

Scoped Planning Rationale Report for the Northwest Welland Amendment Area



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Scoped Planning Rationale Report

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1 Introduction and Purpose



1.1 Introduction

The City of Welland submitted an application to Niagara Region on November 12, 2019 to amend the Regional Official Plan to incorporate the area known as Northwest Welland into the Region's Settlement Area Boundary or Urban Area. On December 17, 2019, Council of the City of Welland adopted Official Plan Amendment No. 24 (OPA 24) which expanded the City's Urban Area Boundary to include lands in Northwest Welland and requested the Region to approve OPA 24.

The applications were made under the Growth Plan permission which allows for multiple expansions of up to 40 hectares outside of a Municipal Comprehensive Review and in advance of a new Regional Official Plan. The amendment area, as seen in Figure 1, runs along Quaker Road and is bound by the Town of Pelham and City of Thorold to the north, the rear lot lines of properties along Niagara Street to the east, Niagara College Welland Campus to the south and Line Avenue and Clare Avenue on the west.

In total, the lands comprise approximately 191 hectares of which 31 hectares are within the Natural Heritage System, which results in 160 hectares which could be included in urban designations. However, 58 hectares of the area is currently occupied by existing uses and is considered Built-Up Area on Schedule A of the City's Official Plan and the Province's Built Boundary Mapping. As such, only 102 hectares of the amendment area will contribute to future greenfield development. **Figure 2** illustrates the NW Welland amendment area within the Built-Up Area and available for future greenfield development.

This report represents a scoped Planning Justification Report in support of the City's application. This report addresses conformity with the Growth Plan policies for settlement area expansion including satisfying land needs requirements.

1.2 Background

The City retained a team of consultants lead by SGL Planning and Design Inc., to undertake the Northwest Welland Secondary Plan Study. The Northwest Welland lands comprise approximately 190.3 hectares of primarily rural/agriculturally designated lands.

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Figure 1: Northwest Welland Amendment Area Boundary

The City of Welland has accommodated nearly all of its recent growth within its Built-up and Designated Greenfield Areas with an increasing proportion of growth accommodated within the Built-up Area. However, not all of the City's future growth can be accommodated solely in its Built-up Area, and the City has limited lands available for future Designated Greenfield development over the next twenty years.

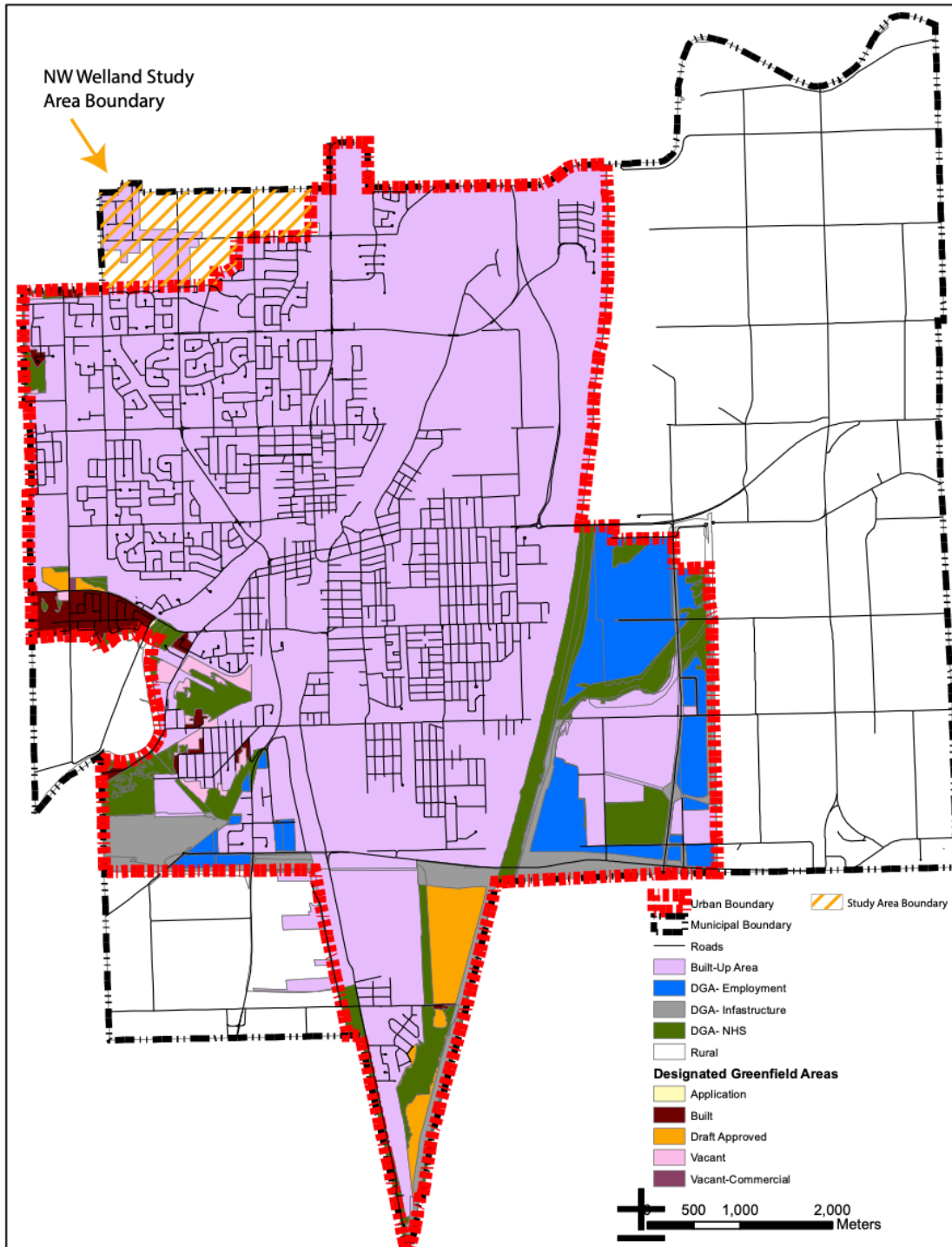
In 2008, the City prepared a Planning and Servicing Study/Municipal Class Environmental Assessment for the Northwest Welland study area. The 2008 study was conducted concurrently with the City's Official Plan review and update. However, the decision to modify the City's urban boundary to remove lands in south-east Welland was deferred by the Region of Niagara.

Phase 1 of Northwest Welland Secondary Plan study included background studies that assessed the feasibility for development within the Northwest Welland study area and provided rationale for the subject lands being an appropriate location to accommodate the City's forecasted Designated Greenfield Area growth to 2041. The following background studies were conducted by the consultant team during this phase of the study:

- Agricultural Impact Assessment;
- Archeological Resource Assessment;
- Cultural Heritage Resource Assessment;
- Municipal Servicing Study;

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- Transportation Study;
- Natural Heritage Study/Environmental Impact Study;
- Floodplain and Natural Hazards Study; and
- Land Needs Study.



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Figure 2: Built-Up Areas and Designated Greenfield Areas

Based on the work conducted in Phase 1 of this study, the City has identified the Northwest Welland lands as an appropriate location for future Designated Greenfield development. Details of the Phase 1 work and background studies can be found in the *Rationale for Urban Growth in Northwest Welland*, dated July 2019 and prepared by SGL Planning & Design Inc. in collaboration with AgPlan Limited, ASI Archaeological and Cultural Heritage Services, Aquafor Beech Limited and Associated Engineering.

As part of Phase 2, SGL Planning and Design prepared a draft Key Directions Report for the Northwest Welland Secondary Plan, which documented the development and evaluation of two land use options, and selection of the preferred land use option as shown in **Figure 3**. In support of the preferred land use option, a Stormwater Management Plan was prepared by Aquafor Beech Limited and a Transportation Assessment and Municipal Servicing Conceptual Design Report were prepared by Associated Engineering. A Fiscal Impact Assessment was also completed by Hemson Consulting.

