DISCUSSION PAPER

PROPOSED METHODOLOGY FOR LAND NEEDS ASSESSMENT FOR THE GREATER GOLDEN HORSESHOE

December 2017

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Preface

On May 18, 2017, the Government of Ontario released the Growth Plan for the Greater Golden Horseshoe, 2017 ("the Growth Plan" or "the Plan"). The Growth Plan states that the Minister will establish a methodology for assessing land needs to implement the Growth Plan. The Minister is now issuing a proposed methodology for consultation, and is asking for your feedback.

For an overview of the Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe ("the Proposed Methodology" or "the Methodology" or "this Methodology), please see: www.placestogrow.ca/index.php?option=com_content&task=view&id=432&Itemid=12.

Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe

The Minister of Municipal Affairs is issuing the Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe for consultation. After considering submissions and comments received, the Minister may modify this document and will formally issue a final methodology in accordance with Growth Plan policy 5.2.2.1 c). This consultation document includes the table of contents and text of the Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe. Comments and feedback will be taken into consideration prior to a final decision on the Proposed Methodology.

Seeking Feedback

Your feedback on the Proposed Methodology is greatly appreciated. Page 127 provides the details for submitting comments and feedback on the Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe.

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1 Introduction

On May 18, 2017, the Government of Ontario released the Growth Plan for the Greater Golden Horseshoe, 2017 (the "Growth Plan" or the "Plan"). The Growth Plan, 2017 was prepared under the Places to Grow Act, 2005 which requires that plans be reviewed at least every ten years. It replaces the previous version of the Growth Plan originally introduced by the Province in June, 2006 (the "2006 Growth Plan") as a part of the Places to Grow initiative. Places to Grow is the Ontario government's initiative to plan for growth and development in a way that supports economic prosperity, protects the environment and helps communities achieve a high quality of life.

The policies of the Growth Plan, 2017 create a framework for managing the population and employment growth projected in the *Greater Golden Horseshoe* (the "*GGH*"). The Plan aims to:

- Support the achievement of complete communities that offer more options for living, working, learning, shopping and playing.
- Promote an integrated transportation network that will allow people choices for easy travel both within and between urban centres throughout the region.
- Reduce traffic gridlock by improving access to a greater range of transportation choices and support transit viability.
- Provide housing options to meet the needs of people at any age.
- Promote downtowns that are vibrant and provide convenient access to an appropriate mix of jobs, local services, public service facilities and a full range of housing.
- Curb sprawl and protect farmland and natural heritage features and areas.
- Promote long-term economic growth.

As part of their work to implement the 2006 Growth Plan, many municipalities prepared land needs assessments. These assessments were typically prepared to demonstrate how an official plan would provide for achievement of the 2006 Growth Plan density and intensification targets, and to substantiate need for a proposed *settlement area* boundary expansion. Approaches to these assessments and the reporting of results varied.

The updated Growth Plan, 2017 states that the Minister of Municipal Affairs will establish a standard methodology for assessing land needs to implement the Plan. It also requires that this methodology be used by upper- and single-tier municipalities to assess the quantity of land needed to accommodate forecasted growth to the Growth Plan horizon (currently 2041). This discussion paper sets out the Proposed Methodology.

1.1 The Growth Plan for the Greater Golden Horseshoe and Land Supply

The Growth Plan lays out the Province's vision for how and where urban development is to occur within the *GGH*. The Plan provides the forecasts that municipalities must use as a basis for planning and policies for managing population and employment growth in the region. This includes direction for where growth will be focused (e.g. *strategic growth areas*, locations with existing or planned *higher order transit*) and where it will be limited (e.g. *settlement areas* that are not serviced by *municipal water and wastewater systems*).

The Growth Plan recognizes that there is a large supply of land already designated for future urban development in the *GGH* and that in some municipalities, there may already be more land designated for development than is required to accommodate forecasted growth to the Growth Plan horizon.

It is important to optimize the use of the existing urban land supply as well as the existing building and housing stock in order to avoid over designating land for urban development. In recognition of this, the Growth Plan places an emphasis on optimizing the use of the existing land supply and establishes an *intensification* first approach to development and community building, one which requires municipalities to first demonstrate that they are optimizing existing urban land, *infrastructure* and *public service facilities*, before they expand the urban area to accommodate population and employment growth.

Some key elements of the *intensification* first approach of the Growth Plan include:

- minimum intensification targets that set the percentage of residential development that must occur annually within the *delineated built-up area* of municipalities;
- minimum density targets for the number of persons and jobs combined per hectare in the *designated greenfield area*; and

- additional density targets for *strategic growth areas*, including *urban growth centres* and *major transit station areas*.

To support these minimum targets, the Growth Plan requires that certain tests must be met in order to justify need for any *settlement area* boundary expansions. Municipalities are required to demonstrate, among other matters, that there are insufficient opportunities to accommodate forecasted growth to the Growth Plan horizon through *intensification* in *delineated built-up areas* and in *designated greenfield areas* based on the respective minimum intensification and density targets for each of these policy areas.

1.2 Land Needs Assessment and Growth Plan Conformity

The Growth Plan is implemented by upper- and single-tier municipalities through a *municipal comprehensive review*. A *municipal comprehensive review* is the process of comprehensively applying the policies of the Growth Plan, 2017 at the upper- and single-tier municipal level. It involves integrated background technical analysis of a variety of matters, of which land needs assessment is just one component, as illustrated in Figure 1.

The implementation of the results of a land needs assessment (either a *settlement area* boundary expansion or the identification of *excess lands*) can only be implemented through a new official plan, or official plan amendment, initiated by an upper- or single-tier municipality under section 26 of the Planning Act that comprehensively applies the policies and schedules in the Growth Plan.

Lower-tier municipalities are then responsible for further implementing the results of the upper-tier process by updating their official plans to conform with the applicable upper-tier official plan and the Growth Plan.

The policies provide for some flexibility in terms of how and at what stage a municipality may choose to undertake certain aspects of this background analysis during the *municipal comprehensive review*. However, there is some background analysis that must be completed in advance of undertaking a land needs assessment to provide certain inputs. This analysis includes:

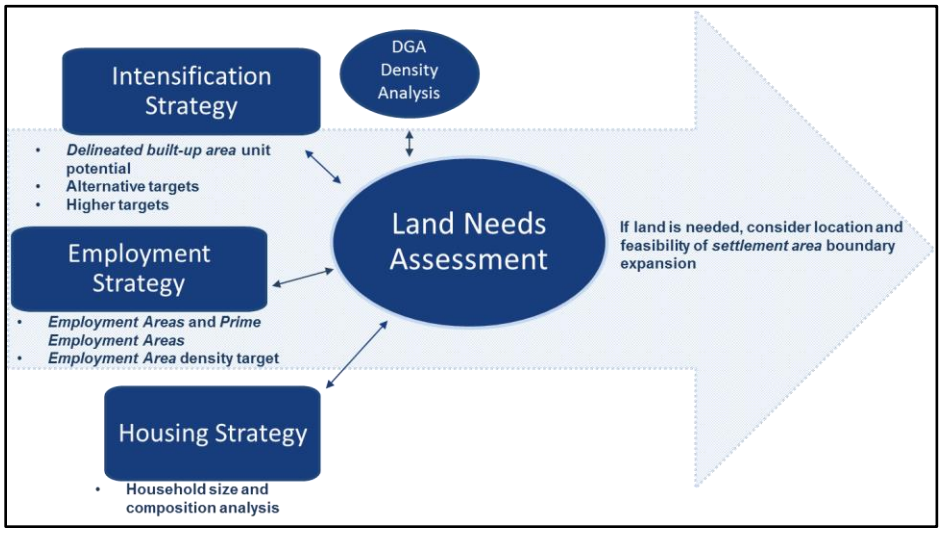
- Identification of the hierarchy of *settlement areas* and areas within *settlement areas* where growth will be focused, such as the *delineated built-up areas, urban growth centres*, and other *strategic growth areas;*

- Identification of an appropriate *intensification* target through an *intensification* analysis;
- Identification of an appropriate *designated greenfield area* density target through an analysis of existing development and potential for increased density within the *designated greenfield area*;
- Identification of an appropriate density target for *employment areas* through an employment strategy;
- An assessment of the anticipated structure and composition of employment over the Growth Plan horizon; and
- An assessment of the anticipated composition of households over the Growth Plan horizon.

Additional information about these analyses and strategies is provided in Appendix 1.

Municipalities should consult with Provincial staff before incorporating the outcomes of this work into their land needs assessment and at other key points in the *municipal comprehensive review* process. This will help streamline decision-making on municipal official plans and official plan amendments implementing the results.

Figure 1: Associated analysis



1.3 Purpose of Methodology

This Methodology has been prepared by the Province to provide direction on how to assess how much land is needed to accommodate forecasted population

and employment growth in a manner that supports Growth Plan policy objectives. It will be used by upper- and single-tier municipalities to determine their total quantum of land needed to the Growth Plan horizon. If a land need has been established, the location of any *settlement area* boundary expansions would be determined later in the *municipal comprehensive review* process by applying Growth Plan policy direction regarding the feasibility of a proposed *settlement area* boundary expansion and the most appropriate location for the proposed expansion.

In some cases in the *outer ring*, the land needs assessment may determine that an upper- or single-tier municipality has *excess lands*.

The land needs assessment will also inform part of the analysis to determine whether any lands within *employment areas* may be converted to non-employment uses, including confirmation of whether the lands are needed for employment purposes within the Growth Plan horizon.

In both cases, as with *settlement area* boundary expansions, other policies in the Growth Plan provide direction for which lands should be identified as *excess lands* and which types of *employment areas* may be appropriate for conversion.

The Minister's provision of a standard methodology for land needs assessment is intended to provide clarity on what is required in order to conform with Growth Plan policies as well as a standard approach to the analysis, inputs and reporting of results.

1.4 Discussion Paper Contents

Following this introduction section, the balance of this discussion paper is organized as follows:

- Section 2 outlines key guiding principles, provides an overview of Growth Plan policy areas and planning periods that are the foundation for the Methodology, and provides an overview of the approach to the Methodology.
- Section 3 focuses on the steps involved in determining the allocation of forecasted residential growth by planning periods and policy areas and assessing community area land need.
- Section 4 provides the steps to determine the type and location of forecasted employment growth and assessing *employment area* land need.

- Section 5 provides guidance for documenting the results of land need assessment, Provincial review and feedback during the assessment process and municipal implementation.

Where a word is italicized, the definition of the word or phrase is to be understood as reflecting the corresponding definition in the Growth Plan, 2017. For non-italicized terms, the normal meaning of the word applies. Where a word or phrase is typically used in a planning context, the meaning associated with the use of that word or phrase within the planning context is intended to apply.

Any references to specific policies and associated policy numbers in this document are references to the corresponding policies in the Growth Plan, 2017.

2 Methodology Approach

This Section describes the key guiding principles that the Methodology is based on, provides an overview of Growth Plan policy areas and planning periods that are the foundation for the Methodology, and summarizes the proposed approach.

2.1 Guiding Principles

The Methodology has been designed based on a number of guiding principles that address municipal experience and stakeholder feedback received throughout the course of Growth Plan implementation to date.

1. Conformity

   The methodology must conform with the Growth Plan, 2017.

2. Function and Use

   The methodology must be used by upper- and single-tier municipalities to determine the total quantity of land needed to accommodate forecasted growth, including the need for any *settlement area* boundary expansions and the quantity of any *excess land*. It does not determine the location of any *settlement area* boundary expansion or *excess land*.

3. Transparency and Consistency

   The methodology must provide a standardized approach to assessing land needs that enables comparison and contrast of key elements across municipalities.

4. Clarity and Ease of Implementation

   The methodology must provide a clear set of requirements that can be easily followed by upper- and single-tier municipalities of various sizes and contexts.

2.2 Policy Areas and Planning Periods

The Methodology will involve steps that clearly demonstrate how key Growth Plan policy requirements have been met by accommodating growth in different Growth Plan geographies or **"policy areas"** and over different **"planning periods"**. The following is an overview of these policies.

Growth Forecasts

The Growth Plan requires that the population and employment forecasts contained in Schedule 3 must be used by upper- and single-tier municipalities for planning and managing growth in the *GGH*. These are the only forecasts that can be used for the purposes of land needs assessment.

Growth Plan Policy Areas

The Growth Plan identifies key **policy areas** that are to be used when allocating and planning for growth.

Settlement Areas

Settlement areas are identified in official plans based on the definition in the Growth Plan.

The output of a land needs assessment will be a conclusion as to whether there is a sufficient amount of land in *settlement areas* to accommodate forecasted growth. This includes whether there is a need to expand *settlement areas* or whether there is *excess land*, and for what purposes (residential or employment) and in what quantity. A land needs assessment undertaken in accordance with the Methodology will not determine the location of any proposed *settlement area* boundary expansions. This would be determined later in the *municipal comprehensive review* process, after the land needs assessment and other background analysis have been completed.

Delineated Built-up Areas and Undelineated Built-up Areas

For certain *settlement areas*, the *delineated built-up area* is the area that was already built when the Growth Plan first took effect in 2006. For other *settlement areas* that were small, unserviced and were not expected to be the focus of growth, a built boundary was not delineated. *Settlement areas* that do not have a *delineated built boundary* are called *undelineated built-up areas*.

A key change in the Growth Plan 2017 is to clearly identify that *delineated built-up areas* are to be the focus for accommodating growth, and that growth is to be limited in *undelineated built-up areas*. Only development in *delineated built-up areas* can be counted towards the achievement of the intensification target (see below).

Designated Greenfield Area

The *designated greenfield area* is all lands within *settlement areas*, but outside of *delineated built-up areas*. This includes all lands within *undelineated built-up*

areas, although the policies require that growth is to be limited in these *settlement areas*.

Forecasted growth will be allocated to the *designated greenfield area* and this will be followed by an assessment of whether any new *designated greenfield area* is needed based on the density target that applies. The location of any new *designated greenfield area* would be determined later in the *municipal comprehensive review* process after their land needs assessment has been completed.

Rural Areas

The Growth Plan directs the vast majority of growth to *settlement areas* and restricts development outside of *settlement areas* in rural areas (i.e. *rural lands*, *prime agricultural areas*). Recognizing that a very small proportion of forecasted growth may occur in these rural areas, this must be accounted for in the land needs assessment.

While the Growth Plan policies require that growth must be limited in *undelineated built-up areas*, these are still *settlement areas* and are therefore not considered rural areas unless they are no longer identified as *settlement areas* in the applicable official plan.

Employment Areas

Employment areas are areas designated in an official plan for clusters of business and economic activities and in which residential development is prohibited. The Growth Plan requires that *employment areas*, including *prime employment areas,* be designated in upper- and single-tier official plans. While there are many jobs located throughout community areas as well, *employment areas* are specifically protected for certain types of employment uses.

A certain proportion of jobs will be allocated to *employment areas* and then it will be determined whether there is a sufficient amount of land in *employment areas* that will be protected for employment uses to the Growth Plan horizon.

Growth Plan Targets and Planning Periods

Intensification Target

The intensification target is the minimum percentage of the total new residential development (dwelling units) occurring annually required to be within the *delineated built-up area*. Any limited growth that will occur in *undelineated built-up areas* does not count towards the achievement of the intensification target.

The Growth Plan establishes three **planning periods** for measuring the intensification target:

- from July 1, 2017 until the next *municipal comprehensive review* is approved and in effect;
- from the time the next *municipal comprehensive review* is approved and in effect until 2031; and
- from 2031 to the Growth Plan horizon.

For the first planning period (between July 1, 2017 and the next *municipal comprehensive review*), the intensification target that is currently in effect in the applicable upper- or single-tier official plan continues to apply.

For subsequent planning periods, the Growth Plan policies require certain minimum targets to apply. However, in order for a municipality to determine what an appropriate intensification target will be for each of those planning periods, they will undertake an assessment of the population and employment capacity and anticipated growth of *urban growth centres*, *major transit station areas* and other *strategic growth areas* to the Growth Plan horizon, based on the applicable density targets and other Growth Plan policies. Where this assessment concludes that a significant amount of growth is anticipated in these areas within the Growth Plan horizon, municipalities should consider setting higher intensification targets than the minimums provided for in the Growth Plan, 2017 and use this higher target as an input into the land needs assessment.

The minimum intensification targets required by the Growth Plan policies are as follows:

- Between the time of the next *municipal comprehensive review* and 2031, a minimum of 50 per cent of all new residential development occurring annually is to be accommodated with *delineated built-up areas*.
- Between 2031 and the Growth Plan horizon, municipalities must accommodate 60 per cent of all new residential development occurring annually in *delineated built-up areas*.

Alternative intensification targets may also be considered, but only where specifically permitted by the Plan and where a municipality can demonstrate that the minimum intensification target established in the Plan cannot be achieved in the applicable planning period. Any targets lower than the minimum intensification target established by the Growth Plan, 2017 must conform with all applicable policies in the Plan and be permitted by the Minister.

Municipalities should obtain permission to use alternative targets prior to undertaking a land needs assessment.

The intensification target is fundamental to land needs assessment because it determines the minimum amount of residential development that must be allocated to *delineated built-up areas* and, in doing so, limits the amount that can be allocated to other areas (i.e. *designated greenfield area*, rural areas).

Designated Greenfield Area Density Target

The *designated greenfield area* density target is the minimum density, measured in people and jobs combined per hectare, that municipalities are required to plan to achieve (by the Growth Plan horizon) within the *designated greenfield area*. The *designated greenfield area* density target varies between the *inner ring* and *outer ring*, and, in the *inner ring* between existing and new *designated greenfield area.*

The minimum density targets for the *designated greenfield area* required by Growth Plan policies, which must be planned to be achieved by the Growth Plan horizon, are as follows:

- For the existing *designated greenfield area* in the *inner ring*, municipalities must plan to achieve an increase in the density that is currently planned. After changing how the minimum density target is measured and planning to increase the density of the lands that are subject to the target, the density target cannot be less than 60 people and jobs combined per hectare. The policies allow for alternative targets to be considered for these lands (see below).
- For the new *designated greenfield area* in the *inner ring* that is added through the next *municipal comprehensive review* (or a subsequent *municipal comprehensive review*), the minimum density target will be 80 people and jobs combined per hectare. The policies do not allow for alternative targets to be considered for these lands.
- In the *outer ring*, municipalities must plan to achieve a minimum density target of 80 people and jobs as an average across both the existing and the new *designated greenfield area*. The policies allow for alternative targets to be considered for these lands.

As with the intensification targets, alternative density targets may also be considered, but only where specifically permitted by the Plan and where a municipality can demonstrate that the minimum density target established in

the Plan cannot be achieved on the applicable lands within the Growth Plan horizon. Any targets lower than the minimum density targets established by the Plan must conform with all applicable policies in the Plan and be permitted by the Minister. Municipalities should obtain written permission to use alternative targets prior to undertaking land needs assessment.

The density of the *designated greenfield area* is measured over the entire applicable *designated greenfield area* of each upper- or single-tier municipality, excluding the features and areas specifically identified in Growth Plan policy.

The density target for the *designated greenfield area* is fundamental to land needs assessment because population and jobs allocated to the *designated greenfield area* must be accommodated at, or above, the minimum density requirements set out in the Growth Plan.

Employment Area Density Targets

The Growth Plan requires that a minimum density target for all *employment areas* is to be established by upper- and single-tier municipalities through the development of an employment strategy as part of the *municipal comprehensive review* process. The *employment area* density target is the minimum density, measured in jobs per hectare, required to be achieved across all *employment areas,* including *prime employment areas*, that are designated in the upper- and single-tier official plan.

The *employment area* density target will be the key determinant of *employment area* need.

Employment areas and *prime employment areas* that are designated in upper- and single-tier official plans are excluded from the calculation of the minimum density target for the *designated greenfield area*. Employment lands or clusters of employment located within *designated greenfield areas* that are not designated as *employment areas* or *prime employment areas,* in upper- and single-tier official plans cannot be excluded from the *designated greenfield area* density target calculation and therefore remain subject to the *designated greenfield area* density target.

The Methodology will require an assessment of how many forecasted jobs will be accommodated in *employment areas* in settlement areas, including how many of those can be accommodated in existing *employment areas* in settlement areas. The application of the *employment area* density target to the jobs that cannot be accommodated in existing *employment areas* in settlement

areas will then determine how much new *employment area* land will be needed in *settlement areas* to accommodate these jobs.

Existing and future jobs in *employment areas* within rural areas are addressed in the Methodology through provisions that account for the accommodation of a modest amount of forecasted growth in the rural areas.

Urban Growth Centre and Major Transit Station Area Density Targets

The Growth Plan establishes minimum density targets for *urban growth centres* and *major transit station areas*. The minimum density targets required by the Growth Plan policies are as follows:

- For *urban growth centres*, municipalities must plan to achieve, by 2031 or earlier, specific densities ranging from 150 to 400 residents and jobs combined per hectare (refer to policy 2.2.3.2). For the purposes of intensification analysis, municipalities must assume that these planned densities will be achieved within that planning period. The policies do not allow for alternative targets.
- For *major transit station areas* on *priority transit corridors* and existing subway lines, municipalities must plan for specific densities ranging from 150 to 200 residents and jobs combined per hectare (refer to policy 2.2.4.3). Municipalities are required to plan for these areas to meet these densities by the Growth Plan horizon, however, there is a level of flexibility regarding assumptions for timing for build-out in these areas that does not exist for the other density targets in the Plan.

These targets will not be a direct input into land needs assessment. However, they will be an indirect input because the growth that is to be accommodated in these areas to achieve these targets must be taken into consideration in setting the intensification target for the *delineated built-up area* and the density target for the *designated greenfield area*.

2.3 Overview of Methodology

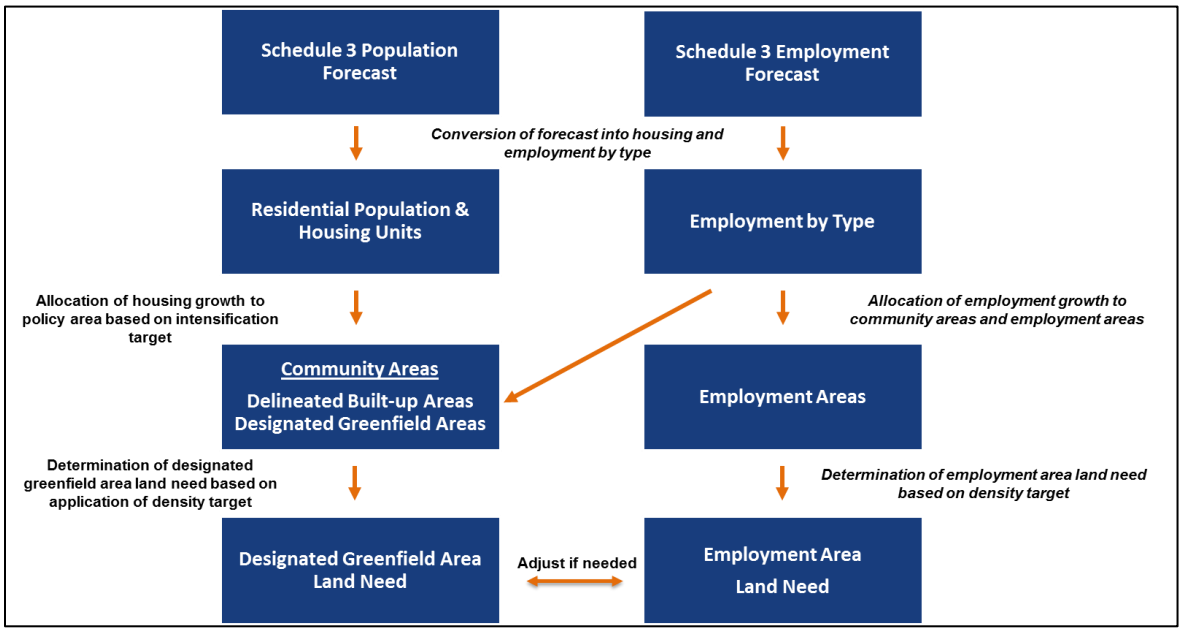
The Growth Plan, 2017, establishes a framework to optimize the use of existing land within *settlement areas* to avoid over designating land for future urban development. The Methodology takes a policy-led approach to determining how much land is needed in each upper- or single-tier municipality to accommodate forecasted population and employment growth to the Growth Plan horizon, as illustrated in Figure 2. Refer to Sections 3 and 4 for the technical details of the Methodology.

