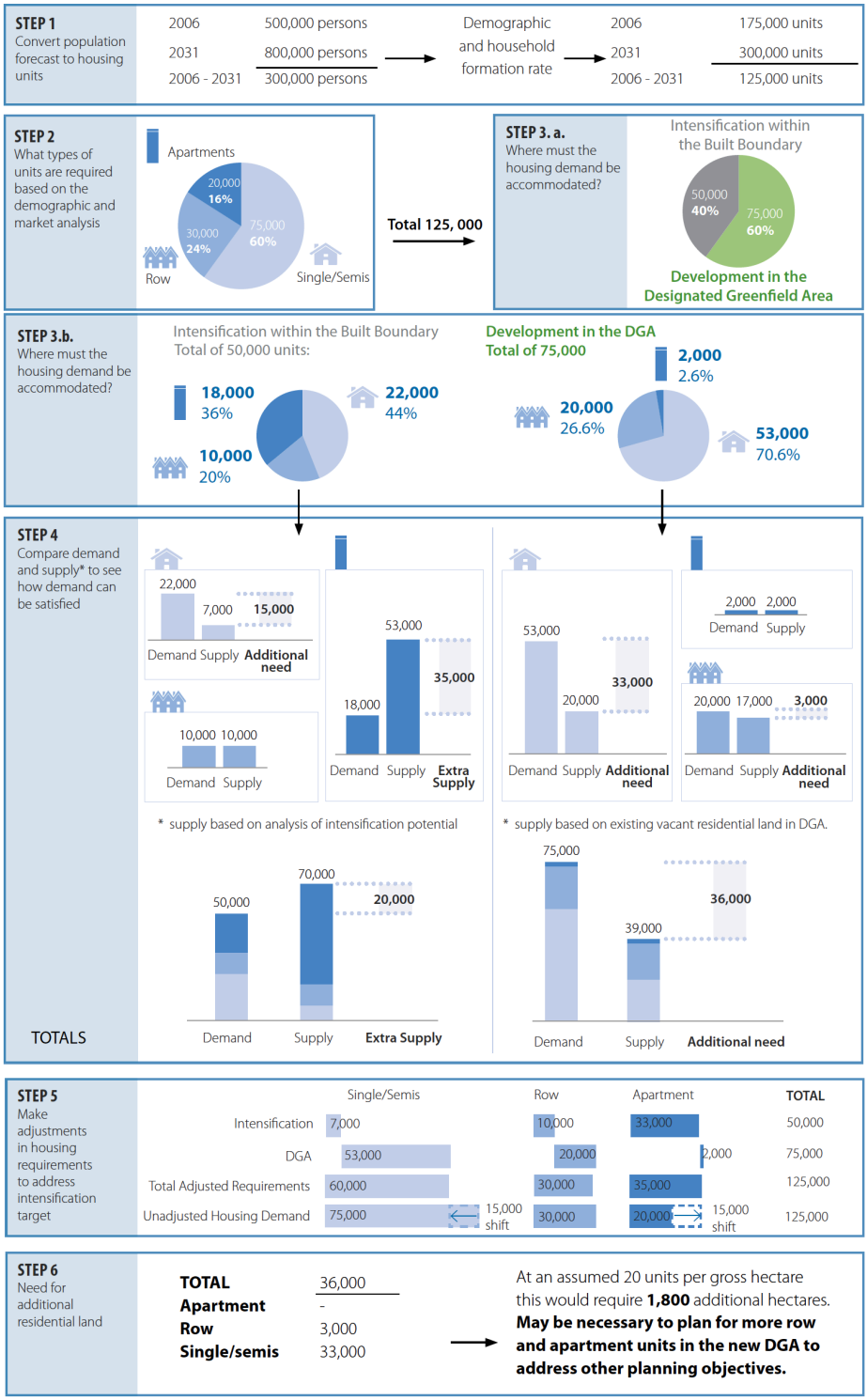
The *designated greenfield area* of each upper- or single-tier municipality will be planned to achieve a minimum *density target* that is not less than 50 residents and jobs combined per hectare.

Policy 3.2.6.6 – Determination of the Range of Housing Types

Upper- and single-tier municipalities will develop a housing strategy in consultation with lower-tier municipalities, the Minister of Municipal Affairs and Housing and other appropriate stakeholders. The housing strategy will set out a plan, including policies for official plans, to meet the needs of all residents, including the need for *affordable* housing – both home ownership and rental housing. The housing strategy will include the planning and development of a range of housing types and densities to support the achievement of the *intensification target* and *density targets*.