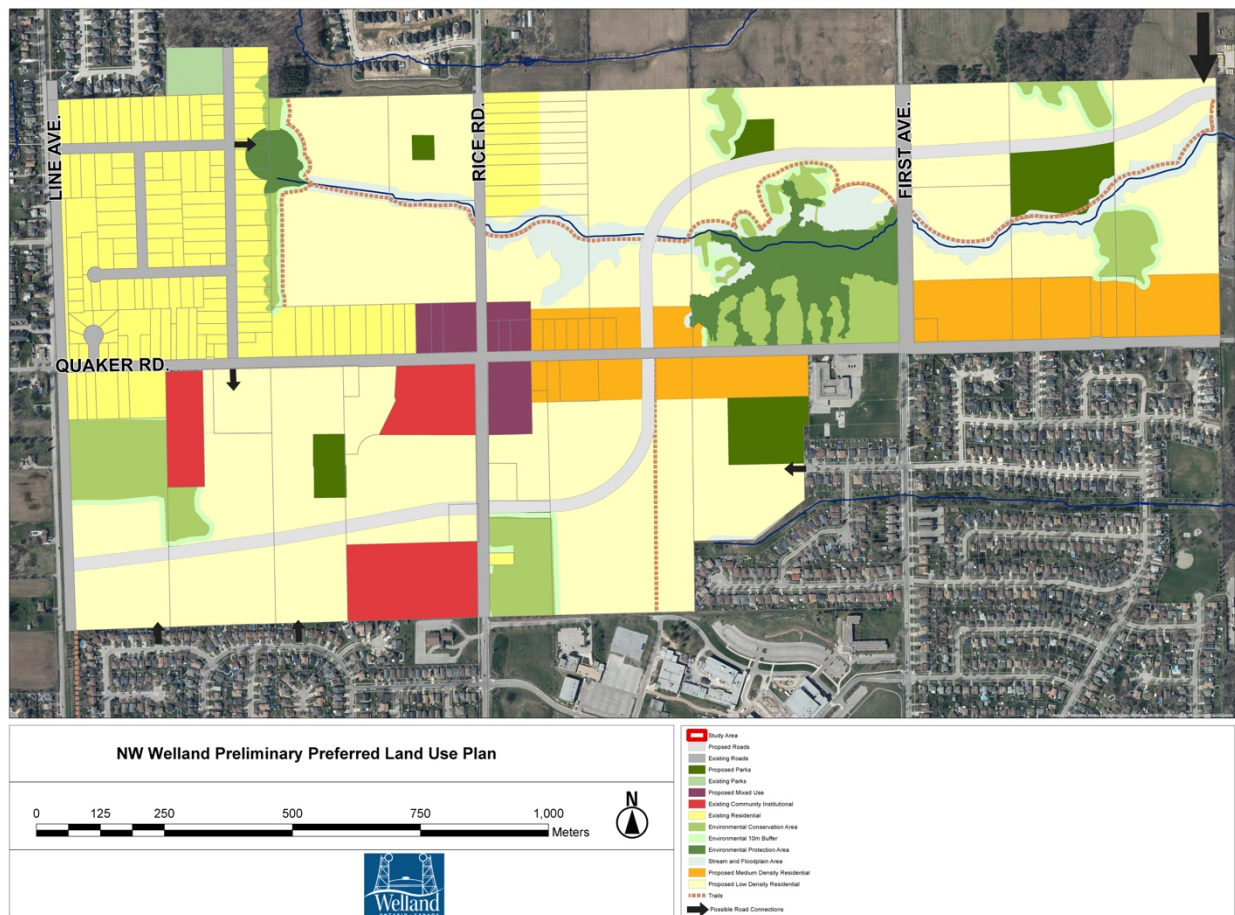


Figure 3: Preliminary Preferred Land Use Plan

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A Pre-consultation Meeting was held with the Region on January 9, 2020 regarding the request for amendment to the Regional Official Plan. The Region requested a number of supporting studies all of which have been prepared as part of the Northwest Welland Secondary Plan study as noted above, as well as the subject Scoped Planning Justification Report.

2 Growth Plan Conformity



2.1 Settlement Adjustment Policy 2.2.8.4

Policy 2.2.8.4 of the Growth Plan states that “municipalities may adjust settlement area boundaries outside of a municipal comprehensive review, provided:

- a) there would be no net increase in land within settlement areas;
- b) the adjustment would support the municipality’s ability to meet the intensification and density targets established pursuant to this Plan;
- c) the location of any lands added to a settlement area will satisfy the applicable requirements of policy 2.2.8.3;
- d) the affected settlement areas are not rural settlements or in the Greenbelt Area; and
- e) the settlement area to which lands would be added is serviced by municipal water and wastewater systems and there is sufficient reserve infrastructure capacity to service the lands.

In December 2019, the Council of the City of Welland, through staff report P&B-2019-61, requested Niagara Region to reconsider its decision to defer Regional Official Plan Amendment 7 (ROPA 7). ROPA 7 was initiated to permit a reduction to Niagara Region’s Urban Area Boundary for the City. The City through its 2010 Municipal Comprehensive Review recommended the removal of approximately 110 hectares of land from the urban area and to redesignate these lands to a rural designation. The lands were located north of Forks Road and east of Highway 58 in the southwest area of the City.

The approval of ROPA 7 and the removal of the 110 hectares from the southwest area of the City, in exchange for addition of 102 hectares of lands in the northwest area of the City would meet the test of a) above of no net increase in land within settlement areas (when considering developable greenfield lands). However, the development of the lands in the northwest area of the City would exceed the City’s 2031 population allocation of 59,100 under the current Regional Official Plan. It should be noted that the City’s forecast to 2031 in their Official Plan is 63,900 but that forecast is deferred and not in effect.

Although the Growth Plan clearly says in Policy 2.2.8.4 that it is “notwithstanding policy 2.2.8.2”, Policy 2.2.8.2 references sufficient opportunities to accommodate forecasted

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growth to the horizon of this Plan which is 2041. Although it does not appear to be required by the Growth Plan, the Region may say the exchange lands need to be accommodated in future 2041 forecasts. We address the land needs in relationship to 2041 forecasts in Section 2.4 below.

In terms of 2.2.8.4 b), approximately 58 hectares of the area is currently identified within the City's Built-Up Area. These lands are fully serviced, and the majority of these lands are built upon with existing homes and public service facilities. There may be opportunities for limited infill on some large residential lots. As well, if the Niagara Catholic District School Board does not require all of their lands for school purposes, greater opportunities for intensification would be available on the property. These intensification opportunities would support the City's intensification target. The remaining 102 hectares of greenfield lands are planned in the preferred land use plan to achieve a minimum density of 50 residents and jobs per hectare.

In terms of 2.2.8.4 c) satisfaction of the requirements of policy 2.2.8.3, we address those requirements in Section 2.3 below.

In terms of 2.2.8.4 d), the lands are not a rural settlement nor are they in the Greenbelt Plan area.

In terms of 2.2.8.4 e), the lands are serviced by municipal water and sanitary services and there is sufficient reserve infrastructure capacity to service the lands as described in the "Northwest Welland Secondary Plan Municipal Servicing Existing Conditions Report".

2.2 40 hectare Expansion Policies 2.2.8.5 and 2.2.8.6

Policy 2.2.8.5 of the Growth Plan states that, "notwithstanding policies 2.2.8.2 and 5.2.4.3, a settlement area boundary expansion may occur in advance of a municipal comprehensive review, provided:

- a) the lands that are added will be planned to achieve at least the minimum density target in policy 2.2.7.2 or 2.2.5.13, as appropriate;
- b) the location of any lands added to a settlement area will satisfy the applicable requirements of policy 2.2.8.3;
- c) the affected settlement area is not a rural settlement or in the Greenbelt Area;
- d) the settlement area is serviced by municipal water and wastewater systems and there is sufficient reserve infrastructure capacity to service the lands; and

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- e) the additional lands and associated forecasted growth will be fully accounted for in the land needs assessment associated with the next municipal comprehensive review”.

Policy 2.2.8.6 of the Growth Plan states that, “for a settlement area boundary expansion undertaken in accordance with policy 2.2.8.5, the amount of land to be added to the settlement area will be no larger than 40 hectares”.