In accordance with policy requirements, the key determinants of land needs in the *GGH* are the intensification target for the *delineated built-up area*, the density target for the *designated greenfield area*, the density target for *employment areas* and the population and employment forecasts.

Land needs will be assessed based on two different areas:

- 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 the *designated greenfield area* (excluding *employment areas*).
- *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* (including *prime employment areas*) may be located in both *delineated built-up areas* and the *designated greenfield area*.

Figure 2: Proposed Methodology - general approach



As noted above, the population and employment forecasts for upper- and single-tier municipalities in Schedule 3 of the Growth Plan provide the starting point for land needs assessment. Population growth will only occur in community areas,

but employment growth can occur in both community areas and *employment areas*.

The result of the land needs assessment will be a conclusion on the amount of land needed in the upper- or single-tier municipality to accommodate the forecasts in Schedule 3 of the Growth Plan. Through a land needs assessment in accordance with the Methodology, municipalities in the *GGH* will demonstrate if, in applying the Schedule 3 forecasts and planning to meet applicable Growth Plan policies and targets, there will be a need for additional community area or *employment area* land – or if there will be *excess land* within the municipality – and what the quantum of that land need (or *excess land*) will be in hectares (ha) net of the features and areas that are to be excluded in the measurement of the *designated greenfield area* density target. This will provide a key input into the broader process to implement the Growth Plan through the process of a *municipal comprehensive review*.

2.3.1 Assessing community area land need

The steps for assessing community area land need will focus on the total quantity of housing needed to accommodate forecasted population growth and the number of jobs to be accommodated in community areas. Refer to Section 3 for the technical steps in determining community area land need.

The determination of population and housing growth by location, and associated community area land need, will be derived from the forecasts in Schedule 3 of the Growth Plan and the application of Growth Plan targets to allocate growth.

- First, a specific minimum proportion of new residential units (and hence population) will be allocated to the *delineated built-up area* based on specific planning periods, in accordance with the applicable intensification targets.
- Second, in recognition of existing development permissions in rural areas, and based on policies that limit but do not prohibit growth in rural areas, a determination will also be made regarding how many residential units (and hence population) will be accommodated in rural areas in each planning period.
- Third, the remaining residential units will be allocated to the *designated greenfield area*. The population associated with these units is then accommodated at the *designated greenfield area* density target in order to determine if additional land is needed.

The Methodology will also assess job growth in community areas, based on an analysis of forecasted employment growth by type. This will be required as an input to identifying employment growth in the *designated greenfield area* to demonstrate meeting the persons and jobs per hectare density target set out in the Growth Plan. Jobs are accommodated at the *designated greenfield area* density target in order to determine if additional land is needed.

The proposed approach is different than some approaches that were taken in the past because it focusses on the total quantity of housing required to accommodate the forecasted population and does not base the assessment of land needs for housing on plans to achieve a particular mix of housing units by type (e.g. single-detached, row house and apartment). This may represent a departure from past approaches in terms of when and how housing unit mix is addressed.

It is the Province's intent that, by basing the land needs assessment on meeting the targets in the Growth Plan, municipalities will plan to accommodate forecasted population growth differently than in the past. There will be increasing proportions of people living in denser housing forms (like townhouses, row houses and apartments, including larger family sized apartments). This is a necessary shift in order to achieve key policy objectives of the Growth Plan:

- to support the achievement of more compact, *complete communities* that are *transit-supportive* and provide a diverse range and mix of housing options that are appropriate for people of all ages and abilities; and
- to protect natural heritage, water and agricultural systems and reduce the rate at which land and vital resources are being consumed for urban uses.

An approach to land needs assessment driven primarily by historic-based assumptions about market demand for specific types of housing, and how much land it might require, would likely be more land consumptive and not effectively implement the policies of the Growth Plan, 2017.

It is important to note that even as housing mix begins to transform in the *GGH*, there will still be a significant supply of lower density ground related units, in part as a reflection of historical building patterns dominated by this form of housing. In addition, application of the broader set of Growth Plan policies is meant to ensure that new and intensifying communities are planned and designed in a way that provide a vibrant public realm, access to amenities, and safe and convenient options for moving around, including transit, walking and cycling.

2.3.2 Assessing job growth and employment area land need

The need for additional *employment area* land to accommodate job growth will also be based on application of Growth Plan policies to specific policy areas. Refer to Section 4 for the technical steps in determining land needed for employment.

Growth Plan policy requires that municipalities make more efficient use of *employment areas* and plan to achieve a specific minimum density target in *employment areas* across the upper- or single-tier municipality. This density target will be determined by municipalities through the development of an employment strategy. When planning locations for employment, municipalities will also address Growth Plan policy requirements to:

- Direct *major office* and appropriate institutional development to *urban growth centres*, *major transit station areas* and other *strategic growth areas* with existing or planned *frequent transit* service;
- Direct retail and office uses to locations that support *active transportation* and have existing or planned transit;
- Prohibit institutional, other *sensitive land uses*, and retail and office uses that are not associated or ancillary in *prime employment areas*;
- Prohibit *major retail* or establish a size and scale threshold to prohibit any *major retail* exceeding this threshold in *employment areas*; and
- Provide for economic activity on *rural lands* that is appropriate in scale and type to the rural context, for example, management and use of resources, resource-based recreational uses and other rural land uses not appropriate in *settlement areas*.

Municipalities will be required to determine the distribution of forecasted employment to four categories:

- Population-related employment. This is employment that primarily serves a residential population and includes *major retail*, retail, education, healthcare, local government and work-at-home employment.
- Major office employment. This is office employment contained within free-standing buildings more than 20,000 net square feet (1,858 m^2), based on the threshold where most office building data collection occurs. This differs from the 4,000 m^2 size threshold that is used in Growth Plan

policy for determining the size of buildings that must be located near existing or planned *frequent transit.*

- Employment land employment. This is employment accommodated primarily in industrial-type buildings. The vast majority is located within business parks and industrial areas (i.e. *employment areas*) within *settlement areas*.
- Other rural-based employment. These are jobs scattered throughout *rural lands* and include agriculture and primary industries as well as other uses that might typically be found in existing *employment areas* located outside of *settlement areas* on rural lands.

Many municipalities in the *GGH* already use these, or similar, employment categories.

The distribution of jobs by type to the four categories will be based on policy direction and the particular characteristics of the municipality. The share of population-related employment in each municipality will, for the most part, be tied to the growth in the population requiring services. For some municipalities, this will also include jobs considered as "regional" population-related employment, particularly where there are concentrations of region-wide services such as hospitals, universities, government administration and specialized downtown shopping or jobs serving a concentrated tourist industry. The Methodology will provide for municipal-specific analysis of the employment base and the future growth outlook of employment by type within the context of the Schedule 3 total employment forecast.

Once the distribution of jobs by type is completed, the Methodology determines *employment area* need as follows:

- First, a municipality will determine how many jobs will be accommodated in community areas and how many will be accommodated in *employment areas*. It will be expected that the vast majority of employment land employment will be accommodated in *employment areas*, and the majority of *major office* and population related employment will be in community areas.
- Second, as discussed above, community area jobs will be allocated to the *delineated built-up area* and the *designated greenfield area*. Jobs in the *designated greenfield area* will be accommodated at the *designated*

greenfield area density target in order to determine if additional land is needed to accommodate community area job growth.

- Third, an assessment will be made of how many of the jobs allocated to *employment areas* can be accommodated in existing *employment areas* in the *delineated built-up areas* and the *designated greenfield area*. The remaining jobs are then accommodated using the minimum *employment area* density target in order to assess if additional *employment area* is needed.

3 Determine Community Area Land Need

This Section provides direction on how the upper- or single-tier municipality will assess forecasted residential growth and determine the amount of community area land needed (in hectares). The result will be a conclusion on how many residents and community area jobs are to be planned for in each of the policy areas (*delineated built-up areas*, *designated greenfield area* and rural areas), with implications for the amount of additional land needed to accommodate forecasted growth to the Growth Plan horizon (or *excess lands*).

Each step in this Section is explained using the same set of sub-headings: Purpose; Method; Inputs/Data Sources and Assumptions. In some instances there could be flexibility in different inputs/data sources or assumptions used in applying the Methodology, but in those cases any deviations from those outlined below will need to be substantiated. An example box using a hypothetical upper- or single-tier municipality is also provided for each step.

3.1 Overview

The first part of the land needs assessment will involve steps to determine where and how forecasted population and community area job growth will be accommodated within the upper- or single-tier municipality in order to meet Growth Plan targets and the amount of urban land needed to accommodate that growth.

Schedule 3 of the Growth Plan provides population forecasts that must be converted into housing units. Forecasted growth will then be assessed in terms of the amount, timing and location of total housing units and population by policy area, in a manner that will meet Growth Plan *intensification* and density targets. Using the Schedule 3 forecasts as a basis, the municipality will assess the number of housing units and population in the *delineated built-up area*, in rural areas, and in the *designated greenfield area* as a basis for determining land needs to the Growth Plan horizon. The allocation of forecasted jobs to the community area will also be factored into the assessment of *designated greenfield area* density and community area land need.

As noted, the Methodology will not require a specific housing unit mix to be determined, as this level of detailed land-use planning is to be completed later in the *municipal comprehensive review* process. Land need is driven by the Growth

Plan targets, which require a minimum overall housing allocation to *delineated built-up areas* and a minimum planned density (measured in people and jobs per hectare) for the *designated greenfield area*. These two policy directions taken together, are the key determinants of land need.

While general options for housing mix may be part of the background analysis undertaken to support land needs assessment, only the overall housing totals will be required as an input into the proposed policy-led approach to land needs assessment.

There are six main steps for determining residential growth by policy area and establishing community area land need:

- Step R1: Establish Population Growth by Planning Period
- Step R2: Determine Total Number of Housing Units Required to Accommodate Population Growth in Each Planning Period
- Step R3: Determine Allocation of Housing Units to Each Policy Area for Each Planning Period
- Step R4: Determine Population of Each Policy Area
- Step R5: Determine Policy-based Capacity of Community Areas to Accommodate Planned Growth
- Step R6: Determine Community Area Land Need in *Designated Greenfield Area*

Step R1 Establish Population Growth by Planning Period

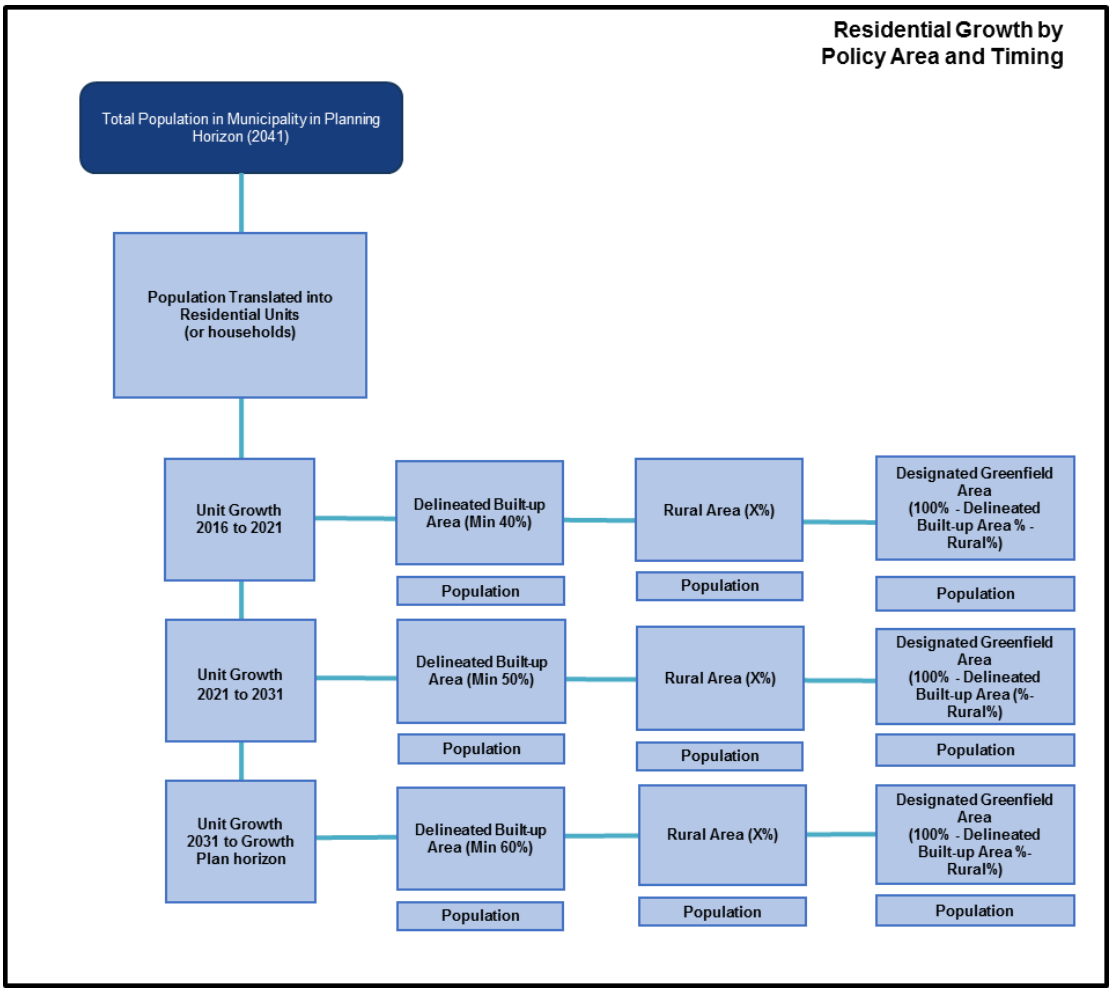
Purpose

The purpose of this step is to determine how many additional people a municipality should plan to house during each planning period to the Growth Plan horizon. This will involve examination of the forecasts in Schedule 3 in terms of total population, Census population and household population for each planning period. This will provide a starting point for determining forecasted household growth and residential land need in accordance with Growth Plan policies.

The Growth Plan provides population forecasts for upper- and single-tier municipalities in Schedule 3. Municipalities need to know population growth to derive housing growth during each of three planning periods (2016 base year to the next *municipal comprehensive review*, the next *municipal comprehensive review* to 2031 and from 2031 to the Growth Plan horizon) in order to apply the Growth Plan intensification targets (refer to Section 2.2).

Step R1 is highlighted in the graphic of residential land needs steps shown in Figure 3.

Figure 3: Residential growth by policy area and planning period



Method

In this step, population growth to 2031 and from 2031 to the Growth Plan horizon will be determined based on Census base year information (2016 or latest available at the time of the analysis) and the forecasts in Schedule 3 of the Growth Plan.

The Schedule 3 population forecasts are total population including Census net undercoverage. For the purposes of land needs assessment, it will be necessary to identify not only the total population but also the Census population, including a further breakdown into household and non-household populations.

- Census population is those people counted in the Census every 5 years.
- Total population is Census population adjusted upward to account for Census net undercoverage (which are those people missed by the Census less those who have been double counted).
    - Net undercoverage is estimated by Statistics Canada and in most areas of Ontario is between 3 per cent and 4 per cent of the total population.
    - Growth Plan Schedule 3 population forecasts are expressed in total population.
- Census population can further be divided into household population and non-household population:
    - Household population refers to persons who reside in a private household and have a usual place of residence, that is, the permanent population in households.
    - Non-household population includes residents of institutions and collective dwellings such as long-term care facilities, correction institutions, group homes, and some student residences and senior homes.

These components of the population will need to be identified for the base year and Growth Plan horizon year as inputs to subsequent steps in the Methodology. In particular, the count of households or occupied dwelling units from the Census are tied to the Census population and the household population. As explained in detail in Explanation Box 1, since Growth Plan policies only apply to municipalities, populations residing outside of municipalities (i.e. populations living on First Nations reserve) are not counted.

Explanation Box 1: How are Indigenous communities treated in the Schedule 3 forecasts and the Proposed Methodology?

Seven *GGH* Census Divisions include reserves under the federal Indian Act: York, Durham, Simcoe, Northumberland, Peterborough, Haldimand-Norfolk and Brant. While part of the broader *GGH* with an interest in the long-term growth of the region, for forecasting and land needs assessment purposes, Indigenous communities are not included in the population or other calculations. These communities are separately governed and are not subject to provincial or municipal jurisdiction in land-use planning matters. The Schedule 3 forecasts do not include the on-reserve Indigenous populations.

Some Indigenous reserves are not completely enumerated in the Census. As a result, the estimated Census net undercoverage in Brant tends to be very high to partly compensate for the incomplete enumeration. For the purposes of Step R1 of the Proposed Methodology, Brant County and the City of Brantford should apply a standard Census net undercoverage rate to their Census populations since the high rate is associated with Six Nations itself, rather than its neighbouring communities. This specific issue does not exist elsewhere in the *GGH*.

For the base year information, Statistics Canada provides Census population and household and non-household population as well as information to calculate Census net undercoverage rate.

- First, the base year Census population is adjusted by the undercoverage rate to identify total population for consistency with the Schedule 3 forecasts.
- For the forecast years, the total population forecast from Schedule 3 is adjusted to determine the Census population by applying the base year Census net undercoverage rate (from the last available Census at the time of land need assessment). Census net undercoverage is typically 3 per cent to 4 per cent of the total population and the information is typically available about two years after the Census date.
- The rate of non-household population (typically 0.5 per cent to 2 per cent of the Census population) is then applied to the Census population forecast in order to project the household and non-household population at 2031 and the Growth Plan horizon.

The result will be an upper- or single-tier municipal-wide base year and forecast for 2031 and the Growth Plan horizon for each of the following:

- Total population including Census net undercoverage;
- Census population; and
- Household and non-household population.

Further detailed explanation of the nature of Census net undercoverage and why both total and Census population are used in the Methodology is provided in Explanation Box 2.

Inputs / Data Sources

For the base year, this step will rely on Statistics Canada Census information for Census, household and non-household population as well as the Census net undercoverage rates. The Census net undercoverage rate will be based on Statistics Canada's post-Censal population estimates published in the Annual Demographic Estimates.

Assumptions

The most current available Census information is to be used in establishing the baseline population.

It can be assumed that the ratios for Census net undercoverage and non-household population at the Growth Plan horizon year will be held constant to the ratios observed in the base year.

Typically, the share of non-household population does not change significantly from one Census to the next, so this is usually assumed to remain at a constant rate in the forecasts. If there are large institutional facilities that are not expected to grow at the same rate as the population within the Growth Plan horizon, this share could be adjusted marginally downward to accommodate this change. Any deviation would need to justified and documented.

Depending on the timing of the land needs assessment, the analysis may need to apply the Census net undercoverage rate from the prior Census, as there is typically a significant lag time between the release of Census data and the determination of the Census net undercoverage rate based on Statistics Canada's Annual Demographic Estimates.

An example of Step R1 is provided in Example Box 1 below.

Explanation Box 2: Who are the net undercoverage population and why would some of the analysis use Census population instead of total population?

The Census net undercoverage population are those missed by the Census. They may be missed either because the housing unit they occupy has been missed or the people themselves have been missed (who may or may not be associated with a counted housing unit). Missed housing units could occur anywhere but are most likely those in unusual locations such as within non-residential buildings or secondary suites with no visible entrance from the street. The people that are missed could be for many reasons, but it has been observed that net undercoverage generally tends to be highly concentrated among young adults in their 20s and early 30s and are disproportionately male. Some are people who are simply missed, despite being in a regular household setting. However, many of this group are likely people staying with friends or relatives briefly or in some more informal arrangement. There are those in remote work sites (such as some in Northern Ontario many in Northern Alberta), who may well be missed at wherever they should be counted in the south. As well, there are true homeless individuals, though they would represent a statistically small number of the nearly 300,000 net undercoverage population in the GGH.

The analysis of households and housing would use Census population because the counts are from the same Census source and according to the same definitions. There is no net undercoverage estimate for households and, if there were, it would likely be much smaller than population Census net undercoverage, since it would be a combination of some missed households and some other missed people. Finally, the people and units that are missed by the Census are equally outside the land-use planning process. As a result, the determination of households based on the Census household and population counts would be considered complete for the purposes of land needs assessment.

Example Box 1: Step R1 – establish population growth

The first step will involve the calculations of the population, including the total population (including Census net undercoverage), Census population, the population in private households and the non-household population. The 2031 and 2041 total populations would be from Schedule 3 in the Growth Plan.

In this example, the share of household and non-household population within the Census population is maintained at the 2016 rate of 0.65 per cent non-household population for the forecast period.

The Census net undercoverage rate for 2016, 2031 and 2041 would be assumed to remain at the 2011 level. This could be updated with the 2016 rates, once available through Statistics Canada's Annual Demographic Estimates, expected in 2018.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Externally sourced data	Statistics Canada Census. Schedule 3. Steps R4a, R4b and R4c
	Results needed for a later land needs assessment step	

Population	2016	2031	2041
Total Population (including Census net undercoverage)	714,100	885,000	985,000
Census net undercoverage rate (see note)	3.26%	3.26%	3.26%
Census Population	690,850	856,150	952,890
Household Population	686,300	850,510	946,610
Non-Household Population	4,550	5,640	6,280
Non-Household Population Rate	0.66%	0.66%	0.66%

Source: Statistics Canada Census Schedule 3

Note: Census net undercoverge rate, census population, household population and non-household population for 2016 as well as total population in 2031 and 2041 is externally sourced data. Census population, household population, and non-household population for 2031 and 2041 will be required for Steps R4a, R4b and R4c.

The 2016 new undercoverage rate will not be available until later in 2018. In the meantime, the 2011 Census net undercoverage rate is used for 2016 and subsequent years.

Step R2 Determine Total Number of Housing Units Needed to Accommodate Population Growth in Each Planning Period

Purpose

The next step in establishing the residential growth outlook will be to translate the population forecast in Schedule 3 for each planning period into residential development (i.e. housing units). The purpose of this step will be to determine the overall households and housing unit growth in the upper- or single-tier municipality that will be needed to accommodate the Schedule 3 population forecast to 2031 and to the Growth Plan horizon. The assessment to 2031 will be needed because the annual minimum intensification target is required by policy to increase in 2031.

An additional part of this step will be to estimate the total number of households in the municipality at the date of the *municipal comprehensive review*, which could be any year between 2018 and 2022. This will involve updating the 2016 household count (from the Census) to the *municipal comprehensive review* date. This will be necessary because the annual rate of intensification between 2016 and the *municipal comprehensive review* date will likely be different from the minimum 50 per cent annually required from the *municipal comprehensive review* date going forward. For this planning period, the annual intensification target that was approved and in effect in the applicable upper- or single-tier official plan will continue to apply.

Housing units expected to be built that are not likely to be occupied by usual residents (the permanent population) can be added to the households to provide the total housing unit growth. These additional housing units may be vacant or could be occupied by students or otherwise used exclusively for recreational purposes on a seasonal basis. The addition of these units is prudent because the annual intensification target in the Plan policies applies to all units constructed, not just those housing permanent population. However, the non-permanent population associated with these units will not be counted for the purposes of planning to achieve the minimum density targets, which are measured in people and jobs (refer to Step R4).

The population forecast will be assessed in terms of the propensity of people in different age groups to form households which need housing units, in order to determine associated land need to accommodate the Schedule 3 population forecast to 2031 and the Growth Plan horizon.

Growth Plan policy 2.2.1.5 requires upper- and single-tier municipalities to assess the quantity of land needed to accommodate forecasted growth to the Growth Plan horizon through this Methodology.