Appendix B: Sample Adjusted Market-Demand Land Needs Assessment

Source: A Review of the Land Needs Assessment Process and the Implementation of the *Growth Plan,* Greenbelt Foundation Occasional Papers Series July 2016 - Appendix C (Derived from an example provided in the witness statement of Jeanette Gillezeau, Altus Group Economic Consulting Exhibit 25, Region of Waterloo OMB Hearing)



Appendix C: Sample *Growth Plan* Target-Based Land Needs Assessment

Source: A Review of the Land Needs Assessment Process and the Implementation of the *Growth Plan* Greenbelt Foundation Occasional Papers Series July 2016 - Appendix D

D.1 Determining Residential DGA Demand

2006 existing population = 500,000
2031 forecasted population = 800,000

2006 households = 175,000
2031 forecasted households = 300,000

STEP 1
Determine the total population to be housed in new dwellings

317,500
To be housed in New Dwellings

STEP 2
Determine the total number of new dwelling units

125,000

STEP 3
Determine the number of new dwellings in the Built-up Area

50,000
New Dwellings in Built-up Area

STEP 4
Determine the Average PPU Value for New Dwelling Units in the Built-up Area

2.2

STEP 5
Determine the Population to be housed in New Dwelling Units in the Built-up Area

110,000
in Built Area

STEP 6
Determine the number of new dwelling units in the Designated Greenfield Area

75,000
New Dwellings in DGA

STEP 7
Determine the Population to be housed in New Dwelling Units in the DGA
(step 1 - step 5)

207,500 to be housed in New Dwellings in DGA

STEP 8
Determine the New Work at Home and Population Serving Employment in the DGA

37,130
Jobs in the Residential DGA

STEP 9
Determine the Total New Residential DGA Demand
(Step 7 + Step 8)

244,630
Residents and Jobs in the Residential DGA

* STEP 1
Population in 2006 = 500,000
Households in 2006 = 175,000
Average PPU in existing households in 2006 = 2.86
Determine decline/increase in average PPU in existing households 2006 to 2031 = - 0.1
Forecasted decline in PPU x households in 2006 = 17,500 (population shifting from existing to new housing within the 2006 to 2031 planning period)
Net increase in population 2006 to 2031 = 300,000
Total Population to be housed in new dwelling units = 317,500

* STEP 2
Forecasted households (300,000) – existing households (175,000)

* STEP 3
125,000 new dwelling units x .4 (Growth Plan 40% intensification target in policy 2.2.3.1)

* STEP 4
based on anticipated mix of housing with the Built-up Area from 2006 to 2031 being 65% apartments (1.85 PPU), 25% townhouses (2.65 PPU) and 10% singles and semis (3.3 PPU) = 1.20 + 0.66 + 0.33

* STEP 5
New units (50,000) x PPU (2.2)

* STEP 6
Total new units (125,000) – units in the Built-up Area (50,000)

* Step 8
Work at Home = 2.8% of population in new dwellings (based on place of work data) = 6,580
Population Serving Employment = 13% of population in new dwellings (based on data for comparable existing suburban area) = 30,550

D.2 Determining the Residential DGA Capacity

Step 10
Determine the Total Area of the Residential DGA

4,750 ha
Total Residential DGA

Step 11
Calculate the Area of Take-outs permitted under policy 2.2.7.3

1,350 ha
Take-outs Permitted

Step 12
Calculate the Area of the Residential DGA (net of take-outs)

3,400 ha
Residential DGA Net of Take-outs

Step 13
Determine the Capacity of the Residential DGA for New Development

167,500
Residents and Jobs capacity

*Step 13
3,400 x 50 residents and jobs combined per ha (Growth Plan DGA density target in policy 2.2.7.2) = 170,000 residents and jobs overall capacity
Subtract residents and jobs existing in the DGA as of 2006 to determine net capacity of the DGA to accommodate growth 2006 t 2031 = 2,500 existing residents and jobs
Capacity for new development = 170,000 – 2,500 = 167,500

D.3 Determining the need for an expansion by matching up DGA demand and DGA capacity

Step 14
Determine Required Area of Expansion (or Surplus) in the Residential DGA

1,542.6 ha
Required Area of Residential DGA Expansion

244,630 demand – 167,500 supply = 77,130 residents and jobs more demand than supply
77,130 residents and jobs shortfall/50 residents and jobs per ha = 1,542.6 ha

As a result of this calculation, justification exists for settlement area expansions for residential purposes of 1,542.6 ha net of permitted take-outs.