The requirements of policies 2.2.8.5 a), c) and d) have been previously discussed under Section 2.1 of this report. The requirements of policy 2.2.8.5 b) regarding policy 2.2.8.3 is addressed in Section 2.3, and the requirement of policy 2.2.8.5 e) regarding being accounted for in the land needs assessment is addressed in Section 2.4 of this report. With respect to policy 2.2.8.6, the Minister of Municipal Affairs and Housing has indicated that municipalities may undertake multiple expansions of up to 40 hectares provided the requirements of policy 2.2.8.5 are met.

2.3 Policy Tests for Settlement Expansion Policy 2.2.8.3

Policy 2.2.8.3 states that, “the feasibility of the proposed expansion will be determined and the most appropriate location for the proposed expansion will be identified based on the comprehensive application of all of the policies in this Plan, including the following:

- a) there is sufficient capacity in existing or planned infrastructure and public service facilities;

As noted above, the area is serviced with municipal water and sanitary services with sufficient reserve capacity. There is one catholic elementary school and one French public elementary school within the subject lands and a public elementary school immediately adjacent to the subject area. As well, Niagara College lies to the south.

- b) the infrastructure and public service facilities needed would be financially viable over the full life cycle of these assets;

The fiscal impact analysis prepared by HEMSON Consulting assessed the financial viability of the additional required infrastructure and found that the preferred land use plan will achieve long-term fiscal sustainability.

- c) the proposed expansion would be informed by applicable water and wastewater master plans or equivalent and stormwater master plans or equivalent, as appropriate;

In support of the secondary plan study, a Stormwater Management Plan, a Transportation Assessment and a Municipal Servicing Conceptual Design Report were prepared.

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- d) the proposed expansion, including the associated water, wastewater and stormwater servicing, would be planned and demonstrated to avoid, or if avoidance is not possible, minimize and mitigate any potential negative impacts on watershed conditions and the water resource system, including the quality and quantity of water;

The Stormwater Management Plan and the Municipal Servicing Conceptual Design Report address potential negative impacts on watershed conditions and water resource system.

- e) key hydrologic areas and the Natural Heritage System for the Growth Plan should be avoided where possible;

In support of the secondary plan study, a Floodplain and Natural Hazards Study was completed and defined the limits of the Natural Heritage System and the floodplain. These areas are proposed in the preferred land use plan to be designated for protection.

- f) prime agricultural areas should be avoided where possible. To support the Agricultural System, alternative locations across the upper- or single-tier municipality will be evaluated, prioritized and determined based on avoiding, minimizing and mitigating the impact on the Agricultural System and in accordance with the following:
 - i. expansion into specialty crop areas is prohibited;
 - ii. reasonable alternatives that avoid prime agricultural areas are evaluated; and
 - iii. where prime agricultural areas cannot be avoided, lower priority agricultural lands are used;

In support of the secondary plan study, an Agricultural Impact Assessment was conducted. The Assessment confirmed that the amendment area does not meet the requirements for Specialty Crop Areas as defined in the Provincial Policy Statement. The amendment area does not have a high average potential for the production of specialty crops such as fruits and vegetables. As such, the Northwest Welland study area is relatively poorer agriculturally and is isolated from other agricultural uses as it is predominately adjacent to urban land uses. Therefore, development within the study area is a logical extension of existing or planned urban development within the City of Welland, the Town of Pelham and the City of Thorold.

- g) the settlement area to be expanded is in compliance with the minimum distance separation formulae;

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The agricultural assessment concluded that no livestock infrastructure exists in or adjacent to the amendment area and the area is therefore in compliance with the minimum distance separation formulae.

- h) any adverse impacts on the agri-food network, including agricultural operations, from expanding settlement areas would be avoided, or if avoidance is not possible, minimized and mitigated as determined through an agricultural impact assessment;

The agricultural assessment concluded that there will be no adverse impacts on agricultural operations in the study area and that the most logical long-term use of the land is for an extension of urban development.

- i) the policies of Sections 2 (Wise Use and Management of Resources) and 3 (Protecting Public Health and Safety) of the PPS are applied;

In support of the secondary plan study, a Floodplain and Natural Hazards Study was completed and defined the limits of the floodplain within the amendment area.

- j) the proposed expansion would meet any applicable requirements of the Greenbelt, Oak Ridges Moraine Conservation, Niagara Escarpment, and Lake Simcoe Protection Plans and any applicable source protection plan; and

The subject lands are not within any of these plan areas.

- k) within the Protected Countryside in the Greenbelt Area“

The subject lands are not within the Greenbelt Plan area.

2.4 2041 Forecasts and Preliminary Land Needs Assessment

Policy 2.2.8.5 e) requires that, “the additional lands and associated forecasted growth will be fully accounted for in the land needs assessment associated with the next municipal comprehensive review”. We have undertaken a preliminary land needs assessment based on the Region’s current 2041 population forecast for Welland of 65,650¹, an employment forecast of 28,760, and a housing forecast by age of household retainer from the Region. The City has also prepared an alternative 2041 population forecast of 72,540. This forecast was confirmed by Watson & Associates Economists Ltd. as part of a peer review completed on behalf of the City of Welland and the Region of Niagara.

¹ From the Niagara Regional Municipal Comprehensive Review Draft Updated Forecasts and Local Growth Allocations, Hemson, July 27, 2018.

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The City's higher population forecast is reflected in growth statistics in the City since 2016. The Region's land needs assessment forecast a growth of 1,000 units from 2016 to 2021, whereas the City has achieved 1,072 units from 2016 to 2019 alone.

Existing Designated Greenfield Density

As input to the land needs, we identified the total land area within the existing Designated Greenfield Area along with the existing, approved, proposed and potential units on vacant lands as well as the existing and potential jobs within the Designated Greenfield Area outside of Employment Areas as shown in **Table 1**. These areas are also illustrated on **Figure 2**.

Table 1: Existing Designated Greenfield Area, units, persons, jobs and density

	Area (ha.)	Total Units	Total Persons	Jobs (Work-at-Home)	Jobs (Other)	Density (P+j/ha)
DGA TOTAL AREA	1,039.46					
DGA Take-out Areas	849.14					
Employment Areas	275.82					
Cemetery	0.01					
Right-of-ways of Major Infrastructure	228.67					
Natural Heritage System	344.64					
DGA Development Areas	190.32					
Built	72.52	568	1,515	30	162	23.5
Registered	0.00	0	0	0	0	0.0
Draft Approved	84.26	1,253-1,677	3,522	69	0	42.6
Application	0.56	26	61	1	0	110.8
Vacant Residential	32.00	460	1,265	25	0	40.3
Vacant Commercial	0.98	0	0	0	98	100.0
TOTAL	190.32	2,307-2,731	6,362	125	260	35.5

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There are currently 190 hectares of development land within the City's total existing Designated Greenfield Area with 568 existing units and a potential for 2,307 to 2,731 total units. Using the average number of units in the draft approved plans, approximately 6,362 persons and 385 jobs could be accommodated on these lands for a density of 35.5 persons and jobs per hectare.

Land Needs Assessment at 50 persons & Jobs per hectare

Based on the Region's population and housing forecast, and having to achieve an overall average of 50 persons and jobs per hectare across the entire DGA in Welland, the land needs assessment has found a need for an additional 42 hectares of designated greenfield area lands within Welland by 2041 as shown in **Appendix A**. However, because the existing DGA is only achieving 35 persons and jobs per hectare and because the overall average across the DGA must equal 50 persons and jobs per hectare, the additional 42 hectares must make up for the deficit in the existing DGA and therefore would need to achieve 116 persons and jobs per hectare. This is an unreasonable density for a Greenfield area in the City of Welland and would mean the 42 hectares would need to be comprised of a mix of townhouses, stacked townhouses and apartment buildings. These housing types would also compete with similar housing types in the City's intensification areas and impact the ability of the City to achieve its intensification target.

In addition, permitting development on only 42 out of the 96 greenfield hectares in the Northwest Welland amendment area will amplify the current fragmented development pattern with an even smaller rural area surrounded by urban uses. The resulting land use pattern will not be an efficient settlement expansion, will not create an efficient use of land or infrastructure, will not be a cost effective development pattern, will not be transit supportive and will not optimize active transportation.

We see two alternatives to address the land needs associated with the next Municipal Comprehensive Review as per Growth Plan Policy 2.2.8.5 e).