The Growth Plan also establishes requirements for accommodating a certain proportion of new housing units within *delineated built-up areas* and these requirements differ for the different planning periods. So the total new housing units are needed for these planning periods in order to apply the applicable *intensification* target.

Similarly, for the shorter planning period from 2016 to the *municipal comprehensive review* date, the intensification target may be different from the minimum of 50 per cent annually that will be required once the *municipal comprehensive review* is completed.

Method

For this step, a forecast of Census population by age is needed. Age-specific household formation rates are applied to the forecast Census population by age in order to identify the forecasted growth of households. Household growth equates to occupied housing unit growth for each of the planning periods.

A household formation rate will be applied in order to project the number of households expected to be created from a given population. The proposed method is best understood by reviewing the example. In the Step R2a example in Example Box 2, for those aged 30-34, 35.1 per cent are a primary household maintainer (Adult person #1 on the Census form). If there were growth of 1,000 people in this age group, an additional 351 households would be expected. The reason this will be an important factor to consider is that the number of households expected from a given number of people in an age group tends to change significantly by age, therefore the projected number of households is generally related to the forecasted age-structure.

Totaling the households for each age group at the forecast years of 2031 and the Growth Plan horizon will provide a total household count, as shown in Example Box 2.

An overall average persons per unit (PPU) in households will be derived from this step by the simple division of the household counts into the household population from Step R1.

The part of this step that involves the household count at the *municipal comprehensive review* date will not be based on the larger demographic trends, but rather on known housing construction and planned development. This will be a more reliable approach to estimating growth in households for short near-term periods. If, for example, at mid-year 2019, the municipality was estimating growth from 2016 to the end of 2019, it will be estimated as units completed from Census day 2016 to mid-2019 plus the share of units under construction at that time that were expected to be completed by the end of 2019. The addition of the *municipal comprehensive review* date is shown as Step R2b in the example in Example Box 3.

The final part of this step will involve adding expected new housing units that are not likely to be occupied by usual residents. These will be added to the household growth already determined to provide the total housing unit growth. Additional detail on the nature of these units is provided in Explanation Box 3.

Inputs / Data Sources

Completion of this step will rely upon data from two sources: Statistics Canada Census data and a municipally prepared age-structure forecast. The 2016 population age structure data is available directly from the Statistics Canada website. The private households by age of household maintainer data, used to calculate the household formation rates is also available from Statistics Canada, but as a special run. There are standard methods for preparing age structure forecasts, which are described in the background reports that support the Schedule 3 forecasts and the Ministry of Finance's regular demographic forecast updates.

The short-term housing completions and units under construction data that will be used to estimate the short-term household growth from 2016 to the *municipal comprehensive review* date is available for most municipalities from published Canada Mortgage and Housing Corporation (CMHC) housing market data. Alternatively, municipalities can use their own building permit tracking systems to provide this data (e.g. data regarding actual and planned housing units under construction and in the building permit approval process).

Explanation Box 3: What about units that are not occupied by permanent residents?

The land needs assessment will determine the amount of land needed in an upper- or single-tier municipality in order to accommodate the population and employment forecasts in Schedule 3 of the Growth Plan. The Schedule 3 population forecasts are of permanent population thus the associated housing growth outlook must be of housing units occupied by usual residents. There are, however, three other notable contributors to residential unit demand that are not attributed to permanent population that need to be addressed and may count toward meeting intensification targets for residential development occurring within *delineated built-up areas*. However, these units do not count towards meeting density targets for residents and jobs in the *designated greenfield area* or accommodation of the Schedule 3 population forecast.

Firstly, a portion of the total dwellings in any municipality will be vacant and not house any population. This typically represents a very small portion (likely 1-2 per cent) of housing stock, which is, for the most part, located within standing stock of units.

Second, in communities with post-secondary institutions, some students may occupy housing units but report themselves as permanent residents in another municipality. Generally, existing student housing is predominately located within *delineated built-up areas*, thus does not generate demand for new *designated greenfield area* land. While there is nothing to limit municipalities from planning for student residences in *designated greenfield areas*, the students residing there would not count towards achievement of the minimum density target.

A third type of residential unit that does not house permanent population, is seasonal and recreational dwellings. While these units do occupy land and generate demand for units, this component of housing stock is overwhelmingly located in rural areas, for example, in countryside settings and along shorelines. There are only a few municipalities within the GGH where seasonal and recreational units are located within *settlement areas*.

Establishing a suitable number of vacant units for the analysis could be based on some municipal information if it is collected, CMHC data on rental housing for that portion of the market, or other sources of information that support establishing a reasonable figure for the analysis to account for vacancies between tenants, between owners or during renovations (such as 1 per cent of the overall new units over the period). New units occupied by non-permanent residents (mainly by students or others with a permanent residence elsewhere) will be an additional factor. This will vary depending on the community, but will likely be quite small in most locations[1]. Again, these figures must be substantiated in the land needs assessment through reasonable and robust data/evidence.

Assumptions

In general, it can be assumed that household formation rates in 2031 and 2041 will not vary significantly from 2016. If different rates are assumed, a clear rationale should be provided for why. Further explanation of the nature and history of household formation rates is provided in Explanation Box 4. The forecasted households based on household formation rates is shown in Example Box 2. The resulting household forecast with the estimated household count at the municipal comprehensive review completion date is shown in Example Box 3. The addition of units not occupied by usual residents is shown in Example Box 4.

[1] The Census reports total dwelling units as well as those occupied by usual residents. It is often supposed that the difference between these represents the number of units not occupied by usual residents that is being described here. The Census figure is much higher, however, as it appears to include a large number of recently or nearly completed new units that have not yet been occupied by the purchaser as well as a large number of units that once existed but are no longer available (such as secondary suites, divided houses, rectories and caretaker suites that no longer exist).

Explanation Box 4: Age-specific household formation rates have been declining for 25 years

Census data shows that household formation rates have been gradually declining for all age groups over the past 25 years. The comparison in the table below shows that the change has not been too significant in the middle age groups, but it has been very noticeable in the young adult age groups and those 70–74. The table also includes data from the 2001 Census to demonstrate that this has been a continuous gradual change.

The change in young adults is owing to two factors: more people in these age groups are staying in their parent(s) homes for longer than they did in the past; and more young adults are sharing accommodations (i.e. have roommates) than they had in the past. Both of these are related to a number of factors but increasing enrollment in post-secondary education and cost of living are likely among the reasons.

For those in their early 70s, the change is primarily related to longevity. That is, as people live longer, a larger proportion of the population are couples and a smaller proportion are widow(er)s. This same shift is occurring amongst those in their late 70s and 80s, but is balanced in the overall 75+ age group by those aged 90+, who have a low headship rate but are an increasing proportion of the total 75+ age group.

As a result, a forecast of stable age-specific household formation rates in most jurisdictions would be reasonable given the past pattern, but also recognizing that the rates cannot keep declining indefinitely.

Census Age	Household Formation Rate by Age of Primary Household Maintainer 1991	Household Formation Rate by Age of Primary Household Maintainer 2001	Household Formation Rate by Age of Primary Household Maintainer 2016	1991 to 2016 Change
15 - 19	1.6%	1.2%	1.4%	-0.2%
20 - 24	15.0%	11.6%	11.3%	**-3.7%**
25 - 29	36.4%	31.5%	29.8%	**-6.7%**
30 - 34	47.1%	44.3%	42.1%	**-5.0%**
35 - 39	51.2%	50.6%	48.6%	-2.6%
40 - 44	54.1%	53.3%	51.4%	-2.7%
45 - 49	56.0%	54.8%	54.2%	-1.8%
50 - 54	56.2%	55.8%	55.5%	-0.7%
55 - 59	56.4%	56.2%	55.6%	-0.8%
60 - 64	56.7%	55.4%	55.6%	-1.1%
65 - 69	57.8%	57.2%	56.3%	-1.5%
70 - 74	60.6%	58.5%	56.2%	**-4.4%**
75 +	56.8%	59.0%	56.2%	0.7%

Example Box 2: Step R2a – translate population into housing units

The second step will provide the household forecast based on applying household formation rates (also known as headship rates) to a forecast of population by age. The calculations will be based on Census counts of units occupied by usual residents and the Census population (not including Census net undercoverage). Preparation of a population forecast by age and a household forecast by age-specific household formation rates are standard analyses normally undertaken by most municipalities as part of their long-range planning work.

The result of this part of the analysis will be the forecast of total occupied housing units (households) for 2031 and 2041 that will be needed to accommodate the population forecasts in Schedule 3.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Externally sourced data	Statistics Canada Census
	Data or assumptions from other MCR work	Age structure forecast prepared by municipality
	Results needed for a later land needs assessment step	Step R2b, household counts

Household Forecast

Census Age	2016 Population by Age	2016 Households by Age of Primary Household Maintainer	2016 Household Formation Rate	2031 Population by Age	2031 Households by Age of Primary Household Maintainer	2041 Population by Age	2041 Households by Age of Primary Household Maintainer
15 - 19	48,680	430	0.9%	53,030	470	58,750	520
20 - 24	52,720	2,790	5.3%	55,100	2,920	58,080	3,070
25 - 29	48,800	9,560	19.6%	54,680	10,710	57,770	11,320
30 - 34	45,900	16,120	35.1%	58,410	20,510	62,540	21,960
35 - 39	45,440	19,990	44.0%	63,750	28,040	64,980	28,590
40 - 44	48,260	23,810	49.3%	58,750	28,990	66,200	32,660
45 - 49	51,790	26,650	51.5%	54,940	28,270	67,070	34,510
50 - 54	54,340	29,300	53.9%	49,570	26,730	58,870	31,740
55 - 59	47,020	24,800	52.7%	46,760	24,660	52,320	27,600
60 - 64	37,620	19,140	50.9%	46,960	23,890	46,130	23,470
65 - 69	31,150	15,620	50.1%	47,790	23,960	43,330	21,730
70 - 74	21,750	10,700	49.2%	41,070	20,200	43,550	21,420
75 - 79	15,480	7,360	47.5%	31,740	15,090	43,150	20,520
80 - 84	10,260	5,350	52.1%	23,990	12,510	34,020	17,740
85 - 89	5,790	2,520	43.5%	13,310	5,790	21,890	9,530
90+	3,620	980	27.1%	8,420	2,280	16,510	4,470

Census Age	2016 Population by Age	2016 Households by Age of Primary Household Maintainer	2016 Household Formation Rate	2031 Population by Age	2031 Households by Age of Primary Household Maintainer	2041 Population by Age	2041 Households by Age of Primary Household Maintainer
Total Households		**215,120**			**275,020**		**310,850**

Note: 2016 population by age and 2016 households by age of primary household maintainer are externally sourced from Statistics Canada Census data. Age structure forecasts prepared by a municipality are used for the 2031 and 2041 population by age figures. Total households by age of primary household maintainer for 2016, 2031 and 2041 will be required for Step R2b.

Example Box 3: Step R2b – translate population into housing units

This latter part of step will add the units for the interim years from 2016 to the date of the *municipal comprehensive review*. As also noted in the text, the effective date of the *municipal comprehensive review* is shown as 2021* for convenience in the tables, although the date could be any year between now and 2022, depending on when a municipality completes its work and the implementing official plan (or amendment) is likely to obtain final approval and take effect.

The units added from Census Day 2016 to 2021* would not be forecast demographically but rather estimated based on housing construction data, which could be CMHC housing completions and under construction data, Statistics Canada's reported municipal building permit data or the municipality's own building permit data. With any of these sources, new units added from mid-2016 to completion of those currently under construction (accounting for the time to complete units) would address most of the period. The remaining time to 2021* could be estimated based on this recent activity.

The result would be the forecast households and household growth for the three planning periods needed for the remainder of this step and the next step.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	From other municipally-prepared analysis, CMHC data or Building Permits
	Figure from another land needs assessment step	Step R2a, total households
	Results needed for a later land needs assessment step	Step 3 for household counts by policy area

Household Forecast by Forecast Period, including 2021*

Planning Period	Total Households	Planning Period	Household Growth
2016	215,120		
2021*	234,830	2016-2021	19,710
2031	275,020	2021-2031	40,190
2041	310,850	2031-2041	35,830

Note: Total households for 2016, 2031 and 2041 are figures from Step R2a. Household growth from 2016-2021 is data from other *municipal comprehensive review* work. Household growth from 2021-2031 and 2031-2041 will be required for Step R3.

Example Box 4: Step R2c – translate population into housing units

In the last part of this step, the forecasted household growth and the forecasted growth in units not occupied by usual residents will be added to provide a forecast of total housing unit growth. The units not occupied by usual residents will be vacant, seasonal and recreational or occupied by students that report themselves as living at another location.

In most municipalities, the number of units not occupied by usual residents is likely to be in the range of 1 per cent to 2 per cent of new units. The number that may already exist is not relevant for this step. In this example, the overall figure is based on a total of 2 per cent additional units not occupied by usual residents. A figure higher than 2 per cent might occur in a relatively small community with an especially large number of post-secondary students or in small communities with a large number of seasonal and recreational properties. Beyond a basic vacancy rate in the vicinity of 1 per cent, the assumed number of other new units for students or new recreational properties would need to be thoroughly substantiated through explanatory text as part of this step.

The result would be the forecast of total housing unit growth for the three planning periods required for the next step.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	From other municipally-prepared analysis, CMHC data or Building Permits
	Figure from another land needs assessment step	Step R2a, total households

Housing Unit Growth by Forecast Period, including 2021*

Planning Period	Household Growth	Growth in Housing Units Not Occupied by Usual Residents	Growth in Total Housing Units
2016-2021*	19,710	390	20,100
2021-2031	40,190	800	40,990
2031-2041	35,830	720	36,550

Note: Household growth for all planning periods are figures from Step R2a. Growth in housing units not occupied by usual residents for all planning periods are assumptions from other *municipal comprehensive review* work.

Step R3 Determine Allocation of Housing Units by Policy Area and Planning Period

Purpose

The next step will be to determine the timing and location of housing growth between the *delineated built-up area*, rural area and *designated greenfield area* of the upper- or single-tier municipality. The purpose of this step will be to assess how the housing units projected in Step R2 will be planned for in order to meet Growth Plan direction for the timing and location of residential development by policy area.

The analysis of housing growth by planning period and policy area will address the Growth Plan requirement that a minimum amount of residential development must occur annually within the *delineated built-up area* during each applicable planning period (refer to Section 2.2).

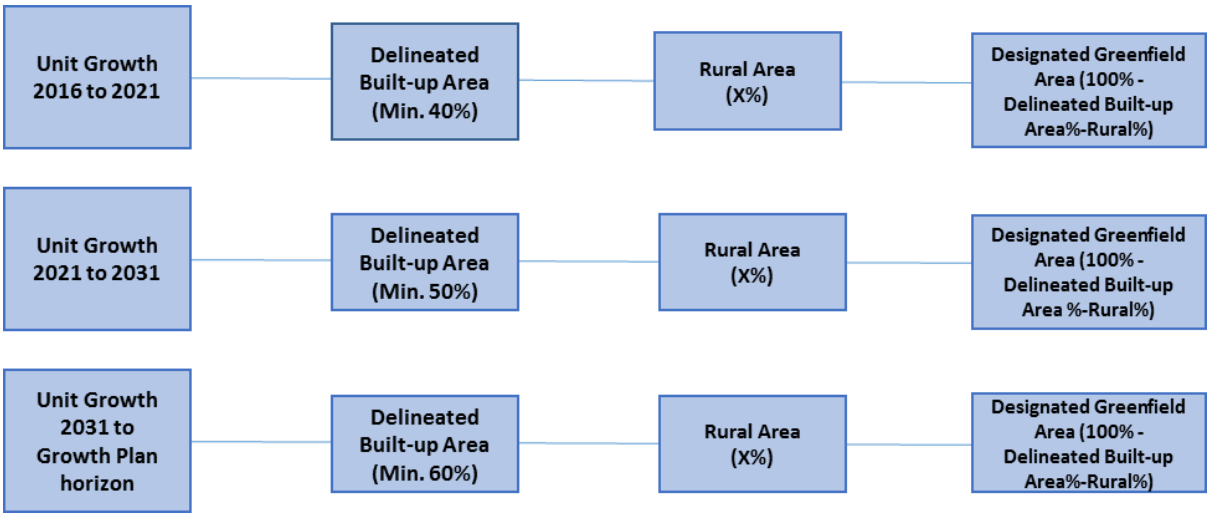
Method

The overall housing unit[2] growth for each of the three planning periods (for the various minimum intensification targets, determined in Step R2) will be allocated to each of the three policy areas.

Figure 4 illustrates how proportions of housing units are to be directed to the three policy areas (*delineated built-up area*, rural areas and *designated greenfield area*) for each planning period.

[2] The allocation to planning periods and policy areas is undertaken on a unit basis which will be translated back to population in a later step in the Methodology.

Figure 4: Step R3



Delineated Built-up Areas

The proportion of total housing growth allocated to the *delineated built-up area*, is based on the applicable intensification target required by Growth Plan policy (refer to Section 2.2).

Rural Area

For each of the three planning periods, upper- and single-tier municipalities may allocate a certain number of units to the rural area. However, this allocation should be minimal, given the policies that restrict the type and amount of development that can occur outside of *settlement areas*.

The amount of growth allocated to the rural areas will likely differ between municipalities. In setting the allocation, the municipality should give consideration to the historic amount of new development in these areas and its recent share of municipal development. The municipality should account for the development expected to occur on the existing supply of approved lots, including existing lots of record or registered or draft approved rural lots. There may be legacy zoning or official plan policies that permit the creation of new lots to a limited extent in some areas. The allocation to rural areas, if any, should be small and should represent very modest demand. In most cases, the allocation will be less than the existing supply, since most rural areas have legacy permissions that are not being developed (such as existing lots of record that may be decades old).

Designated Greenfield Area

Once the *delineated built-up area* and rural area (if applicable) housing unit growth has been determined for each planning period, the balance of forecasted housing units will be allocated to the *designated greenfield area* for each of the three planning periods.

Once the housing units have been allocated to the policy areas, the units not occupied by usual residents will need to be removed from the total housing units to bring the forecast back to that of households that are exclusively occupied by permanent population. In the subsequent steps, which will involve the application of the density target for the *designated greenfield area*, only the permanent population (i.e. the population forecasts in Schedule 3) will be applicable. The permanent population is associated with households, not the total housing units.

Inputs / Data Sources

Household data from the 2016 Census will be needed in order to determine the number of existing households within the *delineated built-up area*, rural area and *designated greenfield area*.

Municipalities will also need to further analyse estimated growth from 2016 to the time of *municipal comprehensive review* in order to allocate the housing growth for that planning period to each of the policy areas. All municipalities have some kind of system in place to track development applications and building permits that can inform this analysis (for example, recent development activity should help to determine the number of household at the time of the *municipal comprehensive review*). Application data can also be used for tracking longer term development activity.

Assumptions

In determining an appropriate intensification target, municipalities will be required to assume that any *urban growth centres* will achieve full build-out at the required densities by 2031. However, for *major transit station areas* on *priority transit corridors* and subway lines, which are also subject to minimum density targets, there will be some limited flexibility to assume that certain stations may not achieve full build-out at the required densities by the Growth Plan horizon. In these cases, analysis will need to done to justify how much of the growth will be expected to happen beyond the Growth Plan horizon.

It must also be assumed that the intensification targets that are applied for each planning period will be achieved on an annual basis, supported by the *intensification* strategy that the Growth Plan requires municipalities to develop and implement through their official plan policies and designations, updated zoning and other supporting documents. Further discussion of the identified intensification potential is provided in Explanation Box *5*. The example of an allocation of unit growth to each of the policy areas is shown as Step R3a in Example Box *5*. Once the units have been allocated to policy areas, the removal of the units not occupied by usual residents (to return the figures back to household counts) is shown as Step R3b in Example Box *6*.

Explanation Box 5: How would the identified *intensification* potential relate to the assumed share of new households in *delineated built-up areas*?

Cataloguing *intensification* potential in most municipalities would be based on adding up vacant lands, under-utilized lands, major anticipated redevelopment sites, some brownfield sites, main street retail or strip malls that may be redeveloped for mixed use and many other types of lands. In policy, these areas are represented as *urban growth centres*, *major transit station areas*, and other *strategic growth areas*. Future housing unit potential in these areas may be calculated based on zoning minimums/maximums or some other assumption of development density. However, for various reasons, the theoretical unit potential from *intensification* typically exceeds the number of units that are likely to be built within a given time period.

The intensification target that will be applied will be based on theoretical potential with reasonable assumptions made about what proportion of redevelopment is likely to occur within each planning period. However, the intensification target cannot be lower than the minimum intensification target set out in the Growth Plan unless the Minister has permitted an alternative target.

Example Box 5: Step R3a – determine allocation of housing units and households by planning period and policy area

This step will allocate the housing unit growth for each of the three planning periods to each of the three policy areas based on Growth Plan policy. The key inputs in this step will be the assumptions for the *delineated built-up area* and the rural area. As described in the text, the allocation to the rural area must be small to reflect policies that restrict new rural residential development while recognizing that there are some lots of record and legacy approvals that may accommodate some growth.

The key input here will be the housing unit allocation to the *delineated built-up area*. The minimums required in the Growth Plan are 40 per cent up to 2021*, 50 per cent from 2021* to 2031, and 60 per cent from 2031 to 2041. The example here shows a higher figure for the first two planning periods.

The result would be forecasted housing unit growth for each of the three policy areas. Having made this allocation to the *delineated built-up area*, the housing unit growth will be restated to remove the units not occupied by usual residents in Step R3b – determine allocation of housing units by planning period and policy area, so that only the units occupied by households will be shown for use in the subsequent steps.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Municipal analysis and policy respecting anticipated rural development
	Policy input	Policy input (this example exceeds the minimum 40%, 50% and 60% *delineated built up area* rates)
	Results needed for a later land needs assessment step	Step R3b households and population by policy area

Forecast Share of Housing Unit Growth by Policy Area

Planning Period	Delineated Built Up Area	Designated Greenfield Area	Rural Area	Total
2016-2021*	49.0%	50.5%	0.5%	100.0%
2021-2031	51.0%	48.5%	0.5%	100.0%
2031-2041	60.0%	39.5%	0.5%	100.0%
Total	**54.0%**	**45.5%**	**0.5%**	**100.0%**

Note: Policy inputs, although they exceed the minimum rates, are used to forecast housing unit growth by delineated built up area. Rural area share of housing unit growth is sourced from municipal analysis and policy.

Forecast Housing Unit Growth by Policy Area

Planning Period	Delineated Built Up Area	Designated Greenfield Area	Rural Area	Total
2016-2021*	9,850	10,150	100	20,100
2021-2031	20,900	19,880	200	40,980
2031-2041	21,930	14,440	180	36,550
Total	**52,680**	**44,470**	**480**	**97,630**

Note: All data for the three policy geographies are results from Step R3b households and population by policy area.

Example Box 6: Step R3b – determine allocation of housing units by planning period and policy area

Once allocation of housing units to the three policy areas has been undertaken, the units not occupied by usual residents will then be removed from the housing unit total to yield the occupied housing unit or household growth for each policy area in each planning period. As noted above, any assumptions about units not occupied by usual residents will have to be substantiated. In this example there is an expectation of about 1 per cent of the unit growth in the *designated greenfield area* to reflect vacant units. A higher figure is applied in the *delineated built-up area* to account for student residences. In the rural area a higher than 1 per cent figure is also applied to account for seasonal and recreational units.