Appendix D: Market-Demand Housing Forecast Compared to Housing Construction

Source: Annual Building Activity and Growth Monitoring Reports and Figure 5 - June 15, 2012 witness statement of Jeannette Gillezeau, Altus Group Economic Consulting, Region of Waterloo Official Plan OMB Hearing (OMB Case No. 110080)

Residential Unit Type	Developer Group Market-Demand Forecast* (units)	Developer Group Market-Demand Forecast*	Built June 2006 to end of 2019 (units)	Built June 2006 to end of 2019	Required 2020-2031 to Meet Forecast (units)	Required 2020-2031 to Meet Forecast
Single-/Semi Detached	63,800	60.9 %	17,508	36.4 %	46,292	81.7 %
Townhouse	18,760	17.9 %	8,546	17.8 %	10,214	18.0 %
Apartment	22,260	21.2 %	22,071	45.9 %	189	0.3 %
Total	104,820	100.0 %	48,125	100.0%**	56,695	100.00 %

* June 16, 2006 to June 30, 2031, including students
** Total does not add due to rounding

Appendix E: Adjusted Market-Demand Forecast Compared to Housing Construction

Source: Annual Building Activity and Growth Monitoring Reports and Figure 5 - June 15, 2012 witness statement of Jeannette Gillezeau, Altus Group Economic Consulting, Region of Waterloo Official Plan OMB Hearing (OMB Case No. 110080)

Residential Unit Type	Developer Group Adjusted Market-Demand Forecast* (units)	Developer Group Adjusted Market-Demand Forecast*	Built June 2006 to end of 2019 (units)	Built June 2006 to end of 2019	Required 2020-2031 to Meet Adjusted Forecast (units)	Required 2020-2031 to Meet Adjusted Forecast
Single-/Semi Detached	42,820	40.9 %	17,508	36.4 %	25,312	44.6 %
Townhouse	21,000	20.0 %	8,546	17.8 %	12,454	22.0 %
Apartment	41,000	39.1 %	22,071	45.9 %	18,929	33.4 %
Total	104,820	100.0 %	8,125	100.0%**	56,695	100.0 %

* June 16, 2006 to June 30, 2031, including students
** Total does not add due to rounding

Appendix F: Region of Waterloo *Growth Plan* Target-Based Housing Forecast Compared to Housing Construction

Source: Annual Building Activity and Growth Monitoring Report and Region of Waterloo June 12, 2012 Land Budget, Region of Waterloo Official Plan OMB Hearing (OMB Case No. 110080)

Residential Unit Type	Region of Waterloo *Growth Plan* Target-Based Forecast* (units)	Region of Waterloo *Growth Plan* Target-Based Forecast*	Built June 2006 to end of 2019 (units)	Built June 2006 to end of 2019	Required 2020-2031 to Meet Forecast (units)	Required 2020-2031 to Meet Forecast
Single-/Semi Detached	36,336	35.2 %	17,508	36.4 %	18,827	34.2 %
Townhouse	17,894	17.4 %	8,546	17.8 %	9,348	7.0 %
Apartment	48,871	47.4 %	22,071	45.9 %	26,800	48.8 %
Total	103,100**	100.0 %	48,125	100.0%**	54,975	100.0 %

Note: This forecast was extrapolated from the Region of Waterloo June 12, 2012 Land Budget – Input Glossary Sections 8 and 9 and Land Budget Section 3 – Steps 4 and 7. An error in the Input Glossary relating to the total number of units in the BUA has been taken into account in these calculations. The number of units used in this forecast reflects the correct number contained in Section 3 – Step 4 of the Land Budget.

The example unit breakdown provided in the Region of Waterloo Land Budget – Input Glossary was as follows:

BUA Projected Units		=	**46,282**
Single-/semi-detached	(existing plans of subdivision)	=	2,145
Townhouses	(existing plans of subdivision)	=	1,580
Townhouses	(projected additional units)	=	5,000
Apartments	(student housing)	=	2,500
Apartments	(projected)	=	34,200
Apartments	(projected - correction)	=	857
Replacement Units in the BUA Projected		=	**250**
Single-/semi-detached	(projected demolish and replace)	=	250
DGA Projected Units		=	**56,568**
Single-/semi-detached	(projected at 60 percent of total DGA)	=	33,941
Townhouses	(projected at 20 percent of total DGA)	=	11,314
Apartments	(projected at 20 percent of total DGA)	=	11,314
Total Projected Units		=	**103,100**

* June 16, 2006 to June 30, 2031, including students
** Totals do not add due to rounding

Appendix G: Change in Single-Detached Units Occupied by Household Maintainers Aged 55 – 59 during the Subsequent 10 Year Period

Source: Statistics Canada Custom Census Data

Household Maintainers	Single-Detached Units Occupied by Household Maintainers Aged 55 – 59	Single-Detached Units Occupied by Household Maintainers Aged 65 – 69	Change in Occupied Single-Detached Units	Percentage Change in Occupied Single-Detached Units
55 – 59 years (1991) aging to 65 – 69 years (2001)	5,880	5,185	-695	11.8
55 – 69 years (1996) aging to 65 – 69 years (2006)	6,555	5,790	-765	11.7
55 – 69 years (2001) aging to 65 – 69 years (2011)	8,065	7,175	-890	11.0
55 – 59 years (2006) aging to 65 – 69 years (2016)	10,565	8,645	-1,920	18.2