Land Needs Assessment Accounting for 35 persons & Jobs per hectare on the Existing DGA

The first alternative would be to recognize, in the land needs assessment, the lower existing density in the existing DGA of 35 persons and jobs per hectare. If this lower density was recognized, the Land Needs Assessment would identify a need for an additional 97 hectares, as shown in **Appendix B**, which justifies including nearly the entire Northwest Welland amendment area.

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This approach would require the Region to request an alternative DGA density target from the Province to apply to the existing DGA in Welland. Or alternatively, Niagara Region could recognize the lower DGA density in Welland and increase the DGA density elsewhere in the Region as the DGA density is to be achieved as an average over the entire DGA in the Region.

Land Needs Assessment with an Increased Population Allocation

The other alternative is to allocate additional population to Welland. The Province is currently updating Schedule 3 to the Growth Plan with population and employment forecasts beyond 2041. This updated forecast is expected to be released prior to the summer. If Welland's population were increased by 5,450 to 71,100 for the time period set out in the revised Schedule 3, it would justify the entire 102 greenfield hectares as shown in **Appendix C** at an overall average density of 50 persons and jobs per hectare. However, to make up for the lower density in the existing DGA, the density within Northwest Welland would need to be 78 persons and jobs per hectare, which is still significantly higher than most greenfield and built-up areas in Welland.

2.5 Phasing

In a letter from the Region dated November 21, 2019, the Region requested a Phasing Plan to demonstrate how the expansion will be integrated and built-out with the remaining lands. This requirement was not listed in the pre-consultation meeting check list.

Phasing and staging of development is typically necessary to address matters such as infrastructure and public service facility provision. In Northwest Welland, the area is currently serviced with water and sanitary infrastructure and has three elementary schools in or immediately adjacent to the amendment area. As such, there is no need to phase the area based on infrastructure or public service facility timing. As well, due to the existing Built-Up Area in the amendment area and the adjacent Built-Up Area and settlement boundary on the south and east sides of the Amendment Area, development in any of the concession blocks in the Amendment Area will be adjacent to existing Built-Up Areas.

Growth Plan policy 2.2.8.5 e) requires that the additional lands will be fully accounted for in the land needs assessment of the next Municipal Comprehensive Review. As such there is no requirement for phasing for population allocation as even if additional

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population is required through an update to Schedule 3, it must be addressed through the next Municipal Comprehensive Review.

The only staging consideration that is needed is to ensure that landowners in each sub-catchment area, shown on Figure 4.2 of the Stormwater Management Plan, coordinate the provision of a stormwater management facility. The requirement for such coordination can be addressed through policy in the Secondary Plan and a separate Phasing Plan in our opinion is not necessary.

3 Draft Region Official Plan Amendment (ROPA)



An amendment is required to the Niagara Region Official Plan to bring the Northwest Welland amendment area into the settlement area or urban area boundary. In our opinion, no text changes are necessary to incorporate the amendment area into the urban area as development of the lands will follow the requirements of the Built-Up Area, Designated Greenfield Area, Environmental Protection Area and Environmental Conservation Area policies of the Niagara Region Official Plan.

However, the following schedule changes are required:

- Schedule A amended to extend the Urban Area Boundary to include the amendment area and to redesignate the Good General Agriculture Area to Built-Up Area and Designated Greenfield Area;
- Schedule B amended to redesignate the amendment area from Good General Agriculture Area to Urban Area;
- Schedule C amended to illustrate the lands as Urban Area and to revise the Environmental Protection Area and Environmental Conservation Area to reflect the boundaries in the Preliminary Preferred Land Use Plan;
- Schedule E amended to identify the amendment area as Urban Area;
- Schedule G1 amended to identify the amendment area as Gateway Economic Centre;
- Schedule G2 amended to identify the amendment area as Urban Area; and
- Schedule H amended to identify the amendment area as Urban Area.

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These mapping changes are shown in **Appendix D**.

4 Conclusion



The City of Welland's request to Niagara Region to include the Northwest Welland area within the Region's Urban Area conforms to the Growth Plan under Policies, 2.2.8.4, 2.2.8.5, 2.2.8.6 and 2.2.8.3. The amendment area can also be fully accounted for in the land needs assessment associated with the next municipal comprehensive review through either recognizing the lower density in the existing Designated Greenfield Area or through an increased population allocation to Welland with the upcoming update to Schedule 3 of the Growth Plan.

The Northwest Welland amendment area has existing and planned water, sanitary and transportation infrastructure. The lands are surrounded by the municipal Built-Up Areas in Welland, Pelham and Thorold. Development of the Northwest Welland lands will fill the existing void between these areas and will ensure that greenfield development is sequential, orderly and contiguous. Development of the Northwest Welland lands will also help to create better connectivity between the municipalities and in turn work towards creating a complete community.

In summary, Northwest Welland lands are appropriate lands for future urban development due to their existing and planned infrastructure, proximity to existing built-up areas and ability to contribute to orderly, sequential and contiguous development.

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Appendix A: LNA at 50 Persons and Jobs per hectare



Community Area Land Needs

Step 1

Table R1

	Population			
	2011	2016	2021	2041
Total Pop (including undercoverage)		53,689	55,090	65,650
Census net undercoverage rate		2.60%	2.60%	2.60%
Census Population		52,293	53,658	63,943
Household Population		51,498	52,842	62,971
Non-Household Population		795	816	972
Non-Household Population Rate		1.52%	1.52%	1.52%

Step 2

Table R2b

Household Forecast by Forecast Period				
	<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>	
			Increase in Number of Households	
Total Households				
2016	22,490			
2021	23,490	2016-2021	1,000	
2041	27,719	2021-2041	4,229	

Table R2c

Not Occupied by Usual Residents		Household Forecast by Forecast Period		Growth in Total Housing
<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>		
Household Growth		Increase in Housing Units Not Occupied by Usual		
2016-2021	1,000	2016-2021	20	1,020
2031-2041	4,229	2031-2041	85	4,314

Step 3

Table R3a

Household Forecast by Period and Policy Area				
	<u>Forecast Households by Policy Area*</u>			
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,540	1,175	795	23,510
2041	23,697	3,310	817	27,824
<u>Forecast Share of Household Growth By Policy Area</u>				
	BUA	DGA	Rural	Total
2016-2021	0.4	0.595	0.005	100
2021-2041	0.5	0.495	0.005	100
Total	48%	51%	1%	100%

Forecast Household Growth by Policy Area				
	BUA	DGA	Rural	Total
2016-2021	408	607	5	1,020
2021-2041	2,157	2,135	22	4,314
Total	2,565	2,742	27	5,334

Table R3b

Forecast Growth in Housing Units Not Occupied By Usual Residents				
	BUA	DGA	Rural	Total
2016-2021	8	12	0	20
2021-2041	42	42	0	85
Total	50	54	1	105

Forecast Household Growth by Policy Area - Minus Non Occupied Homes				
	BUA	DGA	Rural	Total
2016-2021	400	595	5	1,000
2021-2041	2,115	2,093	21	4,229
Total	2,515	2,688	26	5,229

Forecast Household by Policy Area - Minus Non Occupied Homes				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,532	1,163	795	23,490
2041	23,647	3,256	816	27,719

Step 4

Table 4a

Persons Per Unit Forecast			
	Household Population	Households	PPU
2016	51,498	22,490	2.29
2021	52,842	23,490	2.25
2041	62,971	27,719	2.27
2016-2041	11,473	5,229	2.19

Table 4b

Persons Per Unit Forecast by Policy Area				
	Households			Total
	BUA	DGA	Rural	
2016	21,132	568	790	22,490
2041	23,647	3,256	816	27,719
Increase 2016-2041	2,515	2,688	26	5,229

Existing Base				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2016 Housholds age to 2041	21,132	568	790	22,490
2041 PPU	2.25	2.53	2.50	2.27
2016 household population in 2041	47,547	1,437	1,975	50,959
New Units (growth from 2016-2041)				
	BUA	DGA	Rural	Total
2016 Households	0	0	0	0
2016 PPU	2.00	2.53	2.50	2.27
2016 Household Population	0	0	0	0
2041 Households	2,515	2,688	26	5,229
2041 PPU	2.00	2.53	2.50	2.27
2041 Household Population	5,017	6,799	65	11,880
Total Units				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2041 Households	23,647	3,256	816	27,719
2041 PPU	2.22	2.53	2.50	2.27
2041 Household Population	52,564	8,236	2,040	62,839