The result will be the forecasted household growth for each of the three policy geographies. Only the totals from 2016 to 2041 will be required for the following steps.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Externally sourced data	Statisitics Canada Census counts by policy geography (may require municipal analysis)
	Figure from another land needs assessment step	From Step R2b, total households
	Results needed for a later land needs assessment step	Step R4b households and population by policy area

Forecast Growth in Housing Units Not Occupied by Usual Residents

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016-2021*	280	100	10	390
2021-2031	580	200	20	800
2031-2041	560	140	20	720
Total	**1,420**	**440**	**50**	**1,910**

Forecast Household Growth by Policy Area

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016-2021*	9,570	10,050	90	19,710
2021-2031	20,320	19,680	180	40,180
2031-2041	21,370	14,300	160	35,830
Total	**51,260**	**44,030**	**430**	**95,720**

Forecast Households by Policy Area

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016	194,700	16,520	3,900	215,120
2021*	204,550	26,670	4,000	235,220
2031	225,450	46,550	4,200	276,200
2041	247,380	60,990	4,380	312,750

Note: All information for 2016 is externally sourced data by Statistics Canada Census counts. Forecasted households by policy area (delineated built up area, designated greenfield area and rural area) over the planning periods 2021, 2031 and 2041 are needed for Step R4b. Total number of forecasted households from 2021 – 2041 are figures from Step R2b.

Step R4 Determine Population of Policy Areas

Purpose

In this next step, the total households by policy area (established in Step R3) will be translated back into population. The purpose of this step will be to assess the portion of the Schedule 3 population forecast that will be allocated to each of the policy areas. For completeness and transparency, the analysis in this step will indicate housing and population estimates for all policy areas, however, only the population in the *designated greenfield area* will be specifically required for further steps in the land needs assessment. Growth allocations for the *delineated built-up area* and rural area would have already been established by the housing unit allocations in the previous step, which will be sufficient for those areas for the purposes of land needs assessment.

This step will help to determine how much forecasted population will be accommodated in the *designated greenfield area*, which will be required to demonstrate that the upper- or single-tier municipality is planning to achieve the required minimum density target for the *designated greenfield area* by 2041.

Method

Steps R1 to R3 will provide total households, total household population, overall average persons per unit, and total population as well as the number of households by each policy area and in each planning period. Translating policy area households into population at the Growth Plan horizon will involve establishing a forecasted persons per unit factor for the various policy areas and planning periods. Specifically, a municipality will have to determine:

- Persons per unit in existing units (in 2016 and at the Growth Plan horizon) for each of the three policy areas; and
- Persons per unit in new units at the Growth Plan horizon in each of the three policy areas.

The household population for each policy area will be determined by applying a persons per unit factor to the housing unit forecast for each policy area which was established in Step R3. Establishing a forecasted persons per unit factor for each of the three policy areas will usually be a somewhat iterative process that involves both new and existing units. Assumptions can be made for each of these to calculate the household population, but the household population

overall must still add up to the total municipal-wide household population determined in Step R1. This will be a process of making reasonable, evidence-based assumptions that work within an established control total.

A common approach to calculating household population for the purposes of land needs assessment is based on a similar approach that is often used in development charge background studies. That approach is to calculate the household population for all new units based on a fixed "new unit" persons per unit for each policy area. The household population within the existing developed area can then be the residual population (the new unit population subtracted from the municipal-wide control total). The important part of the calculation will be that the assumptions used are well-documented, evidence-based and reasonable (refer to Appendix 2 for guidance on a common approach to differentiating between new and existing units using Census “period of construction data”).

Once the household population has been established for 2041 by policy area, the final part of this step will be to add the non-household population and the Census net undercoverage to provide the total population. Non-household population and total population will be established based on the breakdown of the population shown in Step R1.

Inputs / Data Sources

This will vary depending on the approach that the municipality decides to take to determine reasonable persons per unit factors for each of the policy areas. If using the approach outlined in Appendix 2, this will rely on Statistics Canada Census special run data on units and household size by period of construction (which is typically used for similar calculations as part of development charge background studies). Alternative approaches will need to consider similar types of variables and trends, and provide detailed documentation of the data sources and methods utilized.

Assumptions

In all municipalities, it can generally be assumed that the overall persons per unit will be stable to declining. This is likely to be more pronounced in some municipalities than others. The decline in persons per units is the result of an aging population. See Explanation Box 6 for more details on demographic change and housing turnover on persons per unit.

Generally speaking, new units of a similar type have a higher persons per unit than in the existing base of units. In the *designated greenfield area* this means a somewhat higher persons per unit in newer units overall than in the existing base. In the *delineated built-up area* the new units overall will likely have a higher persons per unit than the existing base or medium and higher density units, but may differ, in either direction from the existing base of lower density units depending on the age of the development and the characteristics of the community. While the implementation of Growth Plan policies may shift some of the occupancy patterns to some degree, the relationships between new and existing units and *designated greenfield area* and *delineated built-up area* could be assumed to continue to reflect similar patterns for the foreseeable future. Further discussion of persons per unit and housing type is provided in Explanation Box 7.

Further, when establishing the persons per unit factor, municipalities should give consideration to known patterns in household size. For example, persons per unit generally tend to be more likely to decline in the existing housing base compared to new units (refer to Appendix 2).

The example of the overall persons per unit calculation and the forecasted household population by policy area is shown in Example Box 7 and Example Box 8. Household population is then translated to total population in Example Box 9.

Explanation Box 6: How does demographic change and turnover in the housing stock affect the person per unit relationships in communities?

As already described in the discussion of Step R2, the formation of households is a social construct largely unrelated to specific housing unit types. Household formation is highly related to age, that is, the formation of a household and its size are about choices made, or events that occur, at certain ages. The total number of households in a population is defined by these factors and events such as moving away from one's parents, forming a couple, remaining single, having children, getting divorced, the death of a spouse or an aging parent moving in with grown children. In so far as people continue to make similar household arrangements at similar ages, the number of households and the overall average household size can be predicted with a reasonably high level of accuracy for a given population.

The households themselves, however, make different housing choices throughout their lives. The effect of these decisions on the occupancy of units in the existing housing stock is that there is turnover of the units through time. This has always occurred in housing markets and will continue to occur in the future, the only difference being that there will be a higher proportion of medium and higher density units and fewer single and semi-detached units through different points in the lifecycle.

There will be significant turnover of single and semi-detached units in the housing stock occurring as the baby boom generation ages. This turnover will be gradual. Municipalities need to assess the pace and impact of this change in their communities and to what extent past trends are expected to continue. Currently, occupancy of ground-related housing peaks in households in the 55-59 age group - 67 per cent of households headed by that age group reside in ground-related housing, and most remain in these homes for a very long time. Some people sell the family home when they retire, but most remain far longer. Eventually a large proportion of the elderly are likely to move to higher density housing. Currently, those who are 85 and older are the only age group among those 35 and above where a majority of households reside in apartments. The leading edge born in 1946. These first members of the baby boom will reach 85 the early 2030s, and the peak years of the baby boom (those born around 1960) will turn 85 in the mid-2040s. At this pace, only some of the process of housing turnover will be complete within the Growth Plan horizon. By that time, the millennial generation will have advanced considerably through the household structure life-cycle as well.

Community change and the turnover of units is incorporated into the age-specific averages applied at an earlier step in the Methodology. The average household size is expected to continue its gradual decline. Individual neighbourhoods may experience larger or faster changes, they may even experience rising persons per unit as the housing stock turns over, but it is unlikely to occur at a speed and scale to reverse the broader pattern over the large scale of the single- and upper-tier municipalities.

Explanation Box 7: How can persons per unit be forecast without knowing the mix of housing types?

The Methodology will involve allocating total households and household populations to each of the policy areas and determining land need prior to finalizing housing unit mix for planning purposes. This will be based on using overall average persons per units for each of the policy areas. This does not mean that the analysis to support these assumptions cannot consider the likely effect of various potential housing mixes on the persons per unit factors. As the overall unit mix generally shifts towards more medium and higher density units — a clear and intended goal of Growth Plan policies — the persons per unit by unit type will not necessarily remain the same as it has in the past. Achieving the overall Growth Plan policy objectives will likely mean higher persons per unit in medium and higher density housing than in the past. Over time, these shifts will become embedded within overall trends in average persons per unit. It is reasonable and appropriate to give consideration to the likely range of housing unit types and the type of households they would likely accommodate as part of the analysis leading to assumptions about average persons per unit factors.

Example Box 7: Step R4a – determine municipal-wide persons per unit

The households will now be connected with the household population. The persons per unit is the ratio of household population to households (both having been determined in previous steps for 2031 and 2041) as well as a household count for 2021*. The household population for 2021* will be based on interpolating the persons per unit between the known 2016 base and the forecasted persons per units for 2031 then multiplying by the households. While shown for completeness in the table, the figures for 2021* and 2031 are not necessarily required for the next steps of the methodology, rather only 2041 figures are now needed.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Figure from another land needs assessment step	From Step R2b, total households and Step 1 household population
	Results needed for a later land needs assessment step	Step R4b

Persons per Unit Forecast

Planning Period	Household Population	Households	Persons per Unit
2016	686,300	215,120	3.19
2021*	741,530	234,830	3.16
2031	850,510	275,020	3.09
2041	946,610	310,850	3.05

Example Box 8: Step R4b – determine household population by delineated built-up area, rural area and designated greenfield area at 2016 and 2041

The purpose of this step will be to determine the household population of the *designated greenfield area* in 2041. The other policy areas are shown for completeness and to assure that choice for assumptions for the *designated greenfield area* does not produce an unreasonable result in the other policy areas. The approach shown in this example is a typical approach used in development charge background studies (refer to Appendix 2). The result of this step is the household population in the *designated greenfield area*.

Legend Colour	Legend Colour	General Source or Purpose
	Externally sourced data	Statisitics Canada Census (adjusted to specific policy geographies)
	Data or assumptions from other MCR work	Based on other municipal analysis (in turn based on Census data) that is a typical part of Development Charge background studies
	Figure from another land needs assessment step	Steps R1 through R4b, households by policy and household populations
	Results needed for a later land needs assessment step	Step R6

Households, 2016, 2041 and 2016 to 2041 Growth

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016	194,700	16,520	3,900	215,120
2041	245,960	60,550	4,330	310,840
2016-41	51,260	44,030	430	95,720

Note: Data from Step R1 through R4b provides the household population at 2016 and 2041 as well as household growth over the 2016-2041 planning period.

Existing 2016 Base in 2016 and 2041

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016 Households	194,700	16,520	3,900	215,120
2016 PPU	3.15	3.76	2.98	3.19
2016 Household Population	612,510	62,150	11,640	686,300
2041 Households	194,700	16,520	3,900	215,120
2041 PPU	2.96	3.43	2.72	2.99
2041 Household Population	575,700	56,700	10,600	643,000

Note: 2016 households for all three policy geographies and the 2016 household population total are figures from Step R1 through R4b. 2016 household population for all three policy geographies are externally sourced by Statistics Canada Census data.

New Units in 2016 and 2041

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016 Households	0	0	0	0
2016 PPU	2.80	3.60	3.60	
2016 Household Population	0	0	0	0
2041 Households	51,270	44,030	430	95,730
2041 PPU	2.80	3.60	3.60	3.17
2041 Household Population	143,550	158,510	1,550	303,610

Note: 2016 and 2041 households for all three policy geographies are figures from Step R1 through R4b. 2016 and 2041 persons per unit are based on other municipal analysis.

Total Units in 2016 and 2041

Planning Period	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
2016 Households	194,700	16,520	3,900	215,120
2016 PPU	3.15	3.76	2.98	3.19
2016 Household Population	612,510	62,150	11,640	686,300
2041 Households	245,970	60,550	4,330	310,850
2041 PPU	2.92	3.55	2.81	3.05
2041 Household Population	719,250	215,210	12,150	946,610

Note: 2016 and 2041 households for all three policy geographies as well as total 2041 persons per unit of 3.05 and total 2041 household population of 946,610 are figures from Step R1 through R4b. 2041 household population for the *designated greenfield area* will be required for Step R6.

Example Box 9: Step R4c – determine total population by *delineated built-up area*, rural area and *designated greenfield area* at 2016 and 2041

This step will convert the household population in the *designated greenfield area* from household population to total population. The latter will be required for the land need calculations. Household population from above is converted to Census population by adding the non-household (institutional) population. In this example the *delineated built-up area* and *designated greenfield area* are assumed to be the same, which is a reasonable assumption if the non-household population is 1.0% or less of the Census population. Where the figure is much greater than 1.0%, there are probably some major facilities or central-city concentrations of non-household population. In these cases, the municipality may choose a lower non-household population rate in the *designated greenfield area* and a higher rate in the *delineated built-up area*, noting that is does need to add up to the control total established in Step R1.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Figure from another land needs assessment step	Steps R1 and R4b, population statistics
	Results needed for a later land needs assessment step	Step R6, community area land need

2016 Total Population	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
Household Population	612,510	62,150	11,640	686,300
Non-Household Population Rate	0.66%	0.66%	0.66%	0.66%
Non-Household Population	4,060	410	80	4,550
Census Population	616,570	62,560	11,720	690,850
Net Undercoverage Rate	3.26%	3.26%	3.26%	3.26%
Total Population	637,320	64,670	12,110	714,100

Note: Household population for all three policy geographies as well as all total figures are from Step R1 and R4b.

2041 Total Population	Delineated Built-Up Area	Designated Greenfield Area	Rural Area	Total
Household Population	719,220	215,220	12,170	946,610
Non-Household Population Rate	0.66%	0.66%	0.66%	0.66%
Non-Household Population	4,770	1,430	80	6,280
Census Population	723,990	216,650	12,250	952,890
Net Undercoverage Rate	3.26%	3.26%	3.26%	3.26%
Total Population	748,390	223,950	12,660	985,000

Note: Household population for all three policy geographies as well as all total figures are from Step R1 and R4b. Total population in the designated greenfield area will be required for Step R6.

Step R5 Determine Policy-based Capacity of Community Areas to Accommodate Planned Growth

Purpose

The first step in assessing community area land need will be to identify the policy-based capacity to accommodate forecasted growth in the existing *designated greenfield area* in the upper- or single-tier municipality. The purpose will be to determine how many persons and jobs can be accommodated in the *designated greenfield area* while meeting Growth Plan policies, including the applicable density targets.

The capacity of the current *designated greenfield area* to accommodate community area growth provides a key input to determining land need. The minimum density target for the *designated greenfield area* is a key quantitative input to the land needs assessment, specifically in determining capacity based on the densities that must be planned to be achieved.

Method

The anticipated development of the *designated greenfield area* to the Growth Plan horizon will be translated into population and employment using persons per unit in the housing and anticipated community area employment in the *designated greenfield area.* The employment part of this step is described and calculated in Section 4 of this Methodology where community area employment is addressed.

The planned population and employment in the existing *designated greenfield area* will be used to measure *designated greenfield area* density against the minimum density target. In the *inner ring*, this will be a minimum of 60 persons and jobs combined per hectare (or an alternative where permitted) across the upper- or single-tier municipality. In the *outer ring*, this will be a minimum of 80 persons and jobs combined per hectare (or an alternative where permitted) across the upper- or single-tier municipality.

The gross developable land area will be determined through municipal land supply information. All *designated greenfield area* lands must be included with the exception of those that meet the criteria specified in policy 2.2.7.3 of the Growth Plan, which specifies how to measure the minimum density target, including allowable net outs.

The result of this step will be the number of persons and jobs that could be accommodated in the existing *designated greenfield area* based on the applicable minimum density target.

Inputs / Data Sources

The key input in this step is based on the Growth Plan policy direction for minimum density targets for the *designated greenfield area*. Data inputs will include information about the size of the *designated greenfield area* (in hectares), the size of the features that are permitted to be excluded from the measurement of the density target for the *designated greenfield area* (in hectares) and the applicable density target for the *designated greenfield area*.

Assumptions

It must be assumed that the density target for the *designated greenfield area* that will be applied for the purposes of land needs assessment (either the minimum required by policy, a higher target or an alternative lower target where it has been permitted) will be achieved within the Growth Plan horizon. To assume that any of the planned density will be achieved post-horizon would not conform with Growth Plan policies.

Step R6 Determine Community Area Land Need in Designated Greenfield Area

Purpose

Once it has been determined how much population and employment growth will be in the *designated greenfield area*, the next step will be to compare existing capacity (based on density target) against needed capacity. The purpose will be to identify whether there will be a sufficient amount of land in the *designated greenfield area* to accommodate forecasted growth to the Growth Plan horizon.

The determination of new community area land need in the *designated greenfield area* will be a key input to determining whether a *settlement area* boundary expansion(s) will be needed or whether *excess lands* will have to be identified, where applicable.

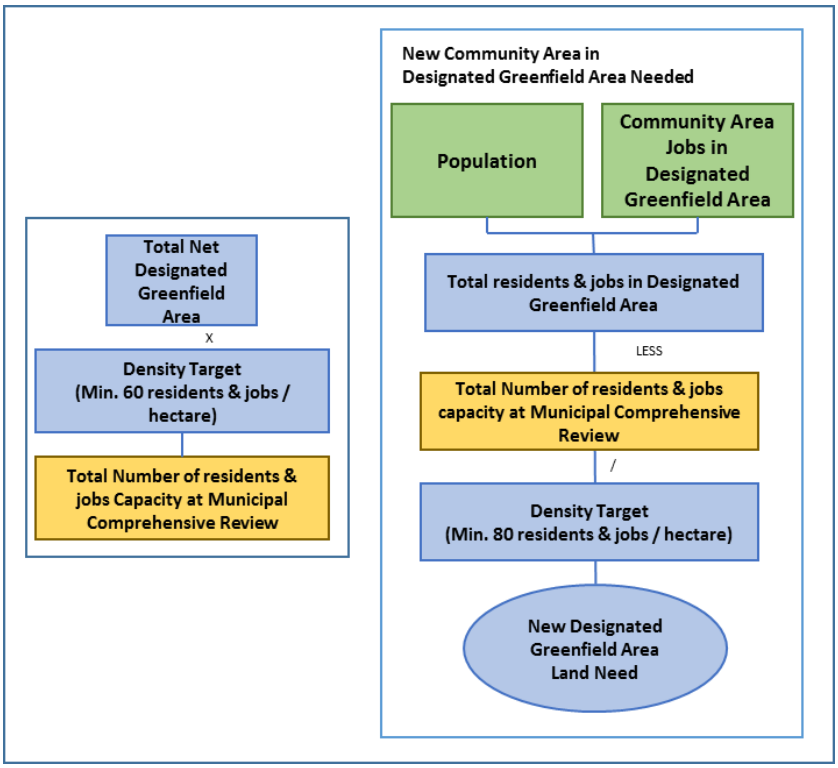
Other Growth Plan policies that support the establishment of an urban structure by providing direction about where the vast majority of growth will be directed and where it will be limited (e.g. policy 2.2.1.2) and areas to avoid (e.g. policy 2.2.8.3) provide the basis to determine the location of any *settlement area* boundary expansions (or *excess lands*) at a later stage in the *municipal comprehensive review* process.

Method

The assessment of community area land need will be undertaken based on the difference between the capacity of the *designated greenfield area* in Step R5 and the population that needs to be accommodated in *designated greenfield area* determined in Step R4 plus the employment in this area determined in Step E3 (Section 4). *Designated greenfield area* land will first be expressed as total population and employment and then translated to actual land area by applying the minimum density target.

The approach is illustrated in the diagram in Figure 5.

Figure 5: Step R6



Depending on municipal circumstances, this simple subtraction of capacity from the long term need (expressed as population and employment), could potentially result in one of two scenarios:

- If the result is a negative figure, then no additional community area *designated greenfield area* will be needed to meet the community area growth outlook. If the municipality is located in the *outer ring*, the *excess land* policies of the Growth Plan would apply.
- If the result is a positive figure, this will represent the number of additional persons and jobs that will need to be accommodated in new *designated greenfield area* within the Growth Plan horizon.
    - In the *inner ring*, the number of additional persons and jobs on new *designated greenfield area* would then be divided by 80 in order to determine the number of hectares of new *designated greenfield area* (excluding any lands that meet the criteria specified in policy 2.2.7.3) needed to meet the Schedule 3 forecast for permanent population and community area jobs to the Plan horizon.
    - In the *outer ring*, the number of additional persons and jobs on new *designated greenfield area* would then be divided by the same

density target that applied to the *existing designated greenfield area* (either 80 residents and jobs per hectare or an alternative lower target where it has been permitted) in order to determine the number of hectares of new designated greenfield area (excluding any lands that meet the criteria specified in policy 2.2.7.3) needed to meet the Schedule 3 forecast for permanent population and community area jobs to the Growth Plan horizon.

The result of this step will be the amount of new community area land needed to accommodate forecasted growth. The most appropriate location for any new *designated greenfield area* land would be determined by the upper- or single-tier municipality at a later stage in the *municipal comprehensive review* process.

Example calculations of land need are shown in Example Box 10 for the *inner ring* and in Example Box 11 for the *outer ring*.

Example Box 10: Step R6 – community area land need (*inner ring*)

The final step in determining community area land need will be based on the *designated greenfield area* density policies. The total population and employment in the *designated greenfield area* would have been determined in prior steps. New information added here will be the population and employment that is planned to be accommodated in the existing *designated greenfield area* by 2041, which will be calculated using the minimum density target. In this example, the density exceeds the minimum density target required by policy (which is 60 people and jobs per hectare). The persons plus jobs not accommodated within the existing *designated greenfield area* would be accommodated by increasing the size of the *designated greenfield area* through *settlement area* expansion. Since all expansion lands in the *inner ring* must be planned to achieve a minimum density target of 80 persons and jobs per ha (no alternative), this example demonstrates need for an additional 545 ha of urban land in this municipality. Once need for a settlement area boundary expansion has been determined through land needs assessment, the location would be determined in a later part of the *municipal comprehensive review* process and subject to other policy requirements (e.g. assessment of feasibility).

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Population and employment at 2041
	Figure from another land needs assessment step	From Steps E4 and R4c, population and employment in *designated greenfield area* community area
	Policy input	*Designated greenfield area* minimum density policies (in this example the 64.1 exceeds the minimum 60 required, while the 80 meets the policy)
	Results needed for a later land needs assessment step	Community Land Need for input to overall MCR

Designated Greenfield Area Population, Employment and Land Need

2041 Designated Greenfield Area Total

Population	223,950
Employment	31,350
Total	**255,300**

Note: Population and employment are figures from Step E4 and R4c.

Existing (2016) Designated Greenfield Area at 2041

Population	184,090
Employment	25,770
Total	**209,860**

Note: Population and employment at 2041 are figures from other *municipal comprehensive review* work.

Existing *designated greenfield area* (in ha)	3,270
Density in residents + jobs per ha	64.2
Residents + Jobs in new *designated greenfield area*	45,440
New *designated greenfield area* density	80
Community area land need (ha)	568

Note: *Designated greenfield area* minimum density policy was used to determine density in residents + jobs per ha and new *designated greenfield area* density. Community area land need will be required for input to overall *municipal comprehensive review*.

Example Box 11: Step R6 – community area land need *(outer ring)*

The calculations will be similar in the *outer ring* as in the *inner ring*, except for two matters. Firstly, in the *outer ring*, the minimum density target that is applicable to the new *designated greenfield area* will be the same as that which is applicable to the existing *designated greenfield area*, which may be an alternative density target, where permitted by the Minister. In this example, the minimum density target shown in 58 persons plus jobs per ha. Secondly, in the *outer ring* there may be *excess lands*, which would trigger the application of additional policy requirements. In the two tables below, the first provides an example resulting in community area land need and the second provides an example of a similar calculation, except where the result determines that there is *excess land*.

The total *designated greenfield area* figures are deliberately different between the two tables below in order to demonstrate the difference between a municipality with a community area land need versus and a municipality with excess land.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Population and employment at 2041
	Figure from another LNA step	From Steps E4 and R7, population and employment in DGA Community Area policy geography
	Policy input	DGA minimum density policies (in this example an approved alternative target of 58.0 is assumed, compared to the policy of 80)
	Results needed for MCR	Community Land Need (or excess land) for input to overall MCR

***Designated greenfield area* population, employment and land need in *outer ring* (land needed)**

2041 Designated Greenfield Area Total

Population	223,950
Employment	31,350
Total	**255,300**

Note: Population and employment are figures from Step E4 and R4c.

Existing (2016) Designated Greenfield Area at 2041

Population	184,090
Employment	25,770
Total	**209,860**

Note: Population and employment at 2041 are figures from other *municipal comprehensive review* work.

Existing *designated greenfield area* developed (in ha)	3,620
Density in residents + jobs per ha	58.0
Residents + Jobs in new *designated greenfield area*	45,440
New *designated greenfield area* density	58.0
Community area land need (ha)	784

Note: *Designated greenfield area* minimum density policy was used to determine density in residents + jobs per ha and new *designated greenfield area* density. Community area land need will be required for input to overall *municipal comprehensive review*.

***Designated greenfield area* population, employment and land need in *outer ring* (*excess land*)**

2041 Designated Greenfield Area Total

Population	223,950
Employment	31,350
Total	**255,300**

Note: Population and employment are figures from Step E4 and R4c.

Existing (2016) Designated Greenfield Area at 2041

Population	184,090
Employment	25,770
Total	**209,860**

Note: Population and employment at 2041 are figures from other *municipal comprehensive review* work.

Existing *designated greenfield area* developed (in ha)	3,620
Density in residents + jobs per ha	58.0
Total *designated greenfield area*	3,980
Less Developed at 2041	3,620
Excess community land area (ha)	(360)

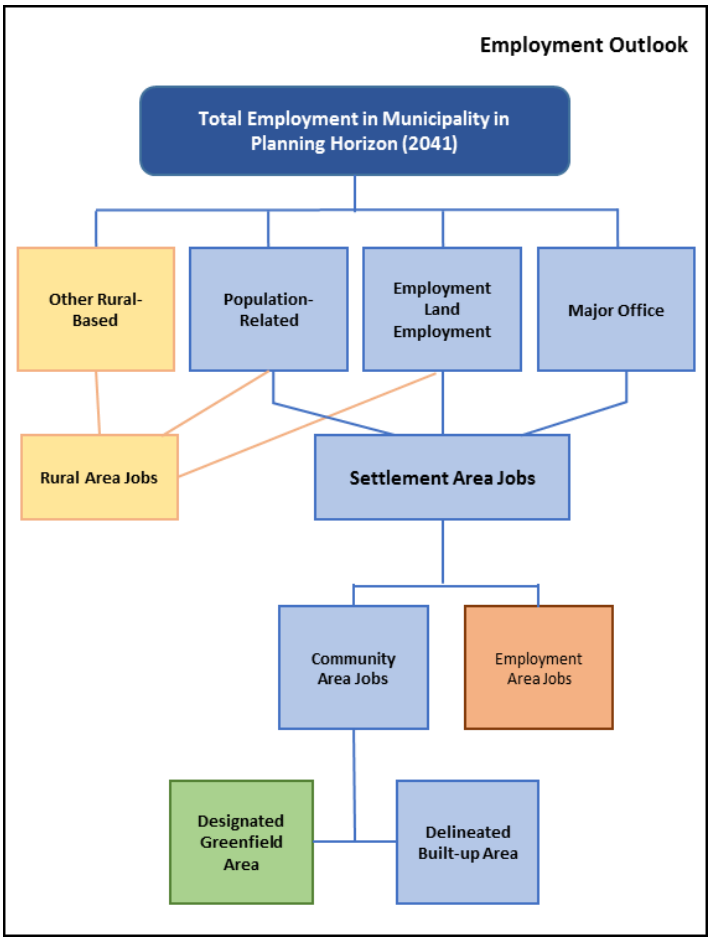
Note: *Designated greenfield area* minimum density policy was used to determine density in residents + jobs per ha. Excess community area land need will be required for input to overall *municipal comprehensive review*.

4 Determine Employment Area Land Need

This Section will focus on employment growth and *employment area* land need. For employment growth, the total Schedule 3 employment forecast will be divided into employment by type categories and the location of job growth and total employment in *employment areas* and in community areas to the Growth Plan horizon will be determined, as illustrated in Figure 6.

Each step in this Section is explained using the same set of sub-headings: Purpose; Method; Inputs/Data Sources and Assumptions. While different inputs/data sources or assumptions may be used in applying the Methodology, any deviations from those outlined below will need to be substantiated. An example box using a hypothetical upper- or single-tier municipality is also provided for each step.

Figure 6: Assessing employment growth by type and location



4.1 Overview

This part of the Proposed Methodology will focus on the employment growth outlook to the Growth Plan horizon based on the employment forecasts in Schedule 3 of the Growth Plan. It will examine employment growth in terms of total employment as well as jobs by type and location in *employment areas* as well as in the community area. The community area jobs will include those that will be located inside *settlement areas* but outside of *employment areas* and this will be an input to the determination of *designated greenfield area* density. Land needed to accommodate employment growth in *employment areas* will be determined in this part of the land needs assessment. Job growth in the *designated greenfield area* will be determined for the purposes of applying the *designated greenfield area* density target for persons and jobs; and job growth in *employment areas* will be determined for the purposes of applying the *employment area* density target and assessing *employment area* need.

The Proposed Methodology will involve six main steps for determining forecasted job growth by policy area (i.e. *delineated built-up area* and *designated greenfield area)* and determining *employment area* need:

- Step E1: Determine Total Employment to the Growth Plan Horizon
- Step E2: Determine Distribution of Employment Growth by Job Type
- Step E3: Determine Job Growth by Type in the Community Area and *Employment Areas*
- Step E4: Determine Job Growth in Community Area in the *Delineated Built-up Area* and *Designated Greenfield Area*
- Step E5: Determine Capacity of *Employment Areas* to Accommodate Job Growth
- Step E6: Determine *Employment Area* Land Need

Step E1 Determine Total Employment to the Growth Plan Horizon

Purpose

The purpose of this step will be to identify the amount of employment growth anticipated to occur in the upper- or single-tier municipality between the base year and the Growth Plan horizon in accordance with Schedule 3. This will provide a starting point for assessing land need for employment uses. Unlike the residential analysis, assessment of *employment area* need will not involve the use of any interim years between 2016 and the Growth Plan horizon.

Method

First, the base year employment for the upper- or single-tier municipality will be established. Total employment will be based on Statistics Canada's Place of Work data from the 2016 Census. In order to conform to the Schedule 3 employment forecasts, total employment will include usual place of work, work at home and no usual place of work by place of residence for each Census Division[3]. Explanation Box *8* addresses those who are counted in the employment forecast and the treatment of those with no usual place of work, as quoted from the background work to Schedule 3. The method of treating those with no usual place of work is further described with a 2011 example for the GTAH in Appendix 3 to this discussion paper.

There are other approaches used to count employment for some purposes as well as to allocate those with no usual place of work. It is important that the approach used here is well understood in order to remain consistent with Schedule 3 in the analysis.

Once the 2016 base year has been established, the forecasted total employment at the Growth Plan horizon will be taken from Schedule 3 and the total

[3] A Census Division is a Statistics Canada reporting geography for the Census. In the *inner ring*, the Census Divisions are the 4 Regions, Toronto, and Hamilton. In the *outer ring*, the Census Divisions are the Regions of Niagara and Waterloo and the geographic counties, that is, the municipal counties plus any separated cities. For the purposes of the Proposed Methodology, Haldimand County (part of the Haldimand-Norfolk Census Division) should be treated as a Census Division, since Norfolk County is outside of the *GGH*. Like the analysis of population, employment in Indigenous communities is excluded from the employment analysis.

forecasted employment growth from 2016 to the Growth Plan horizon will be the difference between the two figures.

Explanation Box 8: Who Is counted in the employment forecast?

The employment forecasts in Schedule 3 of the Growth Plan adopt the Census definition of employment by place of work. The Census divides place of work employment into three categories: usual place of work, work at home, and no usual place of work.

Anyone employed on Census day or who had been employed any time within the previous six months is counted as employed by the Census. For each person reporting employment, a total of one job is counted, whether that person is full-time, part-time or holds multiple jobs. To the extent that people hold more than one job, the Census therefore under-represents the total number of jobs. Given that total employment does not distinguish between full-time and part-time jobs, total employment may be greater than "full-time equivalent" employment, a number sometimes used in employment counts for other purposes.

Usual place of work: includes those who reside anywhere in Canada who report their usual place of work as being within the *GGH*.

Work at home: includes those who work at their place of residence within the *GGH.*

No fixed place of work: includes those who report that they do not work at a fixed location (for example, some truck drivers and construction workers, or people who work at multi-locations through "freelancing" or an employee relationship). To determine the employment base for forecasting purposes, these jobs are allocated to a particular location in the *GGH.*

The allocation method is based on the distribution of employees in similar economic sectors within a common labour market area. This reflects a "snapshot" of where people happened to be working on Census day with the assumption that they would most likely have commuted to and be found in places where other people in similar activities are working.

In the *outer ring*, no fixed place of work employees are allocated to their Census Division of residence, except for those that include separated cities. In the *inner ring* (GTAH) and in the separated city/county sub-parts of a Census Division, the no fixed place of work employees are treated as a pool and allocated to the sub-parts in accordance with the shares in each economic sector among those with a usual place of work.

These categories are distinct from other categorisations of total employment that are used elsewhere, such as industry type or occupation.

In summary, total employment in the employment forecasts in Schedule 3 of the Growth Plan includes: all work place status types, including those with no fixed place of work and those who work at home; and all industry types including retail, industrial and service jobs, regardless of location.

Source: "Hemson Consulting Ltd., Greater Golden Horseshoe Growth Forecasts to 2041: Technical Report, November 2012"

Inputs / Data Sources

This step will rely on Statistics Canada Census employment data by place of work and the employment forecast in Schedule 3 of the Growth Plan. Employment by place of work by industry type (North American Industry Classification System or NAICS) is available by special run from Statistics Canada.

NAICS codes provide a detailed breakdown of employment by sector that can be used to assist in translating the total employment forecast into land-use based categories in the next step.

Assumptions

In this step, it will be assumed that all municipalities will achieve the employment forecast in Schedule 3 to the Growth Plan horizon.

For some municipal purposes, employment forecasts sometimes exclude work-at-home or no usual place of employment. This can be an appropriate approach for some purposes, such as development charge background study forecasts. However, for the purposes of land needs assessment that conforms with the Growth Plan, comparison to Schedule 3 will be required, thus all types of jobs needs to be included in the total employment figure. An example of this first employment step is shown in Example Box 12.

Example Box 12: Step E1 – determine total employment at 2016 and 2041

Total employment would be taken from the 2016 Census and would include employment by place of work in all three commuting-based categories: usual place of work, work at home and no usual place of work (sometimes referred to as no fixed place of work). The use of all of these employees would be required to have a consistent definition of total employment to the forecasts in Schedule 3. There would be a specific method of allocating those with no usual place of work within the *inner ring* and in any areas where there is more than one upper- or single-tier municipality within a Census Division (that is, Peterborough County and City; Simcoe County, Barrie and Orillia; Wellington County and Guelph; Brantford and Brant County; and Haldimand County). The proposed approach for these areas is shown in Appendix B.

The purpose here would be to show the 2016 total employment, 2041 total employment from Schedule 3 and the 25 year growth increment.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Externally sourced data	2016 Census place of work employment by Schedule 3 definition

Planning Period	Total Employment	Planning Period	Total Employment Growth
2016	352,350		
2041	485,000	2016-41	132,650

Note: Total employment and total employment growth data over the 2016 – 2041 planning period is externally sourced from 2016 Census data.

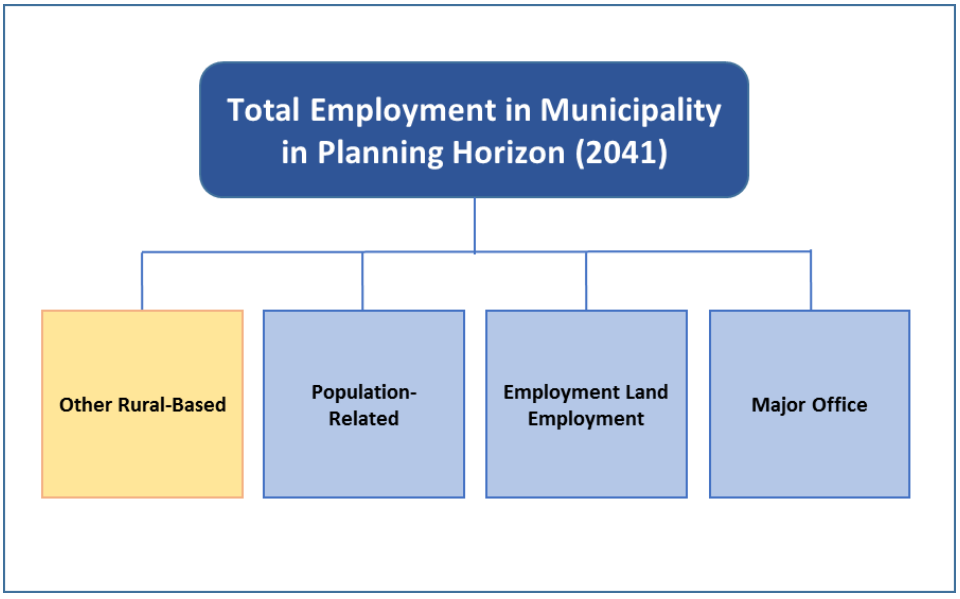
Step E2 Determine Distribution of Employment Growth by Job Type

Purpose

Once the total employment to the Growth Plan horizon has been established, employment and employment growth will need to be divided into categories. The purpose of this categorization will be to facilitate the determination of how many jobs will be located in *employment areas* and how many jobs will be located in the community area. In a later step, the *employment area* density target will be applied to *employment areas* in order to identify how much *employment area* land will be needed to accommodate forecasted job growth. The community area jobs will provide an input to the assessment of community area land need and meeting the density target for residents and jobs in the *designated greenfield area* (addressed in Step R6 in Section 3).

The description and examples in this section use the four land-use based categories that are in regular use in the *GGH*. See Figure 7 for an illustration of the four categories. A simpler approach that may be appropriate for smaller, more rural municipalities in the *outer ring* is also described and shown in an example that combines Step E2 and Step E3.

Figure 7: Employment by land-use based categories



Method

In order to understand, and plan for, the geographic distribution of jobs, the employment forecast will be divided into the following four recommended land-use based categories that are typically used in planning for employment and *employment areas* in the *GGH*:

- **Major office employment**: includes all jobs occurring in free-standing office buildings of 20,000 square feet or more [1,960 m^2][4].
- **Population-related employment**: includes all jobs that primarily serve a resident population. This category includes retail, education, health care, local government and work-at-home employment. The forecast will generally be based on ratios to population. The ratio of population-related employment to population will vary by municipality depending on the character and role of the municipality within its immediate area and within the *GGH*. More small town and rural areas will likely have a lower ratio of people to jobs, since many retail, education and health care functions are provided in a nearby larger centre. Likewise, the nearby larger centre will have a higher ratio since services are being provided to its own population as well as to residents of neighbouring communities. As well, areas with a large tourism base will likely have a high ratio as retail and food and accommodation services are being provided to many more people than just local population.
- **Employment land employment**: includes jobs within *settlement areas* accommodated primarily in industrial-type buildings, the vast majority of which are located within business parks and industrial areas. In older urban centres, some share of this type of employment also occurs in more disbursed locations.
- **Rural-based employment**: includes jobs dispersed throughout rural areas and includes agriculture and primary industries plus uses typically found in urban employment areas, but not located on urban land designated for industrial or commercial use. These uses will include *agriculture-related uses* such as feed or fertilizer facilities, small-scale manufacturing or

[4] For analytical purposes, the term major office is based on the minimum building size typically counted as free-standing office space by real estate analysts and municipalities. This is a different building size than the definition in the Growth Plan (4,000 m^2).

construction businesses run from rural and farm properties and some scattered retail or service users.

See Appendix 4 for additional information on the allocation of employment into land-use based categories, and Appendix 5 for additional information on population-related employment.

Small variations on these categories may be used by some municipalities. Reasonable alternative categories may be acceptable as long as the definitions of the categories are clear and they support the necessary allocation of existing employment and employment growth to community areas, *employment areas* and rural areas (i.e. *rural lands*, *prime agricultural areas*). See Explanation Box 9 for a discussion of historical employment patterns.

Once the base year employment by type is established, the growth increment to the Growth Plan horizon is allocated to each employment category by share.

The establishment of the growth shares by type in the analysis is an important part of the analysis that will be completed as part of the *municipal comprehensive review*. These shares embody many aspects of anticipated economic change in the *GGH* and locally as well municipal expectations for economic development and how local expectations relate to similar expectations in the region as further described Explanation Box 10.

In smaller, more rural communities, a simpler approach that directly allocates to community areas, *employment areas* and rural areas may be appropriate. This approach would still require careful consideration of growth within the employment strategy but would be simpler and more appropriate in some communities.

Explanation Box 9: Historical shifts in employment growth and economic change

The table below shows GTAH employment growth over the 25 year period from 1991 to 2016, when there were significant shifts in area's economic base and employment make up. However, the shift in the type of space or land occupied was less significant. Over that 25 year period, the share of total employment in offices rose by about 3 per cent overall and the employment land employment declined about the same in overall share. Nevertheless, the employment land employment category still grew by about 36 per cent over the 25 year period, despite the general shift away from employment in good producing industries.

Planning Period	Major Office Employment	Population-Related Employment	Employment Land and Rural -Based Employment	Total
1991	23.2%	37.6%	39.3%	100.0%
1991-2016 Growth	31.2%	37.4%	31.4%	100.0%
2016	25.7%	37.5%	36.8%	100.0%

While it is likely that employment will continue to shift toward more service-sector oriented activities between now and the Growth Plan horizon, it is important to recognize that many service activities occur in industrial-type buildings in *employment areas* so the shift in land-use based categories may not be rapid. This is in part a reflection of cheaper land prices and commercial rents in *employment areas*, but it is not always the best use of *employment areas*. Municipalities should consider whether service type employment should continue to be permitted in *employment areas*, or whether it should be directed to other, more accessible areas throughout the municipality.

The analysis on the location of employment land employment (done as part of the required employment strategy) will be critical to the land needs assessment, since it is this category of employment that is the primary driver of land need in the *employment area*.

The major office sector also requires careful consideration of an appropriate share. Outside of the GTAH and Waterloo Region, this is and will continue to be a very small share of employment growth. Municipalities often have quite optimistic expectations of their ability to attract office uses. Office concentrations are attractive from the perspective of density, the ability to be served by transit and to structure community development. However, there is not that much new office space to be accommodated in most communities and

it is important for municipalities to be realistic about the potential to attract major office growth.

Within the GTAH, it is also important for municipalities to consider office growth within a regional context. The GTAH has a very large office market, but there is still only so much to be shared among Toronto, Hamilton and the four regional municipalities. If the total office expectations for these six areas far exceeds a reasonable expectation for the overall GTAH, it would suggest the area is under planning for other types of employment. Coordination among the GTAH municipalities on planning for employment will be very important.

Population-related employment is mostly accommodated in community areas and is provided for through normal planning for commercial and institutional development. In general, this category can be forecast in terms of a ratio to population. Such ratios typically do shift rapidly for most communities and have generally proven to be a sound basis for forecasting. That being said, the ratios do vary widely between municipalities, where there will be far more of these jobs in central places such as Toronto, Hamilton and Barrie that provide services to surrounding areas and far fewer jobs of this type in smaller and more rural communities that seek some services in the central places. This would be the case in Peterborough, Wellington and Haldimand Counties, for example.

Within population-related employment there are many changes occurring, though some compensate for others. In most locations, work at home employment has been quite stable for some time. Looking forward, there is an expectation of growth in health care and other services resulting from an aging population, while retail employment growth is likely to be more restrained with the continued growth of online shopping.

Finally, rural-based employment is likely to remain relatively stable. While vibrant economic activity will continue to occur in rural areas, the economic sectors that are prevalent there are not expected to experience significant employment growth and new development for economic uses that do not need to be in the rural area is generally discouraged by policy.

The forecast shares need to consider these shifts in the economy while being careful not to anticipate an excessive amount of change in a relatively short time period.

Explanation Box 10: Forecasting employment growth and economic change as part of a *municipal comprehensive review*

One of the key assumptions in planning for long-term employment growth and for determining long-term employment land need is the share of forecasted growth to occur within each of the land-use based employment categories. In determining appropriate shares for a municipality, there is much to consider. While the analysis will be done as part of the employment strategy that feeds into to the land needs assessment, it is important to understand the share analysis in order to appreciate its significance to *employment area* land need.

In most cases the share of growth associated with each employment category will differ from the share of the overall base. That means the share of growth in major office employment for the 2016–41 period might be higher than its share of total employment in 2016. The difference is because the share assumptions embody anticipated economic change both in the overall economy and changes that may be more specific to the municipality. In turn, some of the changes in the local economy may also embody economic development goals of the municipality.

While considering economic change, it is also important to have a well-grounded understanding of the likely pace of change. Even during periods of rapid change at the margin (i.e. particular sectors and firms), the overall shift in the employment generally takes more time.

Inputs / Data Sources

A range of data sources may be relied on for this step, including: municipal employment surveys, Statistics Canada employment by NAICS and other municipal sources of information on the current and likely future composition and geographic distribution of the local employment base.

The allocation of total employment to the categories should be undertaken using available data for 2016, considering the amount of office space, employment by NAICS codes, local employment surveys and other information about local land-use.

Larger municipalities will likely have more data and more sophisticated methods, whereas smaller municipalities could potentially use a simpler method. In any case, the approach needs to be clear and reasonable within the local economic context and documented as part of the land needs assessment.

Assumptions

This step will involve making assumptions about where and how employment is currently distributed amongst the four land-use based employment categories and how it is likely to be distributed in the future.

To apply Growth Plan policies, it must be determined where forecasted jobs will occur between the community area, *employment areas* and the rural area. As well, there are specific policies concerning the location of *major offices* occurring in either *employment areas* or community areas. The land-use based employment categories will assist the municipality in allocating existing and forecasted employment to the policy areas, while also giving consideration to how office policies will affect the location of employment growth.

Land-use based employment categories are not entirely precise and may vary from place to place. The land-use based categories also cannot be precise to NAICS codes. For example, financial services employment could be in an office building, a retail bank in population-related employment, a data centre in employment land employment or even an insurance agent in rural-based employment.

In most *outer ring* municipalities, the amount of major office space will be minimal or non-existent and may be combined with population-related or employment land for convenience.

Some municipalities may already use somewhat different definitions and categories in employment analyses. As already noted, the proposed approach would allow some flexibility in how categories may be approached as long as the definitions and any variations from those described above are grounded in accepted municipal practice and clearly documented.

An example of the forecast of employment and employment growth by land-use based categories is shown in Example Box 13.

Example Box 13: Step E2 – determine job growth from 2016 to 2041 by four land-use based employment categories

This example shows the allocation of employment and employment growth to the four recommended land-use-based employment categories. With some small variations, these categories are in general use for forecasting by most municipalities in the GGH. While the calculation for the purpose of this step (identifying a share of growth in each category) would be relatively simple, establishing that share will require careful thought and analysis based on the employment strategy that municipalities are required to develop. It is important that these shares recognize reasonable expectations for growth in the community. Where a municipality may have some aspirational economic development goals, these should not supersede an on-the-ground understanding of the nature of recent and expected growth. The results of the land needs assessment relating to *employment area* land needs would be primarily driven by the growth in employment land employment, as it is the category primarily accommodated on industrial-type lands which make up most *employment areas*.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Share of growth in each category based on analysis in the Employment Strategy
	Figure from another land needs assessment step	From Step E1, total employment
	Results needed for a later land needs assessment step	Step 3 distribution of employment to policy geographies

Employment by Category

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	60,830	117,540	172,240	1,750	352,360
2041	104,090	161,360	217,970	1,580	485,000

Note: Analysis from the Employment Strategy is used to allocate employment to the four land-use based categories in 2016. The totals for both 2016 and 2041 are figures from Step E1.