Table 4c

Total Population				
2016 Total Population				
	BUA	DGA	Rural	Total
Household Population	47,870	1,551	2,078	51,499
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	739	24	32	795
Census Population	48,609	1,575	2,110	52,294
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	49,907	1,617	2,166	53,689
2041 Total Population				
	BUA	DGA	Rural	Total
Household Population	52,564	8,236	2,040	62,840
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	811	127	31	970
Census Population	53,375	8,363	2,072	63,810
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	54,800	8,723	2,127	65,650

Employment Land Needs

Table E1

Total Employment Growth to 2041	
Year	Total Employment
2016	17,740
2041	28,760
Growth	11,020

Table E2

Employment by Category						
Year	Major Office	Population Related	Employment Land	Other Rural Based	Total	
2016	0	15,020	2,610	110	17,740	
2041	330	20,720	7,420	290	28,760	
Share of Growth (%)	3%	52%	44%	2%	100%	
Growth by Category	330	5,700	4,810	180	11,020	

Table E3

Employment Growth By Location						
	Major Office	Population Related	Employment Land	Other Rural Based	Total	
Rural	0	57	48	180	285	
Employment Area	0	285	4,762	0	5,047	
Community Area	330	5,358	0	0	5,688	
Total	330	5,700	4,810	180	11,020	

Table E4

Date / Planning Period	Employment in Community Area
2016	13,305
2016-2041	5,688
2041	18,993

Date / Planning Period	Employment in Community Area - DGA
2016	37
2016-2041	2,844
2041	2,881

Step 5

Overall Land Needs Calculation

Community Area Land Needs	
DGA People	8,723
DGA Jobs	2,881
DGA People and Jobs by 2041	11,604
Residents and jobs divided by 50	232
Less Existing DGA	-190
Additional required DGA	42

Appendix B: LNA Recognizing Lower Density in the existing DGA



Community Area Land Needs

Step 1

Table R1

	Population			
	2011	2016	2021	2041
Total Pop (including undercoverage)		53,689	55,090	65,650
Census net undercoverage rate		2.60%	2.60%	2.60%
Census Population		52,293	53,658	63,943
Household Population		51,498	52,842	62,971
Non-Household Population		795	816	972
Non-Household Population Rate		1.52%	1.52%	1.52%

Step 2

Table R2b

Household Forecast by Forecast Period			
<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>	
Total Households		Increase in Number of Households	
2016	22,490		
2021	23,490	2016-2021	1,000
2041	27,719	2021-2041	4,229

Table R2c

Not Occupied by Usual Residents		Household Forecast by Forecast Period		Growth in Total Housing Units
<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>		
Household Growth		Increase in Housing Units Not Occupied by Usual Residents ³		
2016-2021	1,000	2016-2021	20	1,020
2031-2041	4,229	2031-2041	85	4,314

Step 3

Table R3a

Household Forecast by Period and Policy Area				
<u>Forecast Households by Policy Area*</u>				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,540	1,175	795	23,510
2041	23,697	3,310	817	27,824
<u>Forecast Share of Household Growth By Policy Area</u>				
	BUA	DGA	Rural	Total
2016-2021	0.4	0.595	0.005	100
2021-2041	0.5	0.495	0.005	100
Total	48%	51%	1%	100%
<u>Forecast Household Growth by Policy Area</u>				

	BUA	DGA	Rural	Total
2016-2021	408	607	5	1,020
2021-2041	2,157	2,135	22	4,314
Total	2,565	2,742	27	5,334

Table R3b

<u>Forecast Growth in Housing Units Not Occupied By Usual Residents</u>				
	BUA	DGA	Rural	Total
2016-2021	8	12	0	20
2021-2041	42	42	0	85
Total	50	54	1	105

<u>Forecast Household Growth by Policy Area - Minus Non Occupied Homes</u>				
	BUA	DGA	Rural	Total
2016-2021	400	595	5	1,000
2021-2041	2,115	2,093	21	4,229
Total	2,515	2,688	26	5,229

<u>Forecast Household by Policy Area - Minus Non Occupied Homes</u>				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,532	1,163	795	23,490
2041	23,647	3,256	816	27,719

Step 4

Table 4a

Persons Per Unit Forecast			
	Household Population	Households	PPU
2016	51,498	22,490	2.29
2021	52,842	23,490	2.25
2041	62,971	27,719	2.27
2016-2041	11,473	5,229	2.19

Table 4b

Persons Per Unit Forecast by Policy Area				
<u>Households</u>				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2041	23,647	3,256	816	27,719
Increase 2016-2041	2,515	2,688	26	5,229
<u>Existing Base</u>				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2016 Housholds age to 2041	21,132	568	790	22,490
2041 PPU	2.25	2.53	2.50	2.27

2016 household population in 2041	47,547	1,437	1,975	50,959
<u>New Units (growth from 2016-2041)</u>				
	BUA	DGA	Rural	Total
2016 Households	0	0	0	0
2016 PPU	2.00	2.53	2.50	2.27
2016 Household Population	0	0	0	0
2041 Households	2,515	2,688	26	5,229
2041 PPU	2.00	2.53	2.50	2.27
2041 Household Population	5,017	6,799	65	11,880
<u>Total Units</u>				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2041 Households	23,647	3,256	816	27,719
2041 PPU	2.22	2.53	2.50	2.27
2041 Household Population	52,564	8,236	2,040	62,839

Table 4c

<u>Total Population</u>				
<u>2016 Total Population</u>				
	BUA	DGA	Rural	Total
Household Population	47,870	1,551	2,078	51,499
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	739	24	32	795
Census Population	48,609	1,575	2,110	52,294
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	49,907	1,617	2,166	53,689
<u>2041 Total Population</u>				
	BUA	DGA	Rural	Total
Household Population	52,564	8,236	2,040	62,840
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	811	127	31	970
Census Population	53,375	8,363	2,072	63,810
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	54,800	8,723	2,127	65,650

Employment Land Needs

Table E1

Total Employment Growth to 2041	
Year	Total Employment
2016	17,740
2041	28,760
Growth	11,020

Table E2

Employment by Category					
Year	Major Office	Population Related	Employment Land	Other Rural Based	Total
2016	0	15,020	2,610	110	17,740
2041	330	20,720	7,420	290	28,760
Share of Growth (%)	3%	52%	44%	2%	100%
Growth by Category	330	5,700	4,810	180	11,020

Table E3

Employment Growth By Location					
	Major Office	Population Related	Employment Land	Other Rural Based	Total
Rural	0	57	48	180	285
Employment Area	0	285	4,762	0	5,047
Community Area	330	5,358	0	0	5,688
Total	330	5,700	4,810	180	11,020

Table E4

Date / Planning Period	Employment in Community Area
2016	13,305
2016-2041	5,688
2041	18,993

Date / Planning Period	Employment in Community Area - DGA
2016	37
2016-2041	2,844
2041	2,881

Step 5**Existing DGA Density**

Existing DGA Area	190.32
Existing DGA People	6,362
Existing DGA Jobs	385
Existing DGA Density (p&J/ha)	35

Step 6**Overall Land Needs Calculation****Community Land Needs**

DGA People	8,723
DGA Jobs	2,881
DGA People and Jobs by 2041	11,604
Less Residents and jobs in existing DGA	6,747
Residents and jobs in New DGA	4,857
Density in New DGA of 50	97

Appendix C: LNA with additional Population



Community Area Land Needs

Step 1

Table R1

	Population			
	2011	2016	2021	2041
Total Pop (including undercoverage)		53,689	55,090	71,100
Census net undercoverage rate		2.60%	2.60%	2.60%
Census Population		52,293	53,658	69,251
Household Population		51,498	52,842	68,199
Non-Household Population		795	816	1,053
Non-Household Population Rate		1.52%	1.52%	1.52%

Step 2

Table R2b

Household Forecast by Forecast Period			
<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>	
Total Households		Increase in Number of Households	
2016	22,490		
2021	23,490	2016-2021	1,000
2041	30,020	2021-2041	6,530