Share of Growth by Category

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016-41	32.6%	33.0%	34.5%	-0.1%	100.0%

Note: Analysis from the Employment Strategy is used to allocate the share of growth to the four land-use-based employment categories over the 2016-2041 planning period.

Employment Growth by Category

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016-41	43,260	43,820	45,730	(170)	132,640

Note: Employment growth by the four land-use based categories over the planning period 2016-2041 will be required for Step E3.

Step E3 Determine Job Growth by Type in Community Areas and Employment Areas

Purpose

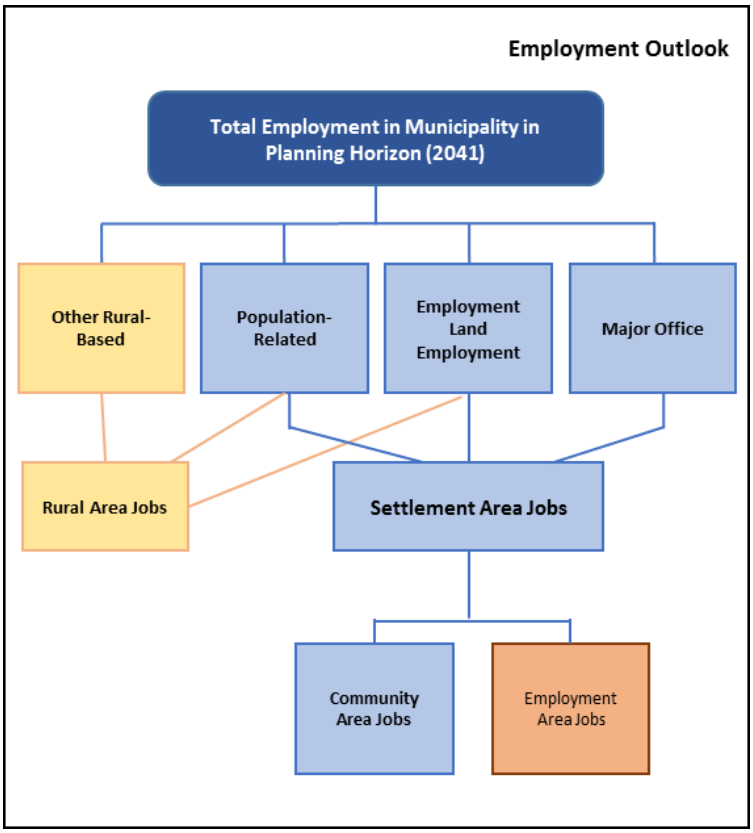
The next step will be to allocate employment growth by land-use employment category to rural areas, community areas and *employment areas*. This will provide a basis for informing work in a subsequent step to determine how many jobs will be in the community area (therefore subject to the *designated greenfield area* density target) and how many jobs will be in *employment areas* (therefore subject to the density target for *employment areas*). See Figure *8* for an illustration of the land-use employment areas are allocated by geography.

This step will also provide a basis for assessing *employment area* need and planning to meet Growth Plan policy direction and density targets for residents and jobs in *urban growth centres*, *major transit station areas* along *priority transit corridors* or subway lines and the *designated greenfield area*.

The policies in subsection 2.2.5 of the Growth Plan require that economic development and competitiveness in the *GGH* be promoted by making more efficient use of existing *employment areas* and vacant and underutilized employment lands and increasing employment densities; and by ensuring the availability of sufficient land, in appropriate locations, for a variety of employment types to accommodate forecasted employment growth to the Growth Plan horizon.

The Growth Plan also directs *major office* and appropriate major institutional development to *urban growth centres*, *major transit station areas* and other *strategic growth areas* with existing or planned *frequent transit* service.

Figure 8: Total employment in municipality at Growth Plan horizon



Method

In this step, the employment by type will be allocated geographically to rural area, community area and *employment areas*.

All employment that will be expected to occur outside of *settlement areas* will be allocated to the rural area. This will include all of the rural-based employment jobs determined in the prior step. A small share of employment land employment and a small share of population-related employment may also be allocated to the rural area to account for existing and future development in existing rural *employment areas* and recreational and tourism activities. This amount of employment growth in the rural should be very limited.

The remaining jobs will be allocated to community areas and *employment areas* within *settlement areas*, such that:

- *Major office* employment will be divided between community areas and *employment areas*. How this will be divided will depend on the community: those with an established downtown office base will likely have a higher share in the community area and those where offices are

primarily located in business parks will likely have a higher share in *employment areas*. In most areas, policies directing *major office* development to *urban growth centres*, *major transit station areas* and other *strategic growth areas* with existing or planned *frequent transit* service will typically direct a higher-than-current share of future *major office* employment to the community area.

- Most, or all, employment land employment will be allocated to e*mployment areas* as well as a small share of population-related employment, in order to account for public, institutional and retail uses that may occur within *employment areas*.
- The balance of population-related employment growth plus, possibly, a very small share of employment land employment will then be allocated to the community area. Employment land employment within community areas will typically be scattered amongst individual industrial sites embedded within older community areas, often adjacent to railway lines or other major *infrastructure*. While these areas exist within the current employment base, they are not typically the locations of significant growth.

The result of the allocation will be the number of jobs to be planned for in each of *employment areas*, community areas and the rural area from the base year to the Growth Plan horizon.

Inputs / Data Sources

This step will rely on Statistics Canada data relating to the amount and location of jobs. Municipalities could also supplement this with their own data, including employment surveys, local land-use and development information.

Assumptions

In this step, assumptions will need to be made regarding the amount and location of job growth by type by policy area, both existing and projected to the Growth Plan horizon. The employment strategy that municipalities are required to develop would entail much of the same analysis that will be needed to support the assumptions made in this step in land needs assessment.

An example of the allocation of employment to the community area and *employment areas* using the four land-use based employment categories is shown in Example Box 14. An alternative simpler approach that may be

appropriate in some smaller more rural areas in the *outer ring* is shown in Example Box 15.

Example Box 14: Step E3 – distribute existing employment and employment growth by type to community areas and *employment areas*

This step would distribute the forecast of employment by type to the policy areas. As noted in the text, most of the jobs should clearly align between the land-use based employment categories and the policy areas, except for the major office employment which may be in the community area or *employment area* and is subject to Growth Plan policies directing location. The results would be the geographic allocation of total employment to the community area, *employment area* and rural area.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Share of growth in each location in base year and forecast from analysis in the Employment Strategy
	Figure from another land needs assessment step	From Step E2, employment by type
	Results needed for a later land needs assessment step	Step E4 distribution of community area employment to *designated greenfield area* and Step E6 employment area land need

Employment by Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	60,830	117,540	172,240	1,750	352,360
2016-2041	43,260	43,810	45,730	(170)	132,640
2041	104,090	161,360	217,970	1,580	485,000

Note: Employment by type for 2016 and 2041 are from Step E2.

Employment in Rural Area - Share of Employment and Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0.0%	3.0%	0.6%	100.0%	1.8%
2016-2041	0.0%	1.0%	0.6%	100.0%	
2041	0.0%	2.5%	0.6%	100.0%	1.4%

Note: Analysis from the employment strategy is used to distribute the share of employment and type to the four land-use-based employment categories over the 2016-2041 planning period for rural area employment.

Employment in Rural Area - Employment by Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	3,560	1,090	1,750	6,400
2016-2041	0	440	270	(170)	540
2041	0	4,000	1,360	1,580	6,940

Note: Analysis from the employment strategy is used to distribute employment by type to the four land-use-based employment categories over 2016 for rural area employment.

Employment in Employment Areas - Share of Employment and Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	78.9%	5.0%	98.0%	0.0%	63.2%
2016-2041	69.2%	5.0%	99.5%	0.0%	
2041	74.9%	5.0%	98.3%	0.0%	61.9%

Note: Analysis from the employment strategy is used to distribute the share of employment and type to the four land-use-based employment categories over the 2016-2041 planning period for employment area employment.

Employment in Employment Areas - Employment by Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	48,000	5,880	168,790	0	222,670
2016-2041	29,940	2,190	45,510	0	77,640
2041	77,930	8,070	214,310	0	300,310

Note: Analysis from the employment strategy is used to distribute employment by type to the four land-use-based employment categories over 2016 for employment area employment. The employment area total at 2041 will be required for Step E6.

Employment in Community Area - Share of Employment and Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	21.1%	92.0%	1.4%	0.0%	35.0%
2016-2041	30.8%	94.0%	-0.1%	0.0%	41.1%
2041	25.1%	92.5%	1.1%	0.0%	36.6%

Note: Analysis from the employment strategy is used to distribute the share of employment and type to the four land-use-based employment categories over the 2016-2041 planning period for community area employment.

Employment in Community Area - Employment by Type

Planning Period	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	12,830	108,100	2,360	0	123,290
2016-2041	13,320	41,180	(50)	0	54,460
2041	26,160	149,290	2,300	0	177,750

Note: Analysis from the Employment Strategy is used to distribute the share of employment and type to the four land-use-based employment categories over the 2016-2041 planning period for community area employment.

Example Box 15: Alternative combined Employment Steps E2 and E3 – determine job growth from 2016 to 2041 by simplified categories for smaller *outer ring* municipalities

This example shows an alternative simplified allocation of the employment base and the employment growth directly from the source data to the policy areas, leaving out the four land-use-based employment categories. This type of approach may be appropriate in a smaller *outer ring* municipality where there is a smaller quantum of growth and most of the employment is either locally-based or at a small number of known larger employers. This approach still requires careful analysis and thought in setting the assumptions, but it does allow this analysis to occur on a more explicitly geographic rather than economic basis.

Like the more detailed approaches already shown, the results of the Proposed Methodology for determining *employment area* land need are primarily driven by the industrial-type employment which make up most of the land-uses in *employment areas*. The results of this geographic allocation are the allocation of total employment to the community area, *employment area* and rural area.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Share of growth in each category based on analysis in the Employment Strategy
	Figure from another land needs assessment step	From Step E1, total employment
	Results needed for a later land needs assessment step	Step E3 distribution of employment to policy geographies

Step E2 and E3: Base Year and Forecast Employment by Geographic Area for Smaller Outer Ring Municipalities

	Community Area	Employment Area	Rural	Community Area	Employment Area	Rural	Total
2016 Employment	43%	39%	18%	5,320	4,830	2,230	12,380
2016-2041 Growth	53%	42%	5%	1,630	1,290	150	3,080
2041 Employment	45%	40%	15%	6,950	6,120	2,380	15,460

Note: The employment strategy is used to determine the geographic allocation of shares of growth for 2016 and 2016-2041 employment. The forecasted figures for 2041 employment will be required for Step E3. Total employment is taken from Step E1.

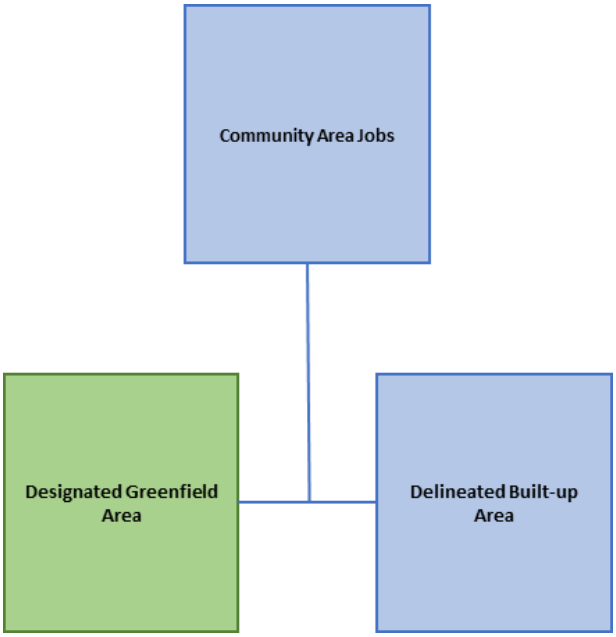
Step E4 Determine Job Growth in Community Areas in the Delineated Built-Up Area and Designated Greenfield Area

Purpose

The next step will be to allocate the community area jobs, as identified in the prior step, to the *delineated built-up area* and *designated greenfield area* (see Figure 9). The purpose will be to determine how many jobs will be in the *designated greenfield area* which, when combined with population, will determine density (in people and jobs) and future community area land needed to accommodate forecasted growth. As outlined in Section 3 of this Proposed Methodology, *designated greenfield area* employment will be an input into the overall *designated greenfield area* land need determined in Step R6.

Employment uses in the *designated greenfield area* contributes to planning to achieve the minimum density target for the *designated greenfield area*, which is measured in combined persons and jobs per hectare (refer to Section 2.2).

Figure 9: Determining job growth



Method

The focus in this step will be on jobs occurring in community areas. *Employment areas* will be addressed later in Step E5 and Step E6.

Community area jobs will be allocated between the *delineated built-up area* and the *designated greenfield area* of the upper- or single-tier municipality, based on the existing employment base, size and community characteristics. Municipal employment strategies and other background work conducted as part of the broader *municipal comprehensive review* process will provide the supporting analysis for how existing and forecasted jobs will be allocated to policy areas.

Inputs / Data Sources

This step will rely on municipal development and land-use information. It could also use inputs from the associated *intensification* analysis and employment analysis completed by the upper- or single-tier municipality as required as part of the *municipal comprehensive review* process.

Assumptions

This step will involve making assumptions around the relative proportions of future employment growth in community areas that will be in the *delineated built-up area* versus the *designated greenfield area*, based on the characteristics of the community and employment base. Generally, in larger municipalities, the amount of community area jobs will be assumed to be proportional to population growth in the *delineated built-up area* and the *designated greenfield area.* In the newly developing *designated greenfield area*, most of these jobs will be assumed to be work at home and in local retail, schools and other local institutions, all of which are typically planned as part of detailed land-use planning for community areas. It could be assumed that a very significant proportion of growth will be in the *delineated built-up area*, both to serve its local population growth and also to account for downtowns, retail centres, hospitals and post-secondary education institutions, most of which are located in *delineated built-up areas*. The result will be that, in most municipalities, most of community area employment growth will be within the *delineated built-up area*. Similarly, in smaller municipalities where new *designated greenfield area* development tends to be located in very close proximity to the *delineated built-up area*, it may be likely that there will be a high proportion of these jobs in the *delineated built-up area*.

The distribution of employment within the community area to the *delineated built-up area* and the *designated greenfield area*, which will be an input to the community area land need analysis (refer to Section 3 of the Proposed Methodology), is shown in Example Box 16.

Example Box 16: Step E4 – determine existing employment and employment growth in the community area by the *delineated built-up area* and *the designated greenfield area*

This step distributes the community area employment between the *delineated built-up area* and the *designated greenfield area*. The purpose here is to determine the number of jobs in the *designated greenfield area* to provide the "jobs" in the "residents and jobs combined per hectare" density calculations. As discussed in the text, in most municipalities, most of the community area employment growth will likely occur within the *delineated built up area* since a significant part of the population growth being served by these jobs will occur there and, typically, most of the *major retail* and institutions will either be located within the *delineated built-up area* or in the already-built portions of the existing *designated greenfield area*.

The allocation to the policy areas is not part of the calculation of the *employment area* land need analysis, but rather is an input back into the community area land need and density analysis in Step R6.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Data or assumptions from other MCR work	Employment and share of growth in community area
	Figure from another land needs assessment step	From Step E3, employment by policy geography
	Results needed for a later land needs assessment step	Step E6 community area designated greenfield area land need

Distribute employment in community areas to *designated greenfield area* and *delineated built-up area*

Planning Period	Employment in Community Area
2016	123,300
2016-2041	54,460
2041	177,750

Note: All employment in community area figures are from Step E3.

Planning Period	Employment in Designated Greenfield Area Community Area
2016	9,050
2016-2041	22,300
2041	31,350

Note: Over the planning period of 2016 and 2016-2041, figures represent growth in community area *designated greenfield area*. 2041 total will be required in Step E6.

Planning Period	Employment in Delineated Built-Up Area Community Area
2016	114,250
2016-2041	32,160
2041	146,400

Note: Over the planning period of 2016 and 2016-2041, figures represent growth in community area *delineated built up area*.

Step E5 Incorporating the Employment Area Density Target and Capacity of Existing Employment Areas

Purpose

The next step will be to incorporate the *employment areas* density target that is determined as a part of the employment strategy. Setting the density target will have involved consideration of the capacity of *employment areas* to accommodate forecasted employment growth to the Growth Plan horizon as well as *employment area* development that might occur on new *employment areas* designations. This will provide the basis for comparison with the forecasted growth for *employment area* jobs, which will be necessary in order to determine whether additional *employment area* will be needed to accommodate forecasted employment growth to the Growth Plan horizon.

The Growth Plan requires upper- and single-tier municipalities to establish a density target for their *employment areas* informed by on-the-ground analysis of existing densities and the policy requirement to increase the planned density of existing *employment areas.* The density target for *employment areas* will determine the capacity of *employment areas* to accommodate jobs for the purposes of land needs assessment.

Method

The *employment area* density target is established by the municipality through the employment strategy required by policy 2.2.5.5 of the Growth Plan. The target is expected to reflect the current and anticipated type and scale of employment, and municipalities should document the key assumptions made in setting the target that is used in this step.

Inputs / Data Sources

The key input in this step is the Growth Plan policy direction that requires upper- and single-tier municipalities to establish minimum density targets for their *employment areas*. Data inputs will include information about the size of the *employment areas* (in hectares), and the density target for *employment areas* established by the applicable upper- and single-tier municipality.

Assumptions

It must be assumed that that the density target for the *employment areas* that will be applied for the purposes of land needs assessment will be achieved within the Growth Plan horizon. To assume that any of the planned density will be achieved post-horizon would not conform with Growth Plan policies.

In setting the density target for *employment areas*, municipalities will have made assumptions regarding likely changes in the existing employment base and densities and the overall average employment density of *employment areas* (determined as part of the employment strategy).

In setting the density target for *employment areas*, municipalities will have completed an analysis of employment densities and land areas by employment category for employment land employment, *major office* and population-related employment, consistent with the forecast determined in previous steps of the Methodology. In order to determine an appropriate density target, municipalities may also need to assess geographical differences to recognize the economic activities, age and character of different parts of the municipality.

Step E6 Determine new Employment Area Land Need

Purpose

The next 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 in order to determine whether there is a sufficient amount of land in *employment areas* to meet the forecast.

The determination of new *employment area* need will provide a key input to meeting Growth Plan policies for employment and for *settlement area* boundary expansion for employment purposes (or the identification of *excess lands*, where applicable).

The policies in subsection 2.2.5 of the Growth Plan require that municipalities make more efficient use of existing *employment areas* and work to increase employment densities. This step will help to determine whether there are sufficient lands in *employment areas* in accordance with Growth Plan subsection 2.2.5.

The result of this step will be the total amount of *employment area* needed to accommodate forecasted employment growth to the Growth Plan horizon. In some instances this may be a shortage, whereas in other instances it may be a surplus.

Method

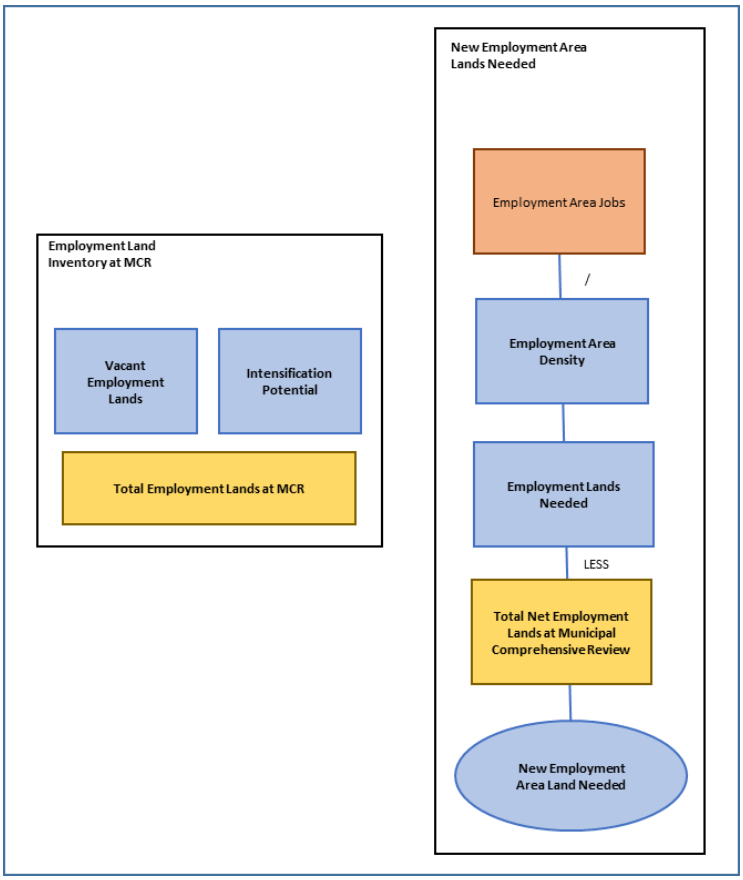
The determination of new *employment area* need will be undertaken by:

- Dividing the total *employment area* jobs at the Growth Plan horizon (existing and forecasted growth) by the *employment area* density target to determine land needed (in hectares) to accommodate the *employment area* forecast to the Growth Plan horizon.
- Subtracting the identified land need (in hectares) from the current *employment area* land supply (in hectares).

If the total amount of land in *employment areas* exceeds the amount that will be needed to accommodate employment growth, there will be no additional *employment area* needed.

If the total amount of land in *employment areas* is less than the amount that will be needed to accommodate employment growth, this will represent the amount of additional *employment area* needed to accommodate the portion of Schedule 3 employment expected to occur in *employment areas*. Figure 10 illustrates the steps and inputs required to determine the amount of new *employment area* needed (or in excess). Refer to Explanation Box 11 for a detailed discussion on the implementation of the results of the land needs assessment as it impacts community areas and *employment areas*.

Figure 10: New *employment area* land need



Inputs / Data Sources

This step will rely on municipal land supply and development information, including municipal employment survey data and other data collected and analysis undertaken to inform the development of an employment strategy.

Example Box 17: Step E6 – *employment area* land need in the *inner ring*

The final step in this part of the Methodology will be to determine *employment area* land need based on the density target of *employment areas* within *settlement areas* derived from the target established in the employment strategy. New information added here would be the average density of *employment areas* and the existing designated land area. The density figure shown would be the overall density of existing developed lands plus all newly developed lands through to the Growth Plan horizon.

Arriving at this one summary statistic will be a major part of the employment strategy that municipalities are required to develop. The analysis of existing and anticipated type and scale of employment as part of the employment strategy should clearly address the basis for the overall minimum density targets for all *employment areas*

It is important to note that breaking down this overall target into a separate target for *settlement areas* would be for the primary purposes of land needs assessment. Municipalities may also establish employment density targets for newly developing areas. The targets for these areas would be incorporated into the overall target shown here, but would not necessarily be the same figure, if that new development were expected to be of a higher or lower density than the overall average.

Having established the total number of jobs at the Growth Plan horizon and the density target for *employment areas* within *settlement areas*, it would be a simple calculation to determine total land need and if the currently designated lands (occupied and vacant) would be sufficient to accommodate growth or if additional lands would be required.

In this example, the need for an additional 320 hectares of *employment area* land is established within a *settlement area*. Where these lands might be located would be subject to the *settlement area* boundary expansion policies and would be determined in a later part of the *municipal comprehensive review* process.

Legend Colour	General Source or Purpose	Source or Purpose in this Step
	Externally sourced data	
	Data or assumptions from other MCR work	Overall employment density average at 2041 across all lands from Employment Strategy
	Figure from another land needs assessment step	From Step E3, employment area employment
	Results needed for a later land needs assessment step	Employment Land Need for input to overall MCR

Employment Area Land Need

Planning Period	Employment Area Total Employment
2016	222,670
2016-2041	77,640
2041	300,310

Note: All *employment area* total employment figures are from Step E3.