Table R2c

Not Occupied by Usual Residents		Household Forecast by Forecast Period		Growth in Total Housing
<u>Forecast by Period</u>		<u>Forecast by Growth Period</u>		
Household Growth		Increase in Housing Units Not Occupied by Usual		
2016-2021	1,000	2016-2021	20	1,020
2031-2041	6,530	2031-2041	131	6,661

Step 3

Table R3a

Household Forecast by Period and Policy Area				
<u>Forecast Households by Policy Area*</u>				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,540	1,175	795	23,510
2041	24,871	4,472	828	30,171
<u>Forecast Share of Household Growth By Policy Area</u>				
	BUA	DGA	Rural	Total
2016-2021	0.4	0.595	0.005	100
2021-2041	0.5	0.495	0.005	100
Total	49%	51%	1%	100%

Forecast Household Growth by Policy Area				
	BUA	DGA	Rural	Total
2016-2021	408	607	5	1,020
2021-2041	3,331	3,297	33	6,661
Total	3,739	3,904	38	7,681

Table R3b

Forecast Growth in Housing Units Not Occupied By Usual Residents				
	BUA	DGA	Rural	Total
2016-2021	8	12	0	20
2021-2041	65	65	1	131
Total	73	77	1	151

Forecast Household Growth by Policy Area - Minus Non Occupied Homes				
	BUA	DGA	Rural	Total
2016-2021	400	595	5	1,000
2021-2041	3,265	3,233	33	6,530
Total	3,665	3,828	38	7,530

Forecast Household by Policy Area - Minus Non Occupied Homes				
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2021	21,532	1,163	795	23,490
2041	24,797	4,396	828	30,020

Step 4

Table 4a

Persons Per Unit Forecast			
	Household Population	Households	PPU
2016	51,498	22,490	2.29
2021	52,842	23,490	2.25
2041	68,199	30,020	2.27
2016-2041	16,701	7,530	2.22

Table 4b

Persons Per Unit Forecast by Policy Area				
	Households			
	BUA	DGA	Rural	Total
2016	21,132	568	790	22,490
2041	24,797	4,396	828	30,020
Increase 2016-2041	3,665	3,828	38	7,530

Existing Base				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2016 Households age to 2041	21,132	568	790	22,490
2041 PPU	2.25	2.53	2.50	2.27
2016 household population in 2041	47,547	1,437	1,975	50,959
New Units (growth from 2016-2041)				
	BUA	DGA	Rural	Total
2016 Households	0	0	0	0
2016 PPU	2.00	2.53	2.50	2.27
2016 Household Population	0	0	0	0
2041 Households	3,665	3,828	38	7,530
2041 PPU	2.00	2.53	2.50	2.27
2041 Household Population	7,312	9,680	94	17,107
Total Units				
	BUA	DGA	Rural	Total
2016 Households	21,132	568	790	22,490
2016 PPU	2.27	2.73	2.63	2.29
2016 Household Population	47,870	1,551	2,078	51,499
2041 Households	24,797	4,396	828	30,020
2041 PPU	2.21	2.53	2.50	2.27
2041 Household Population	54,859	11,117	2,069	68,066

Table 4c

Total Population				
2016 Total Population				
	BUA	DGA	Rural	Total
Household Population	47,870	1,551	2,078	51,499
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	739	24	32	795
Census Population	48,609	1,575	2,110	52,294
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	49,907	1,617	2,166	53,689
2041 Total Population				
	BUA	DGA	Rural	Total
Household Population	54,859	11,117	2,069	68,045
Non-Household Population Rate	1.52%	1.52%	1.52%	1.52%
Non-Household Population	847	172	32	1,050
Census Population	55,706	11,289	2,101	69,095
Net Undercoverage Rate	2.60%	2.60%	2.60%	2.60%
Total Population	57,193	11,726	2,157	71,076

Employment Land Needs

Table E1

Total Employment Growth to 2041	
Year	Total Employment
2016	17,740
2041	28,760
Growth	11,020

Table E2

Employment by Category						
Year	Major Office	Population Related	Employment Land	Other Rural Based	Total	
2016	0	15,020	2,610	110	17,740	
2041	330	20,720	7,420	290	28,760	
Share of Growth (%)	3%	52%	44%	2%	100%	
Growth by Category	330	5,700	4,810	180	11,020	

Table E3

Employment Growth By Location						
	Major Office	Population Related	Employment Land	Other Rural Based	Total	
Rural	0	57	48	180	285	
Employment Area	0	285	4,762	0	5,047	
Community Area	330	5,358	0	0	5,688	
Total	330	5,700	4,810	180	11,020	

Table E4

Date / Planning Period	Employment in Community Area
2016	13,305
2016-2041	5,688
2041	18,993

Date / Planning Period	Employment in Community Area - DGA
2016	37
2016-2041	2,844
2041	2,881

Step 5

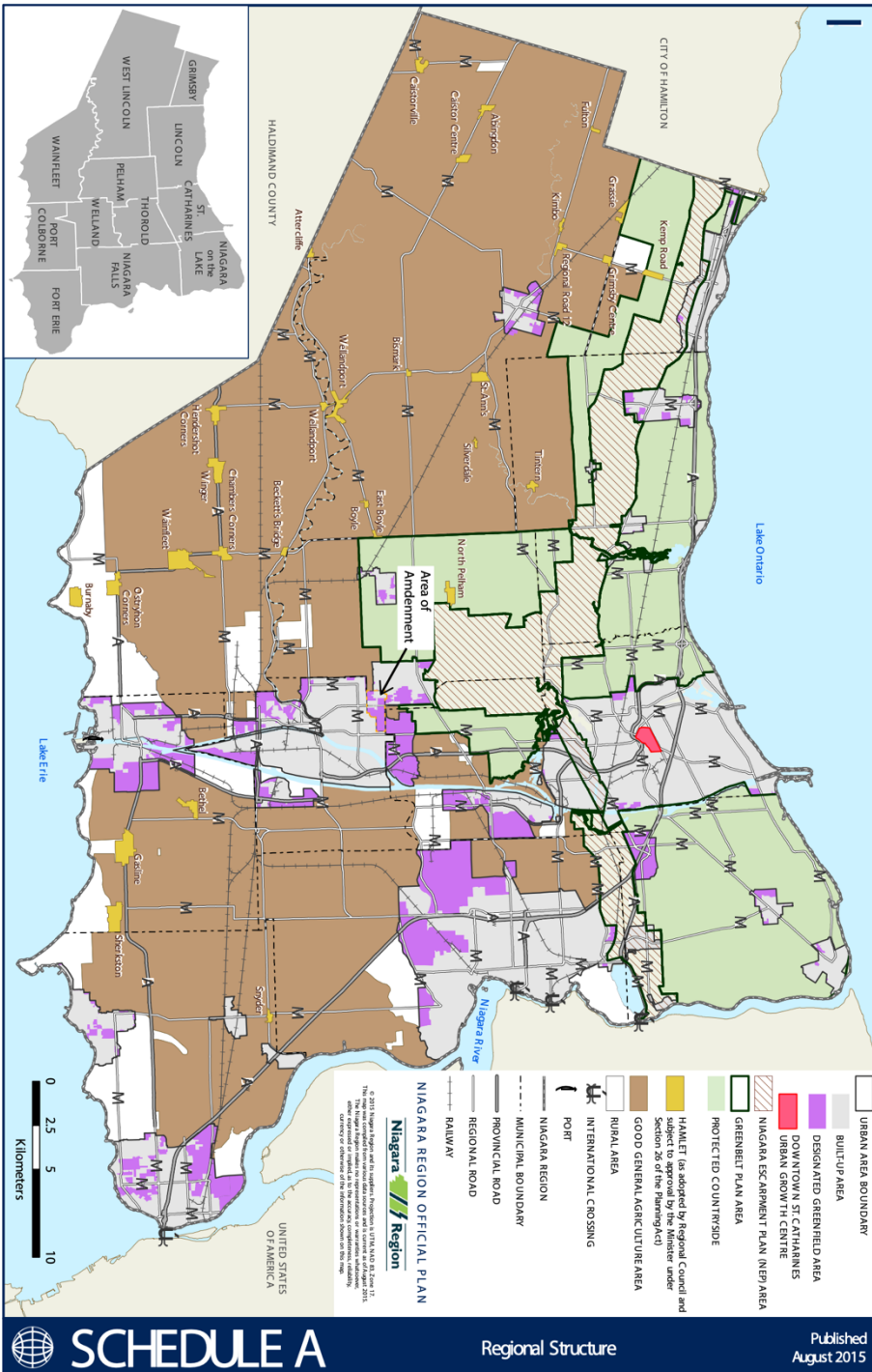
Overall Land Needs Calculation

Community Area Land Needs	
DGA People	11,726
DGA Jobs	2,881
DGA People and Jobs by 2041	14,607
Residents and jobs divided by 50	292
Less Existing DGA	-190
Additional required DGA	102