Density (jobs/ha)	32.50
ha employment area 2041	9,200
Current designated	8,880
Land Need	320

Note: Density figure is from employment strategy, ha *employment area* 2041 is externally sourced data and land need figure is required for input to the overall *municipal comprehensive review.*

Example Box 18: Step E6 – *employment area* land need in the outer ring

The calculations would be similar in the *outer ring* and the *inner ring*. Like community area land, the analysis may result in *excess lands* being identified. In the *outer ring*, municipalities would be required to identify *excess lands* and put policies in place to restrict their development to the Growth Plan horizon. In the two tables below, the first provides an example where the result shows *employment area* land need and the second provides an example of a similar calculation, except where the result shows a surplus.

The designated area figures are deliberately different between the two tables below in order to demonstrate the difference between a municipality with an *employment area* land need versus and a municipality with *excess land*.

Legend		
Colour	**General Source or Purpose**	**Source or Purpose in this Step**
	Externally sourced data	
	Data or assumptions from other MCR work	Overall employment density average at 2041 across all lands from Employment Strategy
	Figure from another land needs assessment step	From Step E3, employment area employment
	Results needed for a later land needs assessment step	Employment Land Need for input to overall MCR

Employment area land need in *outer ring* (land needed)

Planning Period	**Employment Area Total Employment**
2016	222,670
2016-2041	77,640
2041	300,310

Note: All *employment area* total employment figures are from Step E3.

Density (jobs/ha)	29
ha employment area 2041	10,360
Current designated	9,800
Land Need	560

Note: Density figure is from employment strategy, ha *employment area* 2041 is externally sourced data and land need figure is required for input to the overall *municipal comprehensive review.*

***Employment area* land need in *outer ring* (excess land)**

Planning Period	Employment Area Total Employment
2016	222,670
2016-2041	77,640
2041	300,310

Note: All *employment area* land need figures are from Step E3.

Density (jobs/ha)	29
ha employment area 2041	10,360
Current designated	11,400
Land Need	(1,040)

Note: Density figure is from employment strategy, ha *employment area* 2041 is externally sourced data and land need figure is required for input to the overall *municipal comprehensive review.*

Explanation Box 11: Reconciling *employment area* and community area land needs

The following guidance is provided for determining the ultimate distribution of community area and *employment area* lands in implementing the results of land needs assessment.

Early in the *municipal comprehensive review* process, and in advance of undertaking land needs assessment, an upper- or single-tier municipality would have identified all existing *employment areas* based on current designation in upper- or single-tier and lower-tier official plans. *Employment areas* would also be analyzed through the development of the required employment strategy, prior to undertaking land needs assessment, for the purpose of establishing an *employment area* density target.

Based on this, if the results of the land needs assessment indicate a surplus of land in *employment areas*, further analysis must be undertaken to determine the appropriate approach to planning for currently *employment area* lands. If there is no shortage of community area land, a municipality may consider lands for conversion subject to meeting specific criteria in accordance with policy 2.2.5.9 of the Growth Plan. If there is a shortage of community area land, municipalities will need to assess whether any *employment area* land is appropriate for conversion (also subject to criteria tests in accordance with policy 2.2.5.9) prior to undertaking a *settlement area* boundary expansion. If there are any changes proposed to *employment area* designations as a result, the municipality would be required to revisit the *employment area* density target so that lands that

would no longer be contemplated to be *employment areas* will then be removed from the calculation of *employment area* density. If the *employment area* density target changes as a result, the *employment area* land need component of the land needs assessment would also need to be updated. As a result, the process of assessing *employment area* land need could potentially be iterative and involve numerous points of update and review.

Once the land needs assessment has been completed, municipalities will be required to indicate (through accompanying mapping) a clear delineation between which lands were counted as *designated greenfield area*, *delineated built-up area*, and *employment area* in the final calculations. In the *outer ring*, *excess lands* in *employment areas* (if any) will also have to be identified and development on these lands will have to be restricted to the Growth Plan horizon.

The lands counted as *employment areas* should be reflected as such in the final official plan amendment that would implement the outcome of the *municipal comprehensive review* process and be submitted to the Province for approval. New *employment areas* that are implemented as part of a *settlement area* boundary expansion would have to be justified through the *municipal comprehensive review* process in accordance with the result of the land needs assessment would also have to be mapped. All final mapping will have to be included report documenting the results of the land needs assessment.

5 Documenting Land Needs Assessment Results

This section provides proposed direction on how land needs assessment results will be documented, finalized and implemented, as well as Provincial involvement in land needs assessment.

5.1 Documenting the Results

The Proposed Methodology will establish a standard method and common inputs to be used by municipalities in assessing land needs. A standard approach to reporting the results is also a part of the proposed approach.

In the past, municipalities have taken a range of approaches to reporting the method applied and the results of land needs assessments, with variation in terms of the amount of information made available in an accessible way. The Province is proposing standardized requirements for reporting on land needs assessment. The resulting data should facilitate greater transparency, accountability and evidence-based decision making for all levels of government.

- As part of the final methodology that will be issued by the Minister, it is proposed that a standard template for reporting on the results will be provided. This template will include a series of tables as well as direction for what information will need to be included as explanatory text for each step in the land needs assessment, as illustrated in Appendix 6.
- Municipalities will be expected to prepare a report to document the results, along with providing additional context on the background calculations and associated analysis. This report will include all tables from the standard template along with the minimum requirements for explanatory text and could be prepared as either a stand-alone document or as a dedicated section in a larger comprehensive growth management study.
- Following input from the Province and municipal council endorsement, the results of the land needs assessment will be implemented through further work to determine where any necessary *settlement area* boundary expansions or excess lands will be located, which will ultimately be implemented through an upper- or single-tier municipality's official plan or official plan amendment that is submitted to the Province for approval.

Municipalities should submit a draft report to the Province for review and staff level input prior to finalizing the results and reporting to municipal councils.

5.2 Provincial Staff Review

Prior to undertaking land needs assessment, municipalities should meet with staff from the Ministry of Municipal Affairs to review the key inputs to the Methodology (forecasts, intensification target, *designated greenfield area* density target, and the *employment area* density target) conform with policy requirements.

Following land needs assessment, municipalities should submit draft tables and the report to Provincial staff to review prior to finalizing the results and reporting to municipal council. Following Ministry staff review of the draft report, municipalities should meet with Ministry staff to discuss whether key assumptions are appropriate (e.g. those pertaining to household formation rates, PPUs, allocations of forecasted employment growth, etc.) and whether the results comply with the methodology established by the Minister. Municipalities will be expected to be able to explain how they arrived at the result and be able to demonstrate that the assumptions made were reasonable within the broad context of policy requirements.

5.3 Finalize the Results

Municipalities should follow this recommended process to finalize results of the land needs assessment:

- Submit draft report to the Ministry of Municipal Affairs for staff to review;
- Meet with Ministry of Municipal Affairs staff to address any issues or concerns; and
- Based on the outcomes of the review and meeting, revise results, as appropriate.

Once a municipality has obtained supportive feedback on the results from Ministry staff, they should finalize the documentation and it is recommended they obtain council endorsement of the total amount of land needed prior to pursuing next steps in the *municipal comprehensive review* process (i.e. prior to determining the location of any potential *settlement area* boundary expansions, or, excess lands, where applicable).

To support transparency, it is recommended that council endorsement of final results be made publically accessible on municipal websites and council agendas.

Beyond this point in the *municipal comprehensive review* process, there should be no substantive changes to the total land need. Any changes made should be done in consultation with Provincial staff and would require updating the results being reported.

5.4 Implementation of Results

The result of the land needs assessment will be a total quantum of land needed (or *excess land*) at the upper- or single-tier municipal level. This will provide a critical input to the *municipal comprehensive review* process through which the appropriate locations of any proposed *settlement area* boundary expansions, identifications of *excess* lands, or potential conversions of *employment areas* to non-employment uses, will ultimately be determined.

These decisions would be implemented through a new upper- or single-tier official plan or official plan amendment that would be subject to Provincial approval. Upper- and single-tier municipalities are required by policy to delineate settlement area boundaries and designate all employment areas in their official plans. Lower-tier municipalities are required to bring their official plans into conformity with the applicable upper-tier official plan within one year of the *municipal comprehensive review* being finalized and taking effect.

6 Appendices

Appendix 1 Technical Analysis to Support Land Needs Assessment as a part of a Municipal Comprehensive Review

As a part of a *municipal comprehensive review* process, municipalities complete background analysis of a variety of matters. Some of this analysis must be completed before land needs are assessed, and some of it must be finalized after land needs are assessed. Municipalities should consult with Provincial staff at key steps throughout the *municipal comprehensive review* process, to confirm the outcomes of background analysis. An overview of key pieces of these analyses as they relate to land needs assessment is provided below.

Urban Structure Analysis

The Growth Plan provides direction on how forecasted growth to the Growth Plan horizon must be allocated. It provides direction on *settlement areas* where the vast majority of growth is to be directed as well as in which *settlement areas* growth will be limited. It also identifies areas where growth will be focused within *settlement areas*, and areas that development will generally be directed away from.

Prior to starting a land needs assessment, municipalities must establish a basic urban structure based on the policy direction of the Growth Plan. An urban structure is a hierarchy of *settlement areas* and *areas* within *settlement areas* where growth will be focused. This involves the identification and assessment of:

- *settlement areas* with the greatest capacity to accommodate future growth in denser forms, such as those with *strategic growth areas* including *urban growth centres* and or *major transit station areas*;
- *settlement areas* that have some growth potential, such as other *settlement areas* that also have existing or planned *municipal water and wastewater systems*, existing or planned transit, existing or planned *public service facilities*; and

- *settlement areas* with limited potential to grow due to constraints, such as location, geographical context, servicing limitations, etc., which will include *undelineated built-up areas*.

The requirements in policy 2.2.8.3 for determining location and assessing feasibility of any proposed *settlement area* boundary expansion should be considered early in the *municipal comprehensive review* process as part of the analysis to determine urban structure. Undertaking this analysis early in the process will reduce the risk of issues arising later in the *municipal comprehensive review* process.

Intensification and Designated Greenfield Area Density Targets Analysis

The intensification target for the *delineated built-up area* and the density target for the *designated greenfield area* are key elements of the Growth Plan's intensification first approach to optimizing the use of urban land supply. Consequently, they are key inputs in land needs assessment.

Prior to starting a land needs assessment municipalities must conduct the analysis necessary to substantiate the identification of appropriate targets that meet the requirements of the Growth Plan. The Growth Plan establishes minimum requirements for each of these targets, as well as provisions for lower alternative targets.

Analysis to substantiate appropriate targets must take into account opportunities to accommodate population and employment growth in *strategic growth areas*, including *urban growth centres* and *major transit station areas.*

It is anticipated that in some cases an assessment of the growth anticipated within the *delineated built-up area* may indicate that an *intensification* target that is higher than the minimum target in the Growth Plan would be appropriate. In such cases, municipalities should use this higher target as an input into their land needs assessment. However, in making this assessment, there could potentially be some flexibility regarding the assumed timing for full build-out, where appropriate.

Likewise, it is anticipated that some cases the assessment of growth anticipated within the *designated greenfield area* may indicate that a density target that is higher than the minimum target in the Growth Plan would be appropriate. In such cases, municipalities would use this higher target as an input into their land needs assessment.

For some municipalities, the Growth Plan permits a process for requesting alternative targets that are lower than those established in the Growth Plan. Municipalities that intend to apply lower targets as inputs to their land needs assessment must make a formal request and obtain written permission from the Minister prior to finalizing the work. All requests for alternative intensification and density targets must be endorsed by municipal councils and supported by evidence that meets the criteria set out in Growth Plan policies.

Employment Strategy

The Growth Plan recognizes that the economy of the *GGH* is changing, and that while traditional industries continue to play an important role, globalization and technology are transforming the economy. Consequently, it establishes policy direction to ensure an adequate supply of land within *employment areas* as well as sites for a broad range of other employment uses.

Prior to conducting a land needs assessment, municipalities must conduct the analysis necessary to assess the current and future anticipated structure and composition of employment of the municipality, and to identify through an employment strategy an appropriate density target for their *employment areas*.

The density target for *employment areas* is a key numerical input into land needs assessment. Information about current and future anticipated structure and composition of employment in the municipality will also be required to allocate forecasted jobs into four broad categories and to determine what proportion of the forecasted jobs will be in *employment areas* versus community areas.

Housing Strategy

The Growth Plan recognizes that many communities in the *GGH* are facing issues of housing affordability. It helps to address this challenge by providing direction to plan for a range and mix of housing options, and in particular higher density housing options that can accommodate a range or household sizes in locations that can provide access to transit and other amenities. The Growth Plan's density and intensification targets are designed to support the provision of housing to achieve these objectives, and will require a shift in housing mix that will result in a higher proportion of people living in denser housing forms.

The Growth Plan requires the development of a housing strategy that supports the achievement of the minimum intensification and density targets, as well as identifying land-use planning and financial tools to achieve this objective.

As a part of this work, and prior to starting a land needs assessment municipalities should conduct analysis to understand the anticipated composition of households (i.e. size, age of occupants, income, family vs. non-family households) at the Growth Plan horizon. Municipalities may also wish to begin analysis of the existing housing stock in terms of range and mix of housing options, as well as analyze the needs of future households.

This analysis will inform elements of the Proposed Methodology related to determining the number and size of households (persons per unit).

A specific future housing mix is not determined before the land needs assessment. Instead, it may be considered later in the *municipal comprehensive review* process after the feasibility and location of any *settlement area* boundary expansion has been determined.

Appendix 2 Projecting Persons Per Unit Factors based on Period of Construction Data

A commonly used approach to making reasonable assumptions about projected persons per unit is to:

- Examine period of construction data (available by special run from Statistics Canada) to observe historic trends in the persons per unit factor in newly constructed units;
- On that basis, determine an appropriate persons per unit factor for new units anticipated in the forecast period; and
- On that basis, determine the resulting persons per unit factor for the existing base (standing units at the time of Census) such that total municipal-wide household population remains at the already determined control total.

This approach relies on empirical observation from Census data that newly built units tend to contain more people than the standing stock and that the decline in average household size over a forecast period is most likely to occur within the existing base of built units.

For example, in the Region of Peel, the overall persons per unit in 2011 was 3.20. In units built before 2001, the average was 3.06 and in units built from 2001 to 2011 it was 3.62. This establishes the general relationship between the new units and the older units, which can assist in setting assumptions in the forecast. However, the interest is not just in new and existing units, but on such units in the *delineated built-up area* versus those in the *designated greenfield area*. In Mississauga, where the *delineated built-up area* is significantly larger than the *designated greenfield area*, the difference is narrower: persons per unit in all units is 3.02 while newer units built between 2001 and 2011 are at 3.17 and units built up to 2001 are at 2.99. In Brampton, where a significant amount of growth is occurring in the designated greenfield area, the average household sizes tend to be higher and the gap between the new and existing units tends to be wider: 3.49 persons per unit overall with pre-2001 units at 3.21 and 2001-2011 units at 4.00.

In establishing actual assumptions for this step, some additional more detailed analysis must be conducted using 2016 Census data. The pattern, however, is likely to be very much like the one shown here such that the new units in the

delineated built-up area would be assumed to be slightly higher than the existing base for similar unit types and the new units in the *designated greenfield area* might be more significantly higher than the existing base.

Appendix 3 Allocation of No Usual Place of Work

In Step E1, total employment in the base year is defined as including three types of place of work employment defined in the Census for commuting purposes: usual place of work, work at home and no usual place of work (often called no fixed place of work).

The proposed allocation method for those with no usual place of work is based on the distribution of employees in similar economic sectors within a common labour market area. This reflects a "snapshot" of where people happened to be working on Census day with the assumption that they would most likely have commuted to and be found in places where other people in similar activities are working.

In the *outer ring*, no fixed place of work employees are allocated to their Census Division of residence, except for those that include separated cities. In the *inner ring* (GTAH) and in the separated city/county sub-parts of a Census Division, the no fixed place of work employees are treated as a pool and allocated to the sub-parts in accordance with the shares in each economic sector among those with a usual place of work.

Two examples follow showing the allocation using 2011 Census data (2016 data was not yet available at the time this Methodology was released for public consultation).

The first example shows the GTAH, where the GTAH is treated as a single labour market area for the purposes of allocating those with no usual place of work. The second example is an *outer ring* example for Census Divisions with a separated city.

Example 1: GTAH Total Employment

Usual Place of Work Plus Work at Home Employment, GTAH Census Divisions, 2011							
Usual place of work and work at home summed from place of work Census data for each Census Division							
North American Industrial Classification (NAICS)	Toronto	Peel	York	Durham	Halton	Hamilton	GTAH Total
11 Agriculture, forestry, fishing and hunting	1,285	1,935	2,280	2,325	1,655	2,610	12,090
21 Mining and oil and gas extraction	3,025	510	430	135	315	90	4,505
22 Utilities	9,265	2,455	1,720	9,825	1,205	940	25,410
23 Construction	32,300	16,670	21,235	6,150	7,570	7,440	91,365
31-33 Manufacturing	104,435	86,170	61,730	19,930	30,480	22,320	325,065
41 Wholesale trade	52,520	54,500	40,485	7,825	15,065	7,100	177,495
44-45 Retail trade	130,155	70,995	55,875	29,465	28,715	23,815	339,020
48-49 Transportation and warehousing	40,310	58,040	13,790	5,980	6,695	6,580	131,395
51 Information and cultural industries	69,560	17,775	9,900	3,745	4,805	3,440	109,225
52 Finance and insurance	165,950	30,810	22,990	6,310	10,355	7,225	243,640
53 Real estate and rental and leasing	37,220	12,600	10,505	3,945	4,355	4,005	72,630
54 Professional, scientific and technical services	163,905	45,455	46,220	10,450	18,595	10,370	294,995
55 Management of companies and enterprises	2,175	750	725	175	345	125	4,295
56 Administrative and support, waste management and remediation services	54,850	25,815	15,625	6,960	7,395	6,950	117,595
61 Educational services	103,005	34,195	28,625	16,655	14,980	21,605	219,065
62 Health care and social assistance	149,260	40,315	31,700	22,335	18,545	31,670	293,825
71 Arts, entertainment and recreation	27,165	4,715	8,690	5,065	4,715	3,505	53,855
72 Accommodation and food services	79,605	28,430	23,350	13,065	14,260	12,085	170,795
81 Other services (except public administration)	67,640	20,230	19,365	8,550	9,870	9,790	135,445
91 Public administration	85,205	22,905	12,995	10,680	8,920	11,165	151,870
Total	**1,378,835**	**575,270**	**428,235**	**189,570**	**208,840**	**192,830**	**2,973,580**

Share by NAICS of Usual Place of Work Plus Work at Home Employment, GTAH Census Divisions, 2011							
North American Industrial Classification (NAICS)	Toronto	Peel	York	Durham	Halton	Hamilton	GTAH Total
11 Agriculture, forestry, fishing and hunting	10.6%	16.0%	18.9%	19.2%	13.7%	21.6%	100.0%
21 Mining and oil and gas extraction	67.1%	11.3%	9.5%	3.0%	7.0%	2.0%	100.0%
22 Utilities	36.5%	9.7%	6.8%	38.7%	4.7%	3.7%	100.0%
23 Construction	35.4%	18.2%	23.2%	6.7%	8.3%	8.1%	100.0%
31-33 Manufacturing	32.1%	26.5%	19.0%	6.1%	9.4%	6.9%	100.0%
41 Wholesale trade	29.6%	30.7%	22.8%	4.4%	8.5%	4.0%	100.0%
44-45 Retail trade	38.4%	20.9%	16.5%	8.7%	8.5%	7.0%	100.0%
48-49 Transportation and warehousing	30.7%	44.2%	10.5%	4.6%	5.1%	5.0%	100.0%
51 Information and cultural industries	63.7%	16.3%	9.1%	3.4%	4.4%	3.1%	100.0%
52 Finance and insurance	68.1%	12.6%	9.4%	2.6%	4.3%	3.0%	100.0%
53 Real estate and rental and leasing	51.2%	17.3%	14.5%	5.4%	6.0%	5.5%	100.0%
54 Professional, scientific and technical services	55.6%	15.4%	15.7%	3.5%	6.3%	3.5%	100.0%
55 Management of companies and enterprises	50.6%	17.5%	16.9%	4.1%	8.0%	2.9%	100.0%
56 Administrative and support, waste management and remediation services	46.6%	22.0%	13.3%	5.9%	6.3%	5.9%	100.0%
61 Educational services	47.0%	15.6%	13.1%	7.6%	6.8%	9.9%	100.0%
62 Health care and social assistance	50.8%	13.7%	10.8%	7.6%	6.3%	10.8%	100.0%
71 Arts, entertainment and recreation	50.4%	8.8%	16.1%	9.4%	8.8%	6.5%	100.0%
72 Accommodation and food services	46.6%	16.6%	13.7%	7.6%	8.3%	7.1%	100.0%
81 Other services (except public administration)	49.9%	14.9%	14.3%	6.3%	7.3%	7.2%	100.0%
91 Public administration	56.1%	15.1%	8.6%	7.0%	5.9%	7.4%	100.0%
Total	**46.4%**	**19.3%**	**14.4%**	**6.4%**	**7.0%**	**6.5%**	**100.0%**

No Usual Place of Work Employment Allocated by Share of NAICS of Usual Place of Work Plus Work at Home Employment, GTAH Census Divisions, 2011							
GTAH total: summed from no usual place of work figure by place of residence for each Census Division Each Census divison: GTAH total allocated by percentage in table above							
North American Industrial Classification (NAICS)	Toronto	Peel	York	Durham	Halton	Hamilton	GTAH Total
11 Agriculture, forestry, fishing and hunting	134	202	238	242	172	272	1,260
21 Mining and oil and gas extraction	259	44	37	12	27	8	385
22 Utilities	820	217	152	870	107	83	2,250
23 Construction	33,207	17,138	21,831	6,323	7,783	7,649	93,930
31-33 Manufacturing	4,562	3,764	2,697	871	1,331	975	14,200
41 Wholesale trade	3,986	4,136	3,072	594	1,143	539	13,470
44-45 Retail trade	6,872	3,748	2,950	1,556	1,516	1,257	17,900
48-49 Transportation and warehousing	11,517	16,582	3,940	1,709	1,913	1,880	37,540
51 Information and cultural industries	5,939	1,518	845	320	410	294	9,325
52 Finance and insurance	5,085	944	704	193	317	221	7,465
53 Real estate and rental and leasing	3,690	1,249	1,041	391	432	397	7,200
54 Professional, scientific and technical services	13,885	3,851	3,915	885	1,575	878	24,990
55 Management of companies and enterprises	66	23	22	5	10	4	130
56 Administrative and support, waste management and remediation services	18,261	8,594	5,202	2,317	2,462	2,314	39,150
61 Educational services	9,536	3,166	2,650	1,542	1,387	2,000	20,280
62 Health care and social assistance	10,543	2,848	2,239	1,578	1,310	2,237	20,755
71 Arts, entertainment and recreation	3,841	667	1,229	716	667	496	7,615
72 Accommodation and food services	4,957	1,770	1,454	814	888	753	10,635
81 Other services (except public administration)	6,942	2,076	1,987	877	1,013	1,005	13,900
91 Public administration	6,014	1,617	917	754	630	788	10,720
Total	**150,114**	**74,153**	**57,124**	**22,568**	**25,093**	**24,049**	**353,100**