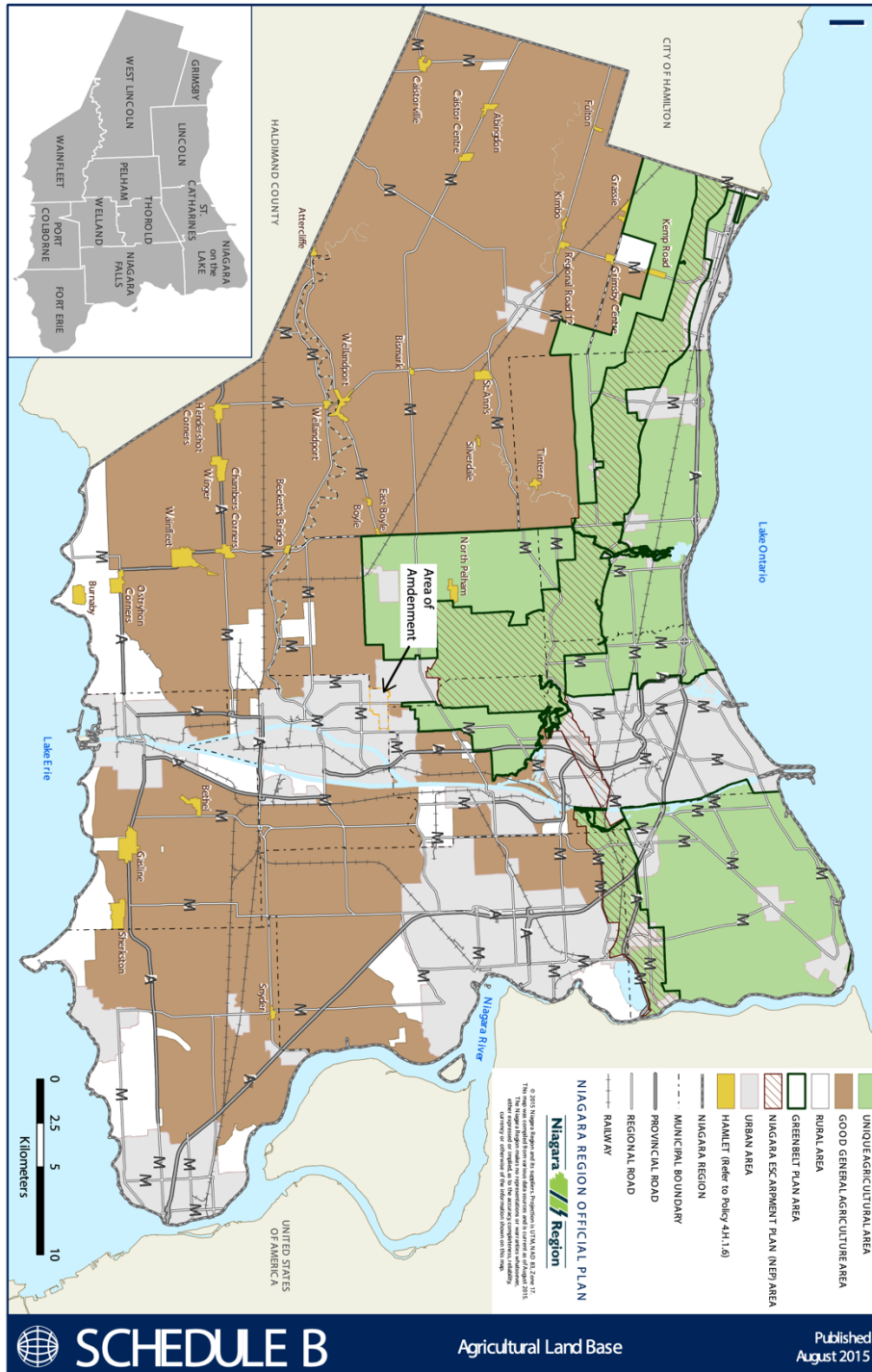
Appendix D: ROPA Schedule Changes



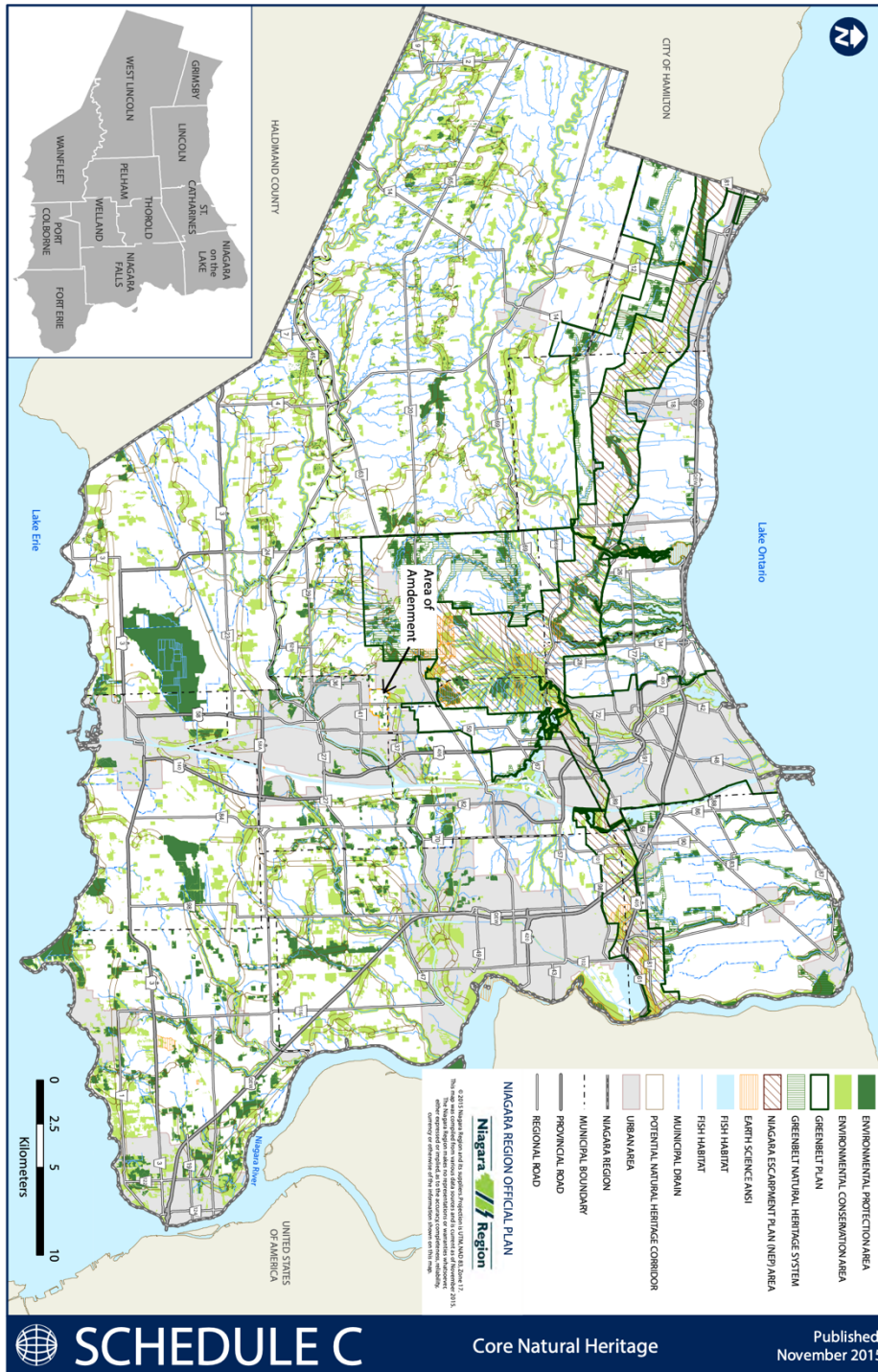
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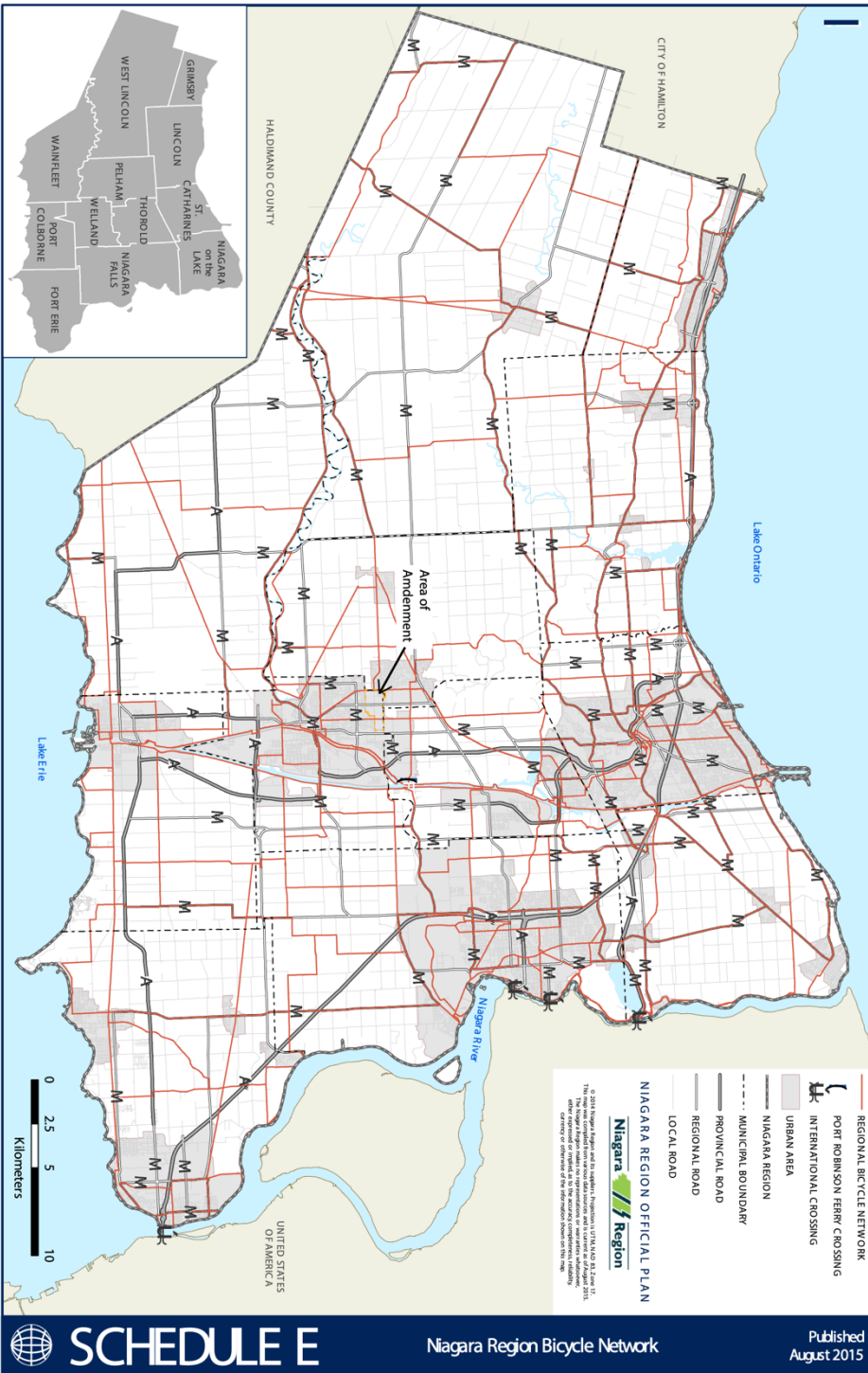
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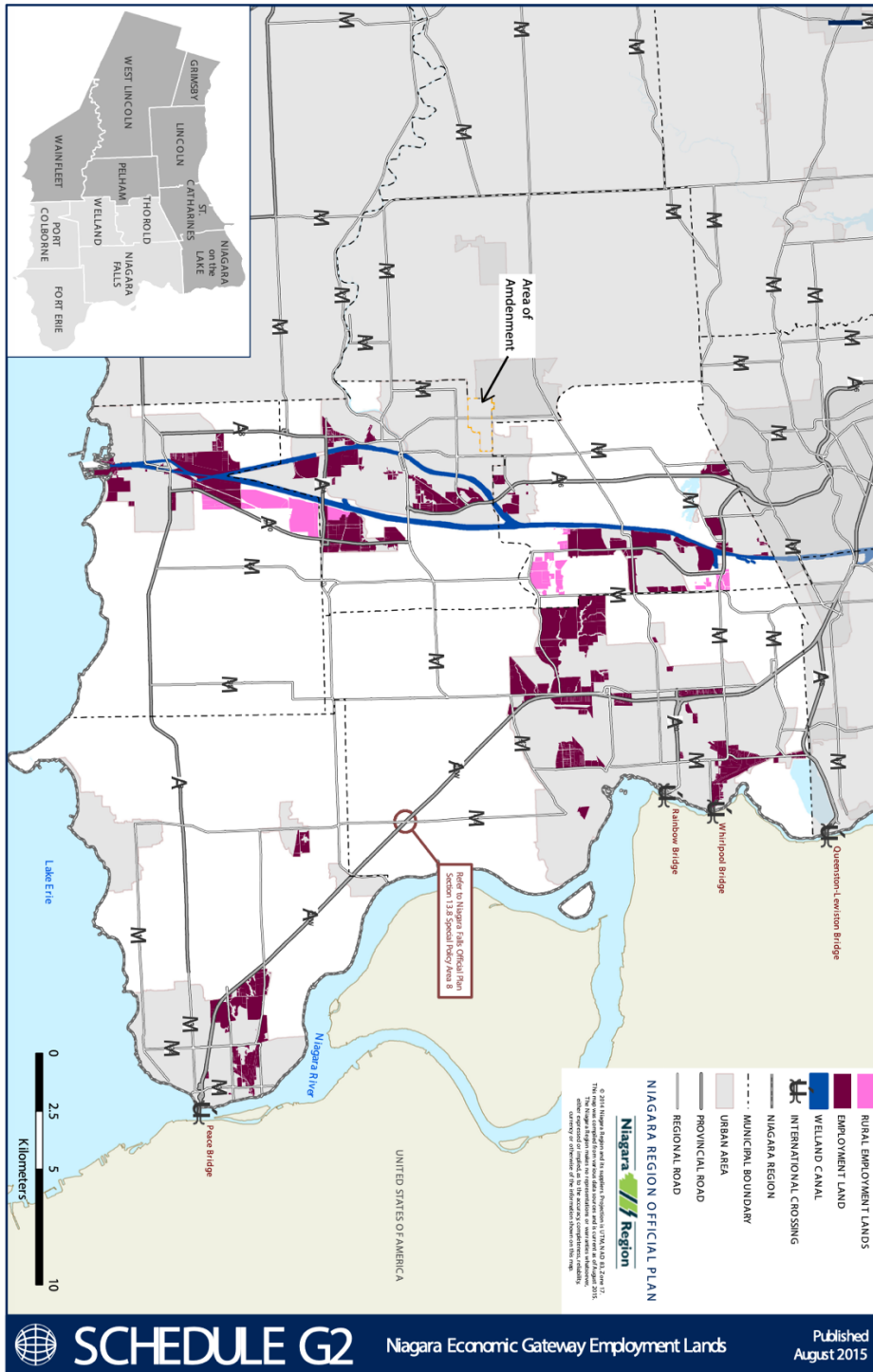
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SCHEDULE G2

Niagara Economic Gateway Employment Lands

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