Total Place of Work Employment, GTAH Census Divisions, 2011							
Sum of usual place of work plus work at home in first table plus the no usual place of employment allocated in above table							
North American Industrial Classification (NAICS)	Toronto	Peel	York	Durham	Halton	Hamilton	GTAH Total
11 Agriculture, forestry, fishing and hunting	1,419	2,137	2,518	2,567	1,827	2,882	13,350
21 Mining and oil and gas extraction	3,284	554	467	147	342	98	4,890
22 Utilities	10,085	2,672	1,872	10,695	1,312	1,023	27,660
23 Construction	65,507	33,808	43,066	12,473	15,353	15,089	185,295
31-33 Manufacturing	108,997	89,934	64,427	20,801	31,811	23,295	339,265
41 Wholesale trade	56,506	58,636	43,557	8,419	16,208	7,639	190,965
44-45 Retail trade	137,027	74,743	58,825	31,021	30,231	25,072	356,920
48-49 Transportation and warehousing	51,827	74,622	17,730	7,689	8,608	8,460	168,935
51 Information and cultural industries	75,499	19,293	10,745	4,065	5,215	3,734	118,550
52 Finance and insurance	171,035	31,754	23,694	6,503	10,672	7,446	251,105
53 Real estate and rental and leasing	40,910	13,849	11,546	4,336	4,787	4,402	79,830
54 Professional, scientific and technical services	177,790	49,306	50,135	11,335	20,170	11,248	319,985
55 Management of companies and enterprises	2,241	773	747	180	355	129	4,425
56 Administrative and support, waste management and remediation services	73,111	34,409	20,827	9,277	9,857	9,264	156,745
61 Educational services	112,541	37,361	31,275	18,197	16,367	23,605	239,345
62 Health care and social assistance	159,803	43,163	33,939	23,913	19,855	33,907	314,580
71 Arts, entertainment and recreation	31,006	5,382	9,919	5,781	5,382	4,001	61,470
72 Accommodation and food services	84,562	30,200	24,804	13,879	15,148	12,838	181,430
81 Other services (except public administration)	74,582	22,306	21,352	9,427	10,883	10,795	149,345
91 Public administration	91,219	24,522	13,912	11,434	9,550	11,953	162,590
Total	**1,528,949**	**649,423**	**485,359**	**212,138**	**233,933**	**216,879**	**3,326,680**

Example 2: Guelph and Wellington County

Usual Place of Work Plus Work at Home Employment, Wellington Census Division, 2011 Usual place of work and work at home summed from place of work Census data for Guelph and Wellington County			
North American Industrial Classification (NAICS)	Guelph	Wellington County	Wellington Census Division
11 Agriculture, forestry, fishing and hunting	465	3,755	4,220
21 Mining and oil and gas extraction	30	160	190
22 Utilities	265	65	330
23 Construction	1,550	1,625	3,175
31-33 Manufacturing	20,580	6,590	27,170
41 Wholesale trade	2,290	1,975	4,265
44-45 Retail trade	6,365	2,975	9,340
48-49 Transportation and warehousing	1,360	1,500	2,860
51 Information and cultural industries	945	345	1,290
52 Finance and insurance	2,625	480	3,105
53 Real estate and rental and leasing	950	295	1,245
54 Professional, scientific and technical services	3,800	1,525	5,325
55 Management of companies and enterprises	40	80	120
56 Administrative and support, waste management and remediation services	1,720	790	2,510
61 Educational services	7,895	1,275	9,170
62 Health care and social assistance	5,790	2,750	8,540
71 Arts, entertainment and recreation	755	770	1,525
72 Accommodation and food services	3,870	1,780	5,650
81 Other services (except public administration)	2,600	1,605	4,205
91 Public administration	2,620	530	3,150
Total	**66,515**	**30,870**	**97,385**

Share by NAICS of Usual Place of Work Plus Work at Home Employment, Wellington County Census Division, 2011			
North American Industrial Classification (NAICS)	Guelph	Wellington County	Wellington Census Division
11 Agriculture, forestry, fishing and hunting	11.0%	89.0%	100.0%
21 Mining and oil and gas extraction	15.8%	84.2%	100.0%
22 Utilities	80.3%	19.7%	100.0%
23 Construction	48.8%	51.2%	100.0%
31-33 Manufacturing	75.7%	24.3%	100.0%
41 Wholesale trade	53.7%	46.3%	100.0%
44-45 Retail trade	68.1%	31.9%	100.0%
48-49 Transportation and warehousing	47.6%	52.4%	100.0%
51 Information and cultural industries	73.3%	26.7%	100.0%
52 Finance and insurance	84.5%	15.5%	100.0%
53 Real estate and rental and leasing	76.3%	23.7%	100.0%
54 Professional, scientific and technical services	71.4%	28.6%	100.0%
55 Management of companies and enterprises	33.3%	66.7%	100.0%
56 Administrative and support, waste management and remediation services	68.5%	31.5%	100.0%
61 Educational services	86.1%	13.9%	100.0%
62 Health care and social assistance	67.8%	32.2%	100.0%
71 Arts, entertainment and recreation	49.5%	50.5%	100.0%
72 Accommodation and food services	68.5%	31.5%	100.0%
81 Other services (except public administration)	61.8%	38.2%	100.0%
91 Public administration	83.2%	16.8%	100.0%
Total	**68.3%**	**31.7%**	**100.0%**

No Usual Place of Work Employment Allocated by Share of NAICS of Usual Place of Work Plus Work at Home Employment, Wellington County Census Division, 2011			
Wellington Census Division total no usual place of work figure allocated by percentages in the table above			
North American Industrial Classification (NAICS)	**Guelph**	**Wellington County**	**Wellington Census Division**
11 Agriculture, forestry, fishing and hunting	21	174	195
21 Mining and oil and gas extraction	3	17	20
22 Utilities	52	13	65
23 Construction	1,545	1,620	3,165
31-33 Manufacturing	447	143	590
41 Wholesale trade	183	157	340
44-45 Retail trade	160	75	235
48-49 Transportation and warehousing	466	514	980
51 Information and cultural industries	77	28	105
52 Finance and insurance	42	8	50
53 Real estate and rental and leasing	80	25	105
54 Professional, scientific and technical services	264	106	370
55 Management of companies and enterprises	3	7	10
56 Administrative and support, waste management and remediation services	867	398	1,265
61 Educational services	456	74	530
62 Health care and social assistance	329	156	485
71 Arts, entertainment and recreation	101	104	205
72 Accommodation and food services	106	49	155
81 Other services (except public administration)	272	168	440
91 Public administration	171	34	205
Total	**5,646**	**3,869**	**9,515**

Total Place of Work Employment, Wellington County Census Division, 2011			
Sum of usual place of work plus work at home in first table plus the no usual place of employment allocated in above table			
North American Industrial Classification (NAICS)	**Guelph**	**Wellington County**	**Wellington Census Division**
11 Agriculture, forestry, fishing and hunting	486	3,929	4,415
21 Mining and oil and gas extraction	33	177	210
22 Utilities	317	78	395
23 Construction	3,095	3,245	6,340
31-33 Manufacturing	21,027	6,733	27,760
41 Wholesale trade	2,473	2,132	4,605
44-45 Retail trade	6,525	3,050	9,575
48-49 Transportation and warehousing	1,826	2,014	3,840
51 Information and cultural industries	1,022	373	1,395
52 Finance and insurance	2,667	488	3,155
53 Real estate and rental and leasing	1,030	320	1,350
54 Professional, scientific and technical services	4,064	1,631	5,695
55 Management of companies and enterprises	43	87	130
56 Administrative and support, waste management and remediation services	2,587	1,188	3,775
61 Educational services	8,351	1,349	9,700
62 Health care and social assistance	6,119	2,906	9,025
71 Arts, entertainment and recreation	856	874	1,730
72 Accommodation and food services	3,976	1,829	5,805
81 Other services (except public administration)	2,872	1,773	4,645
91 Public administration	2,791	564	3,355
Total	**72,161**	**34,739**	**106,900**

Appendix 4 Allocation of Employment into Land-Use Based Categories

In Step E2, total employment in the base year will be divided into four land-use based categories: major office, population related, employment land and rural based. As described in that Section of this Proposed Methodology, these categories cannot be precisely defined against NAICS codes used by either the Census or municipal employment surveys. And, while the bulk of employment land is located in *employment areas* and population related employment in the community area, geographic relationships to either the land-use based categories or NAICS codes are not precise. As a result, the allocation to the land-use based categories will be an iterative process taking multiple data sources into account, including building or land data, municipal employment surveys information and the Census place of work data by NAICS code.

The following is an example of the analysis and rationale used to categorize employment in the Region of Peel in 2011.

Before considering the Census data we can consider some of the other guidance provided by other sources:

- Based on information from brokers and municipal databases, there was about 2.4 million m^2 of occupied office space in Peel in 2011. Based on an average (at the time) 21.5 m^2 of office space per employee, a total major office employment of about 110,000 was estimated.
- From the municipal employment surveys, it was determined that about one-half of total employment was in employment areas in the Region (*major retail* concentrations were excluded).
- The 2011 Census population of Peel Region was 1,296,800. For a large urban area that is not a central city, the population-related employment is typically about 1 job for every 6 residents (in the whole GTAH it is about 1 job for every 5 residents, with the difference being in Toronto where there are universities, medical services, retail and entertainment that serve the entire GTAH).
- The rural based employment was quite small overall. There was some estimate from more recent employment surveys for the rural area of represented the bulk the rural employment.

In this case, based on these conclusions drawn from various sources, the NAICS code based Census information was analysed and allocated to determine a

reasonable allocation to the land-use based categories, which is shown in the following table.

This is likely to be an iterative analysis. The example is shown sequentially for illustrative purposes, however, it will be important to work through and revise the analysis based on changing conditions to make sure the conclusions accurately reflect best available information.

Data sources might include the following:

- Census employment by place of work by industry
- Municipal or commercial broker office space information
- Municipal employment surveys by industry and by geography
- Municipal land-use information such as occupied industrial-type employment lands
- Known employment at individual large public and private employers

Forecast shares would be based on the employment strategy and would take account of historic shares with the single or upper tier as well as the share of these types of employment in the overall GTAH (as applicable). In particular, some coordination is warranted to assure that, for example, the total office employment forecast added up from the six components of the GTAH is not unreasonable as a total office employment for the GTAH. As well, in larger municipalities, ratios of population-related employment to population lie within a relatively narrow range.

Example Base Year Employment by Type Example for Region of Peel, 2011										
Employment by Industry (NAICS)	Office	PRE	ELE	Rural		Office	PRE	ELE	Rural	Total
11 Agriculture, forestry, fishing and hunting	0%	13%	24%	63%	100%	-	285	505	1,347	2,137
21 Mining and oil and gas extraction	18%	18%	46%	18%	100%	97	100	254	102	554
22 Utilities	15%	19%	63%	3%	100%	401	509	1,678	85	2,672
23 Construction	5%	3%	90%	2%	100%	1,690	875	30,555	688	33,808
31-33 Manufacturing	1%	0%	98%	0%	100%	899	392	88,332	312	89,934
41 Wholesale trade	1%	1%	98%	0%	100%	586	575	57,419	55	58,636
44-45 Retail trade	1%	88%	11%	0%	100%	747	65,873	8,021	102	74,743
48-49 Transportation and warehousing	5%	8%	87%	0%	100%	3,731	5,833	64,855	203	74,622
51 Information and cultural industries	13%	32%	55%	0%	100%	2,508	6,249	10,525	11	19,293
52 Finance and insurance	65%	19%	16%	0%	100%	20,640	6,139	4,951	24	31,754
53 Real estate and rental and leasing	50%	31%	18%	0%	100%	6,925	4,359	2,544	21	13,849
54 Professional, scientific and technical services	65%	12%	23%	0%	100%	32,049	6,005	11,188	64	49,306
55 Management of companies and enterprises	50%	13%	37%	0%	100%	386	99	288	-	773
56 Admin. and support, waste mgmt, etc.	50%	11%	39%	0%	100%	17,205	3,735	13,354	117	34,409
61 Educational services	5%	90%	5%	0%	100%	1,868	33,535	1,868	89	37,361
62 Health care and social assistance	10%	85%	5%	0%	100%	4,316	36,623	2,158	65	43,163
71 Arts, entertainment and recreation	5%	66%	26%	3%	100%	269	3,570	1,382	161	5,382
72 Accommodation and food services	5%	70%	25%	0%	100%	1,510	21,140	7,501	49	30,200
81 Other services (except public administration)	30%	39%	31%	0%	100%	6,692	8,619	6,950	45	22,306
91 Public administration	40%	40%	20%	0%	100%	9,809	9,809	4,870	34	24,522
Total	17.30%	33.00%	49.20%	0.60%	100.00%	112,329	214,323	319,197	3,574	649,423

Appendix 5 Understanding Population-Related Employment

Step E2 allocates employment to land-use based categories both in the base year and for the forecast. The previous part of the appendix looked at all four of the land-use based categories. It is noted there and in the main text related to Step E2 that a ratio of residents to population-related employment is a reliable check on the base year allocation to categories and can act as a basis for the forecast of employment by category going forward. The following table provides estimated ratios of residents to population-related jobs for the upper- and single-tier municipalities in the Greater Golden Horseshoe.

These are ratios of residents to jobs, that is, a ratio of 5.0 means 5.0 residents for each population-related job. The lower the ratio the more population-related jobs in the community.

One important conclusion to draw from the information in the table is that these ratios do not change rapidly over time, and, for most areas, do not change much in amount. As many service sector jobs are in this category, there is a general expectation that there will be a gradually increasing number of population-related jobs in the future. Some parts of this sector will be growing, in particular, an aging population would indicate increases in health-care related employment. At the same time, changes in the retail industry through on-line shopping point to a declining proportion of retail jobs.

The overall GTAH as well as many of the areas within the *outer ring* average in the range of 5.1 to 5.5 in 2011. A ratio of less than this level would indicate that a municipality is providing some services (such as retail, health care and education) to a wider area and could be considered as having a more "central city" function. Toronto and, in some measure, Hamilton show this characteristic in the GTAH. Similarly, the separated cities within the *GGH* — Peterborough, Barrie, Orillia, Guelph and Brantford — show this characteristic in their relationship to surrounding counties. If, for example, St. Catharines, Kitchener, Orangeville or Lindsay were where looked at separately, they would all show this characteristic within their surroundings as well.

One other characteristic that affecting the population-related employment rates is the presence of a significant tourism industry. Most tourism-related businesses fall into population-related employment in the form of accommodation and

food, retail, and arts and recreation. Niagara Region, Kawartha Lakes and Peterborough and Simcoe Census Divisions all have more population-related than would otherwise be expected for their resident population because of proportionately large tourism industries.

Within the addition of 2016 Census information, available in early 2018, the time series can be brought more up to date. The analysis of these ratios can be a very useful guide to consider the amount and share of growth that might be expected in this category over the period to the Plan horizon.

GGH Ratios of residents to population-related employment

Ratio of residents to population-related jobs A ratio of 5.0 indicates 5.0 residents for every 1.0 population-related job			
Area	**2001**	**2006**	**2011**
Toronto	4.9	4.7	4.6
Peel	6.3	6.4	6.4
York	5.9	6.0	6.4
Durham	6.6	6.3	6.5
Halton	6.2	6.3	6.8
Hamilton	5.7	5.3	5.3
GTAH	*5.5*	*5.4*	*5.5*
Northumberland	5.4	5.0	5.1
Kawartha Lakes	6.1	5.5	5.6
Peterborough City	3.4	3.1	3.0
Peterborough County	7.0	7.1	7.1
Peterborough CD	*4.4*	*4.1*	*4.0*
Barrie	4.2	4.1	4.1
Orillia	3.6	3.3	3.6
Simcoe County	7.2	6.6	6.5
Simcoe CD	*5.6*	*5.3*	*5.3*
Dufferin	5.8	5.2	5.6
Waterloo	5.9	5.5	5.6
Guelph	4.4	4.4	4.6
Wellington County	6.6	6.3	6.5
Wellington CD	*5.1*	*5.1*	*5.2*
Brant County	7.0	7.0	7.3
Brantford	5.0	4.7	4.6
Brant CD	*5.4*	*5.2*	*5.1*
Haldimand County	6.0	5.6	5.4
Niagara Region	4.9	4.5	4.7
Outer Ring	*5.3*	*5.0*	*5.1*
Greater Golden Horseshoe	*5.5*	*5.3*	*5.4*

Source: Hemson Consulting based on Statistics Canada Cens

Appendix 6 Proposed Template Tables for Reporting

The tables below provide a proposed standard template for upper- and single-tier municipalities to report the quantitative results of their land needs assessment.

It is proposed that upper- and single-tier municipalities would identify the specific data source for each item in the Notes Column of each table (e.g. Growth Plan Schedule 3, Census 2016, Municipality Employment Strategy, Municipality Intensification Analysis, Municipality *Designated Greenfield Area* Analysis etc.).

Land Needs Assessment Summary of Inputs and Results

To be read in conjunction with the Municipal Land Needs Assessment Background Report)

Municipality: ***(Upper- or single-tier name)***

Residential: R1 - R6 Community Area Land Need Step		Planning Horizon 2016	2021	2031	2041	Planning Period MCR - 2021	2021-2031	2031-2041	Notes/Source
R1	**Population Forecast by Planning Period**								
	Total Population (including Census net undercoverage)	0	0	0	0	0	0	0	*Refer to municipal LNA report section/ page, data source and/or other supporting information / basis for input*
	Census Population	0	0	0	0	0	0	0	
	Household Population	0	0	0	0				
	Non-household Population	0	0	0	0				
R2	**Household Forecast by Planning Period**								
R2a	Total Households	0	0	0	0				
R2b	Household Growth by Planning Period					0	0	0	
R2c	Total Housing Unit Growth					0	0	0	
	Growth in Housing Units Not Occupied by Usual Residents					0	0	0	
	Percent					%	%	%	
	Number of Units					0	0	0	
R3	**Housing Unit Growth by Policy Areas**								
R3a	Applicable Intensfication Target (%)					%	%	%	
	Allocation (Units) to Delineated Built-up Area (DBUA)					0	0	0	
	Allocation to Rural Area								
	Percent					%	%	%	
	Number of Units					0	0	0	
	Allocation to Designated Greenfield Area (DGA)								
	Percent					%	%	%	
	Number of Units					0	0	0	
R3b	**Forecast Growth in Housing Units Not Occupied by Usual Residents**								
	DBUA					0	0	0	
	Rural					0	0	0	
	DGA					0	0	0	
	Forecast Growth in Households					0	0	0	
	DBUA					0	0	0	
	Rural					0	0	0	
	DGA					0	0	0	
	Forecast Total Households by Policy Area								
	DBUA								
	Rural								
	DGA								
R4	**Population by Policy Area**								
R4a	Forecast Persons Per Unit (PPU) (All Units)	0			0				Total houshold population ÷ total households
R4b	**PPU by Forecast Period and Policy Area**								
	Existing Household Base	0			0				
	DBUA	0			0				
	Rural	0			0				
	DGA	0			0				
	New Units	0			0				
	DBUA	0			0				
	Rural	0			0				
	DGA	0			0				

Land Needs Assessment Summary of Inputs and Results

To be read in conjunction with the Municipal Land Needs Assessment Background Report)

Municipality: ***(Upper- or single-tier name)***

Residential: R1 - R6 Community Area Land Need		Planning Horizon				Planning Period			Notes/Source
Step		2016	2021	2031	2041	MCR - 2021	2021-2031	2031-2041	
	Household Population by Policy Area								
	Existing Household Base	0			0				
	DBUA	0			0				
	Rural	0			0				
	DGA	0			0				
	New Units	0			0				
	DBUA	0			0				
	Rural	0			0				
	DGA	0			0				
	Total Units	0			0				
	DBUA	0			0				
	Rural	0			0				
	DGA	0			0				
R4c	**DGA Population**								
	Household Population								
	Non-Household Population Rate								
	Non-Household Population								
	Census Population								
	Net Undercoverage Rate								
	DGA Total Population								
R5	**Policy-based Capacity of Community Areas**								
	Gross Developable DGA Land Area in Hectares (ha)	*0*	*0*						
	Applicable DGA Density Target (Residents + Jobs / ha)	0			0				
	Capacity of Existing DGA (Residents + Jobs)	0			0				
R6	**Community Area Land Need**								
	Total Population in DGA	0			0				
	Community Area Jobs in DGA	0			0				From Step E4
	Total DGA Residents + Jobs	0			0				
	DGA Land Area (ha)	0			0				
	Density (Residents + Jobs / ha)	0			0				
	Community Area Land Need in Designated Greenfield Area (ha)	0			*0*				
Result	Additional DGA Land Need at 2041				**0**				

Land Needs Assessment Summary of Inputs and Results

To be read in conjunction with the Municipal Land Needs Assessment Background Report)

Municipality: *(Upper- or single-tier name)*

Employment: E1 - E6 Employment Area Land Need Step		Planning Horizon 2016 2021 2031 2041		Growth 2016 -2041	Notes/Source
E1	**Total Employment Forecast**				
	Total Employment at Base and Forecast Horizon	0	0	0	
E2	**Distribution of Employment Growth by Job Type**				
	Major Office	0	0	0	*Refer to municipal LNA report section/ page, Municipal Employment Strategy, data source and/or other supporting information / basis for input*
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Jobs	0	0	0	
E3	**Job Growth by Type in Community Areas, Rural Area, and Employment Areas**				
	Rural Area				
	Major Office	0	0	0	
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Rural Area Jobs	0	0	0	
	Employment Areas				
	Major Office	0	0	0	
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Employment Area Jobs	0	0	0	
	Community Areas			0	
	Major Office	0	0	0	
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Community Area Jobs	0	0	0	Input to R6
E4	**Community Area Job Growth by Delineated Built-up Areas and Designated Greenfield Areas**				
	Delineated Built-up Areas			0	
	Major Office	0	0	0	
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Delineated Built-up Area Jobs	0	0	0	
	Designated Greenfield Areas			0	
	Major Office	0	0	0	
	Population Related	0	0	0	
	Employment Land Employment	0	0	0	
	Total Designated Greenfield Area Jobs	0	0	0	
E5	**Capacity of Employment Areas to Accommodate Job Growth**				
	Employment Area Density Target (Jobs/ ha)		0		From Municipal Employment Strategy
	Employment Area Gross Developable Lands (Hectares)	0			
	Job Growth Capacity (Number of Jobs)		0		
	Existing Employment	0			
	Total Employment Area Capacity		0		
E6	**New Employment Area Land Need**				
	Total 2041 Employment		0		
	Density Target		0		
	Employment Area Land Need		0		
	Existing Gross Developable Employment Area Lands (ha)	0			
	Land Need less Existing Developable		0		
Result	Additional Employment Area Land Need at 2041		0		

Seeking Feedback

The Ontario government is seeking feedback on this Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe.

Provide your feedback

We want to hear your comments and feedback on the Proposed Methodology. Please visit www.mah.gov.on.ca/Page17677.aspx to submit or upload your feedback and comments using the online e-form by February 28, 2018.

Other ways to provide feedback

You also have the option to submit comments and feedback using one of the other methods listed below.

Environmental Bill of Rights Registry at www.ontario.ca/ebr

Proposed Methodology for Assessing Land Needs in the Greater Golden Horseshoe. Notice #013-2016

Comments may also be mailed to:

Ministry of Municipal Affairs
1 Dundas Street West, 25th Floor
Toronto ON M5G 1Z3

The deadline for providing feedback is February 28, 2018

Notice Regarding Collection of Information

Any collection of personal information will be in accordance with subsection 39(2) of the Freedom of Information and Protection of Privacy Act. It will be collected under the authority of Places to Grow Act for the purpose of obtaining input on the Proposed Methodology for Land Needs Assessment for the Greater Golden Horseshoe.

If you have questions about the collection, use, and disclosure of this information please contact:

Ministry of Municipal Affairs
Senior Information and Privacy Advisor
777 Bay Street, 17th Floor
Toronto, Ontario, M5G 2E5
416-585-7094

Organizations and Businesses

Comments or submissions made on behalf of an organization or business may be shared or disclosed. By submitting comments you are deemed to consent to the sharing of information contained in the comments and your business contact information. Business contact information is the name, title and contact information of anyone submitting comments in a business, professional or official capacity.

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Ministry of Municipal Affairs

ISBN: 978-1-4868-1243-1 (PDF)